

**Content and Language Integrated Learning (CLIL)**  
**A Development Trajectory**

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**University of Córdoba**  
**2012**

TITULO: *Content and Language Integrated Learning (CLIL). A Development Trajectory*

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## **Foreword**

Changing the language of instruction in educational systems, or teaching children through an additional language is a historical global phenomenon that is often a direct result of social, political and economic strategic actions. This means that it is done for different reasons. One such reason may be interpreted as a form of repressive action. Another may be to achieve social unity. The European launch of CLIL during 1994 was both political and educational. The political driver was based on a vision that mobility across the European Union required higher levels of language competence in designated languages than was found to be the case at that point in time. The educational driver, influenced by other major bilingual initiatives such as in Canada, was to design and otherwise adapt existing language teaching approaches so as to provide a wide range of students with higher levels of competence. In forging relationships across disciplines, namely linguistic and non-linguistic, educational innovation became steadily established, resulting in outcomes which led to new ways of professional cooperation within and across schools, and new ways of teaching and learning.

## **Content and Language Integrated Learning (CLIL): A Development Trajectory**

### **Introduction: Topic and Scope**

Content and Language Integrated Learning (CLIL) - AICLE Aprendizaje Integrado de Contenidos y Lengua - is a dual-focused educational approach in which an additional language is used for the learning and teaching of content and language with the objective of promoting both content and language mastery to pre-defined levels (Marsh et al. 2010). Since 1990 CLIL has emerged as an example of inter-disciplinary educational convergence (Wolff, 2012) that requires multi-faceted research approaches (Coyle, 2007; Dalton-Puffer & Smit 2007; Lyster 2007; Mehisto 2011; Bonnet 2012).

Eurydice (2006) observes that 'One of the first pieces of legislation regarding cooperation in CLIL is the 1995 Resolution of the Council. It refers to the promotion of innovative methods and, in particular, to the teaching of classes in a foreign language for disciplines other than languages, providing bilingual teaching' (Eurydice 2006:8). The European Commission White Paper which followed this in 1995 also noted that mainstream schools (Secondary) should consider teaching subjects in the first foreign language of the school, as in the 'European Schools' which exist primarily to serve the children of personnel working for the European Institutions. From 1995 to the present, European programmes, educational legislative actions and other drivers such as professional initiatives have resulted in CLIL further establishing itself in education. 'The debate on CLIL is very much alive. Fresh initiatives to promote this still novel methodological approach will be undertaken in the years ahead, probably within the next generation of education

and training programmes for 2007-2013 (Eurydice 2006:8). This has been the case, and the extent to which the position of CLIL has changed since the full European study carried out by Eurydice in 2005-2006 is to be found in a follow-up study to be reported in 2012.

Baetens Beardsmore observes that 'the social situation in each country in general and decisions in educational policy in particular always have an effect, so there is no single blueprint of content and language integration that could be applied in the same way in different countries – no model is for export' (1993:39). In 2006, Eurydice found that the provision of CLIL could be found in the majority of European member states. The length of experience varies considerably, as does the means by which CLIL was introduced. The status of languages used is complex to determine because of a range of terms being used to designate CLIL-type provision. National, regional, heritage languages may be taught using an integrative method, but termed in different ways. The most notable issue relates to terms like bilingual education and immersion.

The levels of education (ISCED 1-3) are the most commonly reported but this does not include pre-schooling, which, in turn, may not be administrated by regional educational administrative infrastructure. Whilst most activity is reported at Secondary level (Eurydice 2006:20) the emergence of integrated methodologies at earlier stages remains commonplace (Eurydice 2006: 20). The organisation and evaluation of CLIL across Europe varies considerably from use of language tests, tests on languages and other subjects, a combination of both, and open systems where students are allocated places in CLIL streams according to application and availability. The subjects taught depend largely on educational sector with creative subjects and environmental sciences prominent at primary level, and science and

social science being reported as common to secondary level (Eurydice 2006: 24). What is significant is the trend towards developing cross-subject modules which extend the degree of integration even further (Coyle, Marsh, Hood 2012). The amount of time given to CLIL-type provision in the curriculum ranges widely from 1-2 hours per week upwards. Likewise the issuance of certification depends on the scale and type of education provided, with special additional certificates being issued in some countries, additional text on existing certificates in others, to no certification but an assumption that language certification will suffice. Given the innovative nature of CLIL provision it is the case that in many countries initial implementation has been through pilot projects (Eurydice 2006:33) which eventually lead to wider implementation (e.g. Italy National Decree on provision of pre-service CLIL training - September 2011 - and in-service education - April 2012- or reduction (e.g. England). In Eurydice (2006: 51) the factors inhibiting general implementation were reported as shortage of teaching staff; costs; restrictive legislation, and lack of appropriate materials.

At the outset CLIL was described as involving a dual focus methodology (Fruhauf, Coyle & Christ 1996; Nikula & Marsh 1997; Marsh & Langé 1999; Marsh, Marsland & Stenberg 2001) that draws on both content and language learning, and which is considered 'integrated' (Marsh & Nikula 1998).

The key characteristics of integrated CLIL practice as summarized by Coyle, Holmes and King (2009:14) indicate that it involves learning environments which have the potential for multi-variant teaching and learning objectives, and experiences. This leads to a synthesis of good practice based on appropriate content (meaningful, new, relevant); incorporation of intercultural understanding (where culture applies to a wide spectrum of forms of diverse interpretation);

processing (personalized, peer-driven, and supported); and progression (sequences of learning scaffolded in relation to content and language, and the thinking demands required for progression in each).

Educational practice in general requires good teaching and learning practices if equally good learning outcomes are to be achieved with a wide cohort of students (see, for example, Wenglinsky 2000). Studies consistently report that more than 40% of the residual variance in measures of student performance is at the class or teacher level (Wright, Horn and Sanders 1996; Alton-Lee 2002; Darling-Hammond & Baratz-Snowden 2005; Ingvarson & Rowe 2007). Sanders and Rivers (1996) report that over three years a high performing teacher can raise the quality of learning outcomes by 53 percentile points compared to a low-performing teacher with students who start at the same achievement level. In addition research on the impact of quality school leadership in schools which combines administrative and instructional practices reveal a significant impact. Marzano, Waters and McNulty (2005) report an increase in student achievement of over 20 percentile points where an above-average principal leads a school and focuses on instructional practices. In order to successfully integrate content and language through CLIL it is understandable that expertise has focused on the means by which to achieve quality outcomes, even if practices exist where the quality of learning outcomes is low.

In recognizing that CLIL practice impacts on a range of key educational quality principals, it is the case that research needs to be multivariate. Often subject to research within a linguistic rather than non-linguistic framework (Dalton-Puffer 2007; Lasagabaster 2007; Heine 2010, Llinares, Morton & Whittaker 2012; Navés 2011; Pérez-Canado 2012; Ruiz de Zarobe & Jiménez Catalán 2009; Zydatiś 2012),

CLIL practice can be interdisciplinary, multidisciplinary, thematic, synergetic, or involve fusion in a form of project-based learning environment (Vollmer 2008).

In the last decade the dual focus on achieving simultaneous content and language learning outcomes has been influenced by multi-disciplinary educational research and dialogue (Mehisto 2012). This has resulted in the triple focus concept, whereby content and language goals are pursued with understanding of student cognition, usually referred to as thinking skills (Coyle et al. 2010). This triple focus is within the remit of researchers in the fields of language awareness (Svalberg 2007; Yassin et al. 2010; Llurda 2010) and the educational neurosciences (Fischer et al. 2007; Adescope et al. 2010; Ansari et al. 2011; Campbell 2011). One of the key issues relates to being able to differentiate learning within the curriculum through understanding of the thinking skills, content, and language required to achieve successful learning.

CLIL has invited a challenge to the status quo whereby subjects are learned as separate disciplines (Wolff 2012). This is one characteristic of the CLIL development trajectory in Europe (Eurydice 2012), and increasingly in other continents such as Australia (Smala 2009; Turner 2012), East Asia (Shigeru 2011), South East Asia (Yassin 2009); and South America (Banegas 2012) over the period 1994-2012.

This thesis overview aims to describe the inter-relatedness of CLIL with respect to good educational practice (Hattie 2007; Sahlberg 2011); and new insights through certain studies of the mind and brain which influence our understanding of educational practices (OECD 2002; Pink 2005; OECD 2007; Jukes et al 2010). Thus it attempts to give attention to some aspects of the forces that have enabled the development trajectory to be driven. This is an attempt to explicate, for the first

time, how and why this particular innovation became established in educational practice internationally in respect to selected driving forces.

### **Summary Introduction to the Five Publications**

The research leading to publication of CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential, (2002) European Commission: Public Services Contract DG EAC 3601, Brussels: European Commission was based on review and summary of existing research, and analysis of outcomes with respect to guiding future policy proposals and development within the European Union. The report focuses on two major issues with respect to teaching and learning through an additional language: the emergent European dimension through supra-national declarations, resolutions, and communications; and the emergent European dimension through actions, projects and initiatives 1989 – 2001. The study was used in the strategic development of the European Year of Languages (2001), and the 2004-2006 Action Plan for Languages in Education: promoting language Learning and Linguistic Diversity.

The research leading to publication of Special Educational Needs in Europe: the Teaching & Learning of Languages (2006) Public Services Contract DG EAC 230303, Brussels: European Commission, was based on the identification of evidence to support good practices in supporting language learning for students with special and specific needs. The report focuses on identification of research which provides insights into good practice for students with a wide variety of specific educational needs. The report focuses on inter-linked research and practice issues: cognitive engagement, problem-solving and higher-order thinking; learners with special and specific needs; integrated language learning educational



provision, and applications of SEN provision integrated content and language learning approaches. The study was used in the strategic development for the European Year of People with Disabilities (2003).

The encyclopedia article *Language Awareness & CLIL*, (2007) *Encyclopedia of Language and Education*, New York & Berlin: Springer Science and Business Media, is a review article which examines the inter-relationship between language awareness and CLIL. The article focuses on three main issues: developing language awareness; teacher's language awareness, and learner's language awareness.

The research leading to publication of *Study of the Contribution of Multilingualism to Creativity* (2009) Science Report, European Commission, Public Services Contract EACEA/2007/3995/2, Brussels: European Commission was based on a meta-study of available evidence to support or otherwise challenge a set of research hypotheses on the relationship between multilingualism and creativity. The study involved examination of primary research evidence from different disciplines, the creation of a peer-reviewed compendium of key research reports and break-down of findings according to cognitive flexibility and functioning, and interpersonal communication.

The encyclopedia article *Content and Language Integrated Learning* (2011) *Encyclopedia of Applied Linguistics*, New York: Wiley is a review article which examines the role of CLIL within the scope of applied linguistics in respect to origins and emergence of CLIL; consolidation of insights from the educational and neurosciences; demand for languages; internet-based networking; and competence-based-education.

### **Justification for the Five Publications**

In recent years global forces have led to considerable pressures being exerted on societies. Socio-demographic shift, scientific and technological innovation, new knowledge and competence needs, governance, safety and security, economic shift are a few examples of where globalisation is exerting influence on existing realities. These pressures often lead to the direct experience of change, and the recognition that change needs to be established.

Moujaes et al. (2012) examine how change has impacted on the education sector: 'Globalization, new technology, and changing social patterns have significantly disrupted the education sector over the past decade. National education systems have scrambled to respond to these shifts, which are likely to increase in the future. In that context, transformation in the new sector simply does not work. The specific initiatives may be well-intended, yet they fail during implementation. One major reason is a lack of communication and collaboration—policymakers often fail to sufficiently engage with stakeholders: school administrators, teachers, parents, students, the private sector, and the third sector (Moujaes et al. 2012:1).

Transformation can mean introduction of wholly new paradigms, or the creation of new ways of working through inter-connecting examples of existing good practices in novel and innovative ways.

This thesis concerns one such example of inter-connectedness relating to languages in education. The three report publications were all developed on the basis of Calls for Tender by the European Commission in order to understand more deeply certain aspects of change, transformation and innovative practices. These all focus through to integrated ways of providing education, and specifically

Content and Language Integrated Learning (CLIL).

Each of the European Commission reports are unique. Prior to 2002, no existing research had been carried out to examine and explicate integrated language learning as a pan European phenomenon. Prior to 2006, the same applied to the teaching of languages to students in European education and institutions and the trends resulting from inclusion. Prior to 2009, the same applied to the contribution of multilingualism to creativity in relation to languages. These reports were original and innovative, and the reason why the European Commission ordered their production was because there was a knowledge deficit in each of these respective fields. The two remaining encyclopedia articles are also original in that they focus on content and language integrated learning as a cross-disciplinary endeavour.

'We are entering an age where the added value of learning languages, linked with the development of inter-related electronic literacies, is becoming profoundly important' is reported in the Talking the Future 2010-2020 CCN Foresight Think Tank Report (Asikainen et al. 2010:4). This report describes a number of factors described as driving innovation. These are neurological, cognitive, motivational and social bases of learning; dynamics of lifelong learning and the potential of E-Learning 2.0/3.0; value creating networks and clusters of innovation; education systems and informal learning; human technologies that support learning; technology-based and operating environments, and private and public sector educational and resources providers. The publications in this thesis include focus on the majority of these forces particularly through linking research from different disciplines to teaching and learning practices.

### **Objectives of the Thesis**

The primary objective of this thesis is to articulate the development of Content and Language Integrated Learning (CLIL) as an educational approach which brings together complementary educational initiatives and socio-political requirements. The period 1990-2012 has seen considerable changes in societies and demands for change in respective educational systems. Through selected reports this thesis tracks certain features of these developments as they affect curricular integration in respect to languages and non-language subjects.

The five publications focus on integration, inclusion, language awareness, impact of language learning and use on mind and brain, and CLIL as an educational approach.

The primary objective is addressed through a publication history, and thesis-specific update and review chapters which concern four main inter-linked fields of educational expertise as objectives. Each of these is explored in more detail in the overview articles found in Chapters 1-5.

#### Sub-objective 1 Languages in Education

Publication: **CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential**, (2002) European Commission: Public Services Contract DG EAC 3601, Brussels: European Commission

This publication examines historical approaches to languages in education and the emergence of deeper integration of language learning with genuine content learning and purpose. It looks at a pan-European development of differing initiatives which are bound by the main principle of integration of languages with non-language disciplines.

#### Sub-objective 2 Languages and Inclusion

Publication: **Special Educational Needs in Europe: The Teaching & Learning of Languages**, (2006) Public Services Contract DG EAC 230303, Brussels: European Commission

This publication examines the extent to which learners with special or specific needs are given access to language learning, pan-European trends where inclusion requires greater access to language learning, and the means for achieving this with diverse learners through forms of integrated language learning. This then applies to a large cohort of students in mainstream education with respect to both equity and access to appropriate forms of language education.

Sub-objective 3 Language Awareness

Publication: **Language Awareness & CLIL**, (2007) Encyclopedia of Language and Education, New York & Berlin: Springer Science and Business Media

This publication describes the relevance of two separate fields of complementary interest, language awareness where an individual develops a deeper understanding of language in use, and integrated language learning as a means to achieve this in mainstream education. The article thus articulates that through integrated approaches the development of language awareness can be achieved through means which are difficult to achieve in conventional language learning due to curricular constraints of time and standard language learning objectives.

Sub-objective 4 Mind, Brain and Education

Publication: **Study of the Contribution of Multilingualism to Creativity**, (2009) Science Report, European Commission, Public Services Contract EACEA/2007/3995/2, Brussels: European Commission

This report examines the impact of enhanced language learning, awareness and use in respect to evidence found in significant primary research on the mind and brain.

It argues that language use through language learning enhances impact in a way which links back to how we learn languages in education. The indicators for the advantages of more widespread exposure to integrated language learning in the curriculum is presented and justification given in respect to learning objectives required in curricula, particularly in respect to competences.

### **Primary Hypothesis**

That the adoption of the term Content and Language Integrated Learning (CLIL) in the early 1990s as a generic term to articulate practices appropriate for dual language teaching and learning environments would take root as an emergent innovation in inter-linked fields of educational expertise.

### **Description of the Scientific Dimension of the Five Publications**

This thesis is based on five core publications. Each of these has resulted from the use of one or more different methodologies. These are evidence-based synthesis, meta-analysis, narrative review, and case studies.

CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential, (2002) European Commission: Public Services Contract DG EAC 3601, Brussels: European Commission, concerns the teaching of a subject through a foreign language which is hereafter referred to as CLIL/EMILE: in which CLIL is an acronym for Content and Language Integrated Learning; whereas EMILE is an acronym for Enseignement d'une Matière par l'Intégration d'une Langue Etrangère. In the original terms of reference CLIL and EMILE refer to any dual-focused educational context in which an additional language, thus not usually the first

language of the learners involved, is used as a medium in the teaching and learning of non-language content.

The original study was one of four launched during the same period for tendering by September 2001 entitled Four Studies concerning aspects of the teaching and learning of foreign languages in Europe. These concerned the training of foreign language teachers, the early learning of foreign languages, the teaching of other subjects through the medium of a foreign language, and the impact of the use of new information technologies and Internet on the teaching of foreign languages, and on the role of teachers of a foreign language.

The rationale was to provide the Commission with evidence-based practical information and analysis constituting a broad survey of the situation 'on the ground' in Europe to guide future policy proposals and development.

The work was to be done within the framework of the 1995 White Paper "Teaching and learning: towards the learning society" (1995), whereby the Commission stresses the importance of every European citizen being able to speak two Community languages in addition to his / her mother tongue.

The technical requirements were as follows: to review and summarise recent relevant literature, actions and developments in Europe concerning Content and Language Integrated Learning in pre-primary, primary, general secondary, secondary vocational and further education, analyse the results of experiments with this approach, and define the extent to which this approach is used in Europe. Conclusions were to be drawn on: the relevance of this approach for the Commission's overall language objectives; the potential of this approach for improving the quality of foreign language teaching; the potential of this approach

for increasing the number of successful foreign language learners; and to present at least ten detailed case studies, from at least seven different countries, of high quality innovation or best practice in this field, together with practical proposals for extending best practice in these areas to other countries. Furthermore, it was to define the conditions for the successful extension of this approach and make proposals about opportunities for further developments in this area at European or national level.

The policy focus points upon which the report was to contribute involved greater understanding of the following: the promotion of linguistic diversity (including in formal education systems) and in particular the encouragement of people to learn the less widely used and less taught languages; the objective that every citizen should be able to speak his/ her mother tongue plus two other European Community languages; improving the quality of foreign language learning; and increasing the quantity of foreign language learning.

The reference points cited included certain relevant studies, publications, databases, networks, etc., which exist at European, national or regional level, one of which was co-authored by this author, namely, *Profiling European CLIL Classrooms* (Marsh, Maljers & Hartiala 2001).

The objectives are described as in the original text as comprising analysis, observations, comment and recommendations on CLIL/ EMILE with respect to recent literature, actions, and developments in pre-primary, primary, general secondary, secondary vocational and further education. It analyses results of experimentation and outlines the extent to which the approach is used in Europe. Comment and conclusions focus on the relevance of CLIL/EMILE for the European Commission's overall language objectives, the potential of the approach for



improving the quality of foreign language teaching, and increasing the number of successful foreign language learners. It presents examples of innovation and good practice, defines conditions for successful extension, and makes proposals for further developments in this area at the European and national levels.

The methodological process report involved a dual-plane approach described in the original text. It involved a consultancy group comprising key European experts representing diverse professional interests was formed so as to provide advice, guidance, feedback and input. An advisory group was also formed which was instrumental in a search process by which existing publications, articles, unpublished research documentation and forthcoming publications and multimedia were examined. In addition existing networks, thematic network project groups, ad hoc professional interest groups and individuals were approached through calls for information, internet searches and personal contact. Information and data collection led to a process of consolidation leading to text construction. Even though a wide range of people have contributed to this process the author remains solely responsible for final interpretation and the views expressed herein.

This approach enabled use of mainly evidence-based synthesis, research and narrative review through mainly desk-based research based upon existing primary and secondary sources.

The evidence-based synthesis examined parallel development paths concerning languages in education, education, and trans-national initiatives by which to influence the development paths. This was done by examining all European Commission and Council of Europe official and semi-official documentation and

acts, in the form of communications, treaties and recommendations. In addition certain actions, projects and initiatives are also examined within the scope of the original publication and the overview written for the purpose of this thesis. The synthesis was complemented by 17 specific case study examples, as required by the Commission in its original Terms of Reference. These defined purpose, place and level of specific development initiatives. Recommendations on the basis of societal, systems, strategic and practice actions were then compiled and subject to extensive peer review. This was to strengthen syndication across countries, expert bodies and sectors.

Narrative review was compiled by this author on the basis of knowledge of the fields involved and involvement in multiple networking and other research-based affiliations. The review aspect concerns a critical appraisal of the situation-on-the-ground in the European Union with respect to the situation as of 2000-2001. It also provides a historical overview and situates this in the course of CLIL development at that particular time.

The structure of the report is drawn from the original. The report opens with a set of external statements provided by key European experts in differing fields of expertise on the relevance and potential of CLIL/EMILE. These include additional comment on recent developments and extension issues. Specific focus is made on the relevance of the approach for fulfilling the European Commission's overall language objectives, and its potential for improving the quality of foreign language teaching and increasing the number of successful foreign language learners.

Chapter 1 (Emergence) is a historical stock-taking exercise. It traces actions and developments in Europe in terms of what is now considered effective language learning, alongside the impact of integration on language learning needs, in respect

to the emergence, position and role of CLIL/EMILE. This chapter contextualizes CLIL/EMILE within a pedagogical and socio-historical framework in order to establish the grounds for discussion of future relevance and potential. It can be considered as a non-core introductory text on the origins and position of CLIL/EMILE. Chapter 2 (Dimensions) summarizes key development issues relating to recent literature, research outcomes and findings, actions, and events. It depicts the role of CLIL/EMILE as a multi-faceted educational innovation that is continuing to enter the whole educational spectrum from kindergarten through to adult education. In so doing it describes core issues relating to theoretical justification, concerns and debate, and introduces conditions and opportunities for successful extension.

Chapter 3 (Realization) examines specific types of actions, developments and implementation, and assesses the extent to which the approach is used in selected European countries. Chapter 4 (Delivery) provides 17 case study profiles from 12 different countries that exemplify potentially interesting and high quality innovation, and best practice. Each case comments on transferability potential and provides indicators for successful extension. Chapter 5 (Added value) focuses on successful extension. Identified tangible success factors, in terms of added value, are described alongside core development issues which would enable CLIL/EMILE to flourish in specific environments. Chapter 6 (Future prospects) examines successful extension of CLIL/EMILE in terms of opportunities and development challenges. Claiming that contemporary European socio-political linguistic needs can only realistically be fulfilled through this educational approach, it looks at available options and provides comment on practical solutions.

Chapters 2-6 lay the groundwork for establishing the conditions for ensuring successful extension of this approach throughout the European Union and associated countries which are then formulated as recommendations. Chapter 7 (Recommendations for extending good practice) comprises development steps that should be considered at the European level in addition to learner, practitioner and other stakeholder steps that are recommended at member state national levels.

Special Educational Needs in Europe: The Teaching & Learning of Languages, (2006) Public Services Contract DG EAC 230303, Brussels: European Commission, concerns the teaching of languages to students with special needs (ISCED 1-2). The overall aim was to advise the European Commission through provision of practical information and analysis constituting a broad survey of the situation on the ground in Europe. The study was commissioned so as to provide data for future policy proposals and developments.

The Rationale of the study was described as follows in the original contractual documentation: "The learning of foreign languages is included in the curriculum of compulsory education in all European countries. Provision for teaching languages to students with special needs varies considerably. To date, this is an area in which there has been relatively little sharing of experience or good practice, at either policy or classroom level, in Europe. In line with the objectives of the European Year of People with Disabilities, the main objective of the study was meant to gather and analyse examples of good practice in catering for pupils with special

needs in language learning. It should provide a sound basis for future discussion and policy making in this area’.

The European Year of Disabilities specifically set out to ‘pay special attention to awareness of the right of children and young people with disabilities to equality in education, so as to encourage and support their full integration in society and to promote the development of European co-operation between those professionally involved in the education of children and young people with disabilities, in order to improve the integration of pupils and students with special needs in ordinary or specialised establishments and in national and European exchange programmes’.

The technical requirements were as follows: review and summarise recent relevant literature, materials and developments in Europe (and elsewhere) concerning the teaching of languages to learners with special needs in compulsory schooling (whether in mainstream education or not); analyse the results of the methodologies surveyed according to different kinds of disabilities / special needs encountered; describe the extent to which appropriate methods and materials for teaching languages to learners with special needs are used in Europe; present at least ten detailed case studies, from at least seven different countries, of high quality innovation or good practice in this field, together with practical proposals for extending them to other countries. The study cases were to cover a range as wide as possible of different disabilities / special needs; and make proposals about opportunities for further developments in this area at European or national level.

The reference points cited included certain relevant studies, publications, databases, networks, etc. which exist at European, national or regional level, one of

which was CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential, (2002) European Commission: Public Services Contract DG EAC 3601, Brussels: European Commission.

The language focus concerned: ‘Any language taught but the learner’s mother tongue when the latter is also the main language of instruction of the educational establishment concerned. For example, on the one hand the study will cover: the teaching of German to Italian citizens in Italy (foreign language teaching); the teaching of Danish to Greek immigrants in Denmark (second language teaching); the teaching of Sami in Norway (regional/minority language teaching) and the teaching of Urdu in the United Kingdom (migrant language teaching) where those languages are not the main languages of instruction of the educational establishment concerned. On the other hand the study will not cover for instance the teaching of French to native French speakers’.

The study was to relate comments and conclusions to the following key policies of the European Union: the promotion of linguistic diversity (including in formal education systems) and in particular the encouragement of people to learn the less widely used and less taught language; the objective that every citizen should be able to speak his/ her mother tongue plus two other European Community languages; improving the quality of foreign language learning; increasing the quantity of foreign language learning; improving the quality of foreign language teaching.

The methodology was considered as a combination of survey and desk-based research in the original contractual documentation. At the outset this was complemented with the establishment of an internet-based network of individuals across the European Union who were invited to participate through provision of

information, especially identification of practice, research and case studies in the countries of the European Union. In addition a small number of researchers and other stakeholders (parents and a student) were also invited to participate through short statements which were included in the final report. At each stage of the project cycle preliminary results were presented to the European Commission for executive decision-making.

A Core Production Team and External Sourcing & Monitoring Expert Group was established so as to ensure that expertise in SEN and Language Learning is enhanced by representation of the major platforms by which to consolidate information and ensure maximum clarity of proposals for further developments at European and national levels. These platforms represent research in SEN, networking through the European Agency for Development in Special Needs Education amongst others, and language teaching practice through the FIPLV and CEF/ELP national development groups of the Council of Europe.

In order to ensure that the study would be inclusive in terms of national contexts and SEN sectors, it was necessary to establish a clear definition to suit the rationale, objectives and scope of the field. The decision was made to have the term SEN be inclusive of the following: General Learning Difficulties; Specific Learning Difficulties (including dyslexia); Speech and Language Disorders; Cognitive Disorders (including autism, Asperger's and semantic-pragmatic disorders); Motor Function Disorders (including dyspraxia and cerebral palsy); Behavioural Difficulties (including hyperactivity/attention deficit disorders); Sensory Impairments (including sensory and hearing impaired), & other specific medical categories.

The process started through an invitation for participation through questionnaire and interviews on scale, good practice, specification of needs and recommendations for good practice through: European Agency for Development in Special Needs Education; Federation Internationale des Professeurs de Langues Vivantes (FIPLV); Council of Europe CEF/ELP national development teams (40 countries).

This was followed by an invitation for participation through contacts to be made through other existing SEN and language learning networks through production team and external experts. Library and Internet analysis followed of existing publications, articles, unpublished research documentation and forthcoming publications and multi-media.

Analysis combined research input with reports on good practice within and across categories alongside statistical data analysis and modelling of provision across Europe in specific languages. This was drafted in a set of brief progress reports according to results and submitted to external experts for formative forms of evaluation and feedback. Recommendations for good practice at national and European levels were continuously collected and drafted.

Consolidation followed through review of information and data collection and retrieval approaches, alongside evaluation and feedback reports, and identifying shortcomings in relation to factors such as levels, languages, regions amongst others identified, followed by report finalization.



The final report examines policy issues, practical solutions for specific SEN conditions, and examples of good practice. The structure of the report is drawn from the original as here: 'Chapter 1 gives an overview of quantitative findings and generic perspectives. Chapter 2 contains comment and insights from the field on specific SEN types, generic features of good practice, target languages, professional support resources and testing. Chapter 3 provides case profile examples of good practice and innovation. Chapter 4 summarizes the added value of further efforts in this area. Chapter 5 contains the proposals for further development and recommendations'.

Language Awareness & CLIL, (2007) Encyclopedia of Language and Education, New York Berlin: Springer Science and Business Media is a review article examining the inter-relatedness of two educational phenomena.

The Study of the Contribution of Multilingualism to Creativity (2009), Science Report, European Commission, Public services Contract EACEA/2007/3995/2, Brussels: European Commission concerns a meta study examining evidence of the contribution made by multilingualism to creativity. This report is one part of a larger study linked to the 2009 European Year of Creativity. The science report only involved evidence of scientific evidence by which to provide the European Commission with information to support decision-making processes. The report initiative was part of the European Union's Lifelong Learning Programme 2007-2013, which is also involved with means by which to improve levels of language learning and provision of language teaching across Europe. In the original project documentation creativity was assumed to involve the generation of new ideas. The rationale assumed that creativity, as a key component of processes of innovation,

combined with knowledge, is a driving force to enable sustainable growth as in the Lisbon Strategy.

The technical requirements required responding to a set of hypotheses. These were:

- There is a link between multilingualism and creativity, which mutually influence each other in such a way that knowledge of several languages has a positive impact on creativity and vice-versa.
- The fact that multilingualism enables people to have access to other ways of organizing thought and of perceiving the world and to have different sources of information has beneficial consequences for creative ability.
- Creativity is enhanced through the use of several languages (more languages, more creativity)
- Creativity ability increases with language learning since the acquisition of new reference frameworks with each new language provides new perspectives that encourage creative thought.
- The fact that being multilingual helps to uncover and establish different, varied connections between concepts and ideas and, consequently, positively influences creative ability.

The research was to include psychological, cultural and linguistic evidence, amongst others and take into account existing projects within the European Commission's 6<sup>th</sup> Framework Research programme under the research topic 'linguistic Diversity in a European Knowledge-based society'. The results to be

achieved included a comprehensive compendium of the existing scientific research and literature concerning multilingualism and its links with creativity. The analysis of the scientific research and literature to be examined in the field of creativity and multilingualism was to cover all European countries as well as other countries having a significant research in this field. The study was thus both global, and multilingual during the scientific phase.

The methodology involved a search process in which data was collected using a variety of search tools enabling access to higher education and research institute facilities. These enabled access to books, journals and reports in different languages across the world.

A major part of the search phase involved accessing documents and assessing their validity for this process. About 10% of documents examined were considered worthy of inclusion in the data base which was then subject to peer group critique. About 3000 publications and reports were included in the initial search phase.

Only primary research was considered throughout the search processes. The amount of rigorous primary research available in appropriate publications appears to have been fairly limited up to about the year 2000 when research through the cognitive sciences and neurosciences started to expand. This led to a review of research without bias in relation to period of publication but also access to a considerable amount of new research resulting from research on the mind and brain.

Consolidation meetings were held where the database was subjected to peer review by experts from different disciplines. During the process that term creativity was given a different working title, namely in relation to creative

conceptual expansion: an ability to think of something new by extending conceptual boundaries of an existing concept through synthesizing it with other concepts'. This enabled the data base to be categorized according to specific broad findings. These involve cognitive flexibility (ability to employ a range of cognitive processing strategies when responding to the environment through adaptability and fluidity in thinking processes and outcomes); cognitive functioning (mental processes which involve operations such as perception, memory, creation of imagery, meta-control in thinking processes in respect to operational/physiological aspects of the brain, and thinking processes); Interpersonal Communication (social abilities, often meta-linguistic and involving special awareness, using languages for human communication which derive from being able to activate diverse language systems).; and innovative-generating interactions (constructive synergistic outcomes resulting from multilingual individuals working together in groups where interactions lead to innovation generation).

The structure of the final report, which was to be a succinct communication for political decision-makers, education and cultural authorities and the general public, was produced alongside the final compendium. It describes the key indicator areas on the basis of high recurring results from science in the field.

Content and Language Integrated Learning (2011) Encyclopedia of Applied Linguistics, New York: Wiley, is a review article introducing CLIL to a broad interdisciplinary readership.

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**Chapter 1                      The European Socio-political Dimension**

**CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential.** (2002) European Commission: Public Services Contract DG EAC 3601: Brussels: European Commission.

**1.1 The Emergent European Dimension through Supra-national Declarations, Resolutions, and Communications**

Language teaching and learning in the European Union has been subject to the influence of supra-national, national and regional directives, other forms of recommendations, actions and projects since the 1950s. At the supra-national level these have been under the auspices of European Union bodies, and those of the Council of Europe. This chapter provides an overview of those supra-national actions, which directly, or indirectly, have cast influence on the development of language teaching and learning in Europe. European Union initiatives have mainly been through treaties, resolutions of the Education Council, parliamentary decisions and resolutions, and project actions. Council of Europe initiatives have generally been through expert forums.

In 1958, an EEC Council Regulation (EEC Council, 1958) determined which languages were to be used with official status within the European Economic Community. This set the stage for a socio-political vision of Europe as a plurilingual entity in which citizens would be required to learn and use other European languages to a greater or lesser extent.

For the following two decades relatively little was done at the supra-national level to support means by which to enable a broad section of the populations to more effectively learn languages. A breakthrough was made in 1976 when the Education

Council (Education Council 1976) listed objectives concerning the teaching and learning of foreign languages and more specifically, promotion of language teaching outside the traditional school system. This resolution listed objectives concerning the teaching and learning of foreign languages declaring that all pupils should have the opportunity to learn at least one other Community language; that language teachers should spend periods of study in a target language country; and that language teaching and learning should be promoted outside the traditional school systems.

In response to the 1976 Resolution, the European Commission (European Commission, 1978) made a proposal which was to recommend initiatives be taken on early language learning, student mobility, the inclusion of less able students and those in vocational education in language teaching provision. Significantly, in relation to the subject of this thesis, this proposal introduced the notion that teaching in schools could be through the medium of more than one language.

In 1983 a Parliament resolution (European Parliament, 1983) was passed concerning language teaching in the European Union, calling upon the European Commission to both implement an action plan by which exchanges could be facilitated across countries for teachers and students; and, to produce a new programme by which to improve foreign language teaching and learning. This was followed in the same year by a recommendation by the European Council (European Council, 1983) supporting the need to promote and facilitate effective means for language teaching and learning within the European Community.

In 1984, The European Parliament (European Parliament, 1984) passed a Resolution on the use of languages in the Community that reaffirmed that all

languages have intrinsic value, and that measures for promoting the use of Community languages be encouraged. In addition, this Resolution called upon Member States to recognise the teaching of one or more Community languages as important subjects from primary education onwards, and to facilitate training for teachers of languages to include study time in countries of the languages they teach. In the same year, The Education Council (Education Council, 1984) made a Resolution declaring that it was necessary to give fresh impetus to the means by which foreign languages were taught and learnt, and to encourage cooperation between Member States on initial and in-service training of teachers of foreign languages, including the role of language assistants and the setting up of exchanges for students alongside recognized study periods for those students in higher education.

The European Council Milan Summit of 1985 (European Council, 1985) declared that citizens should have access to forms of language teaching provision which would provide a practical knowledge of other Community languages, and recommended that students should have the opportunity to learn two foreign languages within the basic education curriculum. In addition it stated that ICT should be more exploited for the teaching of languages. Later that year the Education Council (Education Council, 1985) again reported the need for Member States to take measures to promote the teaching of foreign languages.

Following the 'Language learning and Teaching Methodology for Citizenship in a Multicultural Europe' held in Portugal in 1989, the Council of Europe became active through its Modern Languages Project 'Language Learning for European Citizenship' which involved a number of expert forums to be held between 1990-1996. These focused on 'bilingual education' (Council of Europe Workshops 12A, 12B, 1991/1993). Following a decision by the European Council (European Council

1989) the LINGUA programme was established which was to actively seek implementation of improved language learning.

Following the Maastricht Treaty of 1992 and the subsequent launch of the European Union in 1993, supra-national initiatives became more pronounced not only on encouraging Member States to broaden language learning provision, but also on the means by which to implement policy guidance.

The 1992 Maastricht Treaty, formally the Treaty on European Union, marks the first formal EU reference to education, training and languages. Article 126 states that the Community should contribute to the development of quality education ' by encouraging cooperation between Member States and, if necessary by supporting and supplementing their action, while fully respecting the responsibility of Member States for the content of teaching and the organisation of education systems and their cultural and linguistic diversity' (Maastricht Treaty, 1992: Article 126). It specifically argues that Community action should be aimed at developing the European dimension in education, particularly through the teaching and dissemination of the languages of the Member States. This marked the introduction of two new concepts into the then current focus on the significance of the teaching and learning of languages, namely, quality and the European dimension.

The Leonardo da Vinci programme was established by a decision of the European Council and the European Parliament in 1994 (European Parliament, 1994), which established an action programme for the implementation of a European Community vocational training policy which specifically included focus on language teaching and learning.

1995 marked a key year in supra-national initiatives on language teaching and learning. A Council of Education Ministers Resolution of 1995 states the need for citizens to ‘acquire and keep up their ability to communicate in at least two community languages in addition to their mother tongue’. It refers to the promotion of innovative methods, and, in particular, to the teaching of classes in a foreign language for disciplines other than languages, providing ‘bilingual teaching’. In so doing it follows an earlier draft resolution (Presidency to Education Committee 6 January 1995) mentioning, in the context of promoting innovative methods in schools and universities, *the teaching of subjects other than languages in foreign languages*. This also explicitly refers to *Content and Language Integrated Learning (CLIL)*, and links to the Maastricht Treaty of 1992 which includes comment on the significance of enhancing linguistic diversity and languages education.

The 1995 White Paper (Teaching and Learning – Towards the Learning Society) notes the significance of greater flexibility in ‘the development and purposes of education and the consequent transformation of methods and tools’ (European Commission 1995: 43) and observes that it ‘is desirable for foreign language learning to start at pre-school level. It seems essential for such teaching to be placed on a systematic footing in primary education, with the learning of a second community foreign language starting in secondary school. It could even be argued that secondary school pupils should study certain subjects in the first foreign language learned, as is the case in the European schools’ (European Commission 1995: 67). The White Paper also set a target of language provision leading to proficiency in three Community languages by the end of formal education. A decision by the European Parliament and Education Council (European Parliament 1995a) established the SOCRATES programme which was focused on forms of

mobility, exchange and linguistic development. In the same year another decision by the European Parliament and Education Council (European Parliament 1995b) established 1996 as the Year of Lifelong Learning and declared the importance of lifelong learning with respect to developing linguistic and other competences.

A 1995 Education Council Resolution (Education Council 1995) stressed the importance of knowledge of languages within the European Union within the Member State educational systems. The major emphasis was on actively developing communication skills. This Resolution also highlighted the need for improvement and greater quality in language teaching and learning through encouraging contact with first language speakers of the target language through mobility, virtual mobility, use of new technologies, teacher exchange, and deployment of language assistants.

In relation to methodologies, it cites the need for promotion of innovative methods in schools and universities such as Content and Language Integrated Learning (CLIL); the teaching of languages to young children; promotion of the learning of languages in technical and vocational education; and the promotion of language learning in adult education; improving the quality of teacher education; the training of non-language teachers in methodologies including CLIL; development of alternative assessment systems, and the development of methodologies based on common indicators. In relation to linguistic diversification, this Resolution declared that students should have the opportunity to study two Community languages for a minimum of two consecutive years during compulsory schooling, and if possible for a longer period; that language teaching provision should be available in less widely used languages, and practices enhanced through multilateral partnerships and use of external resources. A follow-up Education

Council Conclusion (Education Council 1995b) further stressed the significance of linguistic diversity and multilingualism within the European Community.

A European Commission 1996 Green Paper (European Commission 1996) 'Education, Training, Research: Obstacles to Transnational Mobility' concluded that learning at least two Community languages is a pre-condition if citizens were to benefit from occupational and personal opportunities open to them in the European single market. This was followed by an Education Council Decision (Education Council 1996) which adopted a multiannual programme to promote the linguistic diversity of the Community within the tenets of the information society.

A 1997 Council of Education Ministers Resolution (Education Council 1997) on early learning and diversification of supply of languages encouraged Member States to introduce early language learning, diversity types of languages provision, and raise awareness about benefits.

In 2000, the European Council (European Council 2000) Lisbon March 2000 declared that a European Framework be established which defines the new basic skills required for citizens in the Community. These were identified as skills in the use of technologies, foreign languages, technological culture, entrepreneurship and social skills; with a major focus on decentralised certification procedures by which to promote digital literacy throughout the Union.

The European Parliament and Education Council (European Parliament 2000) launched the second phase of the Community action programme in the field of education. This was followed by a European Parliament and Educational Council decision to establish the CULTURE 2000 programme which also included reference to language teaching and learning. These contributed to another Decision by the European Parliament and Education Council to launch 2001 as the European Year

of Languages. A Resolution ((Education Council 2000) by the Education Council and Representatives of Governments of Member States stated that in relation to mobility, that the competences to work in multilingual environments are considered essential for the competitiveness of the Community.

The European Year of Languages (2001) is highly significant in drawing together earlier policy initiatives with respect to establishing guidelines and means for improving language teaching and learning throughout the Community, and the emergence of Content and Language Integrated Learning (CLIL). These included raising awareness of the richness of linguistic and cultural diversity within the European Union and the value in terms of civilisation and culture, and acknowledging the principle that all languages should be recognised to have equal cultural value and dignity. This is followed by a set of parallel focuses, namely encouraging recognition of the value of multilingualism; disseminating information on the advantages of competence in languages throughout the Union societies; encouraging the lifelong learning of languages; starting languages provision at preschool and primary school age; developing related skills involving the use of languages for specific purposes, particularly in professional contexts; and to collect and disseminate information on skills, methods, tools including those developed within other Community measures and initiatives, which assist quality teaching and learning languages provision.

The 2001 Charter of Fundamental Rights of the European Union (European Parliament 2001) declares within Article 22 that the Community will support cultural, religious and linguistic diversity, and give respect to cultural, religious and linguistic diversity. The Committee of Regions (European Commission 2001) issued a declaration specifically on regional and minority languages. It stated that the European Charter For Regional or Minority Languages contributes towards the



maintenance and development of European cultural traditions and wealth which emphasises the value of interculturality and multilingualism; that the Union should develop innovative approaches, by fostering the exchange of specialist experience and knowledge; and creating networks between people active in this field and applying best practices; calling upon the European Commission to make provision for implementing policies on the fields of information technology, audio-visual policy, education, culture, language learning, language technology and cross-border cooperation, amongst others. It further recommended that the Commission establish a multi-annual programme on the promotion and safeguarding of the minority (lesser used) and regional languages of the European Union through actions to ensure that minority (lesser used) and regional languages are included in the activities of all current European Union programmes; support research which collects reliable and periodically up-dated information on Europe's sociolinguistic development, identifying the factors that have contributed towards the growth or decline of languages, including the activity of public administration in this field.

A resolution by the European Parliament (European Parliament 2001) called on the European Commission to promote linguistic diversity and language learning and establish a multi-annual programme on languages by 2004. The European Council (European Council 2002) argued that as a competitive economy is based on knowledge, that education and training systems should become a world quality reference by 2010, and that this would require mastery of basic skills including digital literacy, and that this would be achieved by the teaching of at least two Community languages from a very early age and the establishment of a linguistic competence indicator by 2003. A 2002 Education Council Resolution (Education Council 2002) stated that Member States should develop innovative pedagogical

methods by which to improve language teaching and set up systems of validation of competence based on the European Framework of Reference for Languages developed by the Council of Europe.

The Mercator-Education 2002 report on Trilingual Education in Europe (Mercator-Education 2002) describes innovative forms of trilingual education in various countries and cites Content and Language Integrated Learning (CLIL) as one such innovative method, and also in relation to how such an approach can successfully develop improvement of language skills where three languages are used as the medium of instruction (Mercator-Education 2002:86).

The 2003 'Education & Training 2010' Communication by the European Commission (European Commission 2008) argues that the success of the Lisbon Strategy requires reforms including those concerning language teaching provision. 'By 2010, all education systems should ensure that their pupils have by the end of their secondary education the knowledge and competences they need to prepare them for their role as a future citizen in Europe. This entails amongst other things stepping up language teaching at all levels and strengthening the European dimension in the training of teachers and in the primary and secondary curriculum' (European Commission 2003: 15).

Through a Communication from the European Commission to the European Parliament, the Economic and Social Committee, and the Committee of the Regions in 2003, an action plan was adopted 'Promoting Language Learning and Linguistic Diversity: An Action Plan 2004-2006' which set out 45 proposals in four areas; lifelong language learning, quality language teaching, building language-friendly environments, and establishing a framework for achieving greater progress. The Action Plan specifically features reference to Content and Language Integrated

Learning (CLIL) as an action to be promoted within the 2004. 'The Socrates programme's Lingua action 2 will fund a series of transnational projects for the development and dissemination of new, specific methodologies for teaching subjects through languages other than lingua francas. The Commission will propose that the general Socrates Call for Proposals in 2004 be amended accordingly' (European Commission 2003: 16). It also states that the European Eurydice Unit will gather and disseminate information on the availability of Content and Language Integrated Learning (CLIL) in European education and training systems, based on the collection of available data by its Network.

For 2005 it states that 'The Commission will propose that the general Socrates Call for Proposals published in 2004 (Socrates Comenius action 1: school projects) be amended so as to increase support to schools wishing to introduce a Content and Language Integrated Learning approach. In particular, extended exchanges of teachers between partner schools will be encouraged. For 2005-2006 it states that 'A European conference will be held for decision-takers and inspectors to launch a major new study on the benefits of Content and Language Integrated Learning', and efforts to be made for the teaching of non-language subject teachers in CLIL.

This was further supported by the Common Position of the Education Council in 2004 which transparency of qualifications be supported throughout the Community, and the EUROPASS introduced as one means by which to support recognition of language and intercultural competences.

A CEDEFOP synthesis report (European Commission 2004) 'Vocational Education & Training: key for the future: Mobilising for 2010' argues that for mobility to be an option for a wider range of VET students 'courses should be offered in a language

other than the native language through curricula with an international dimension’ (European Commission 2004: 27)

The 2004 European Profile for Language Teacher Education: A Frame of Reference (Kelly et al. 2004) produced for the European Commission comments on the gap between theory and practice in some language education. It notes that CLIL approaches are recognised as a growing area in language teacher education across Europe and that many institutions already use them or are planning to introduce them’ (Kelly et al. 2004:77). In offering an explanation why this is the case the report argues that ‘In foreign language teacher education, *theory* also has a number of more specific meanings. It relates to areas such as language acquisition, linguistics and reflective practice. Techniques such as action research and CLIL teaching are bridging activities between theories and classroom-based practice’ (Kelly et al. 2004:22).

The European Profile also notes that specialized teacher education programmes exist where Trainee teachers learn the methodologies and strategies for teaching another subject through the medium of a foreign language; and that even if trainee teachers do not intend to specialise in this area, such training improves their language competence, encourages more comprehensive use of the target language in non-CLIL classes, and gives teachers ways of raising social, cultural and value issues in their foreign language teaching; and finally that CLIL approaches encourage cooperation with colleagues from different disciplines’ (Kelly et al. 2004:77).

An evaluation of activities supported by the European Commission between 1998-2002 conducted by the Interarts Foundation, with a contribution by the UNESCO Centre of Catalonia (Interarts 2004), reported to the European Commission that

CLIL played a role in supporting the promotion of regional and minority languages. This was specifically with respect to the Commission's willingness to increase support to schools wishing to introduce a CLIL approach within the Comenius 1 action (School partnerships) of Socrates, with extended exchanges of teachers between partner schools being particularly encouraged – this could be relevant to schools in different member states which share a language ' (Interarts 2004: 134). Reference was also made to the relevance of examining widely used and regional and minority languages with respect to CLIL practice through, 'information gathered and disseminated by the European Eurydice Unit on the availability of Content and Language Integrated Learning (CLIL95) in the European education and training systems' (Interarts 2004: 133).

In 2005, the European Commission issued a Communication 'A New Framework Strategy for Multilingualism' (European Commission 2005) to complement the 'Action Plan for Promoting Language Learning and Linguistic Diversity'. One strand for attention concerned finding ways to enhance language learning and multilingualism within the Community. In respect to Content and Language Learning (CLIL) the Communication states that CLIL is being increasingly used across Europe and that it provides greater opportunities within the school curriculum for exposure to foreign languages. It invites Member states to implement the Conclusions of the Luxembourg Presidency concerning Content and Language Integrated Learning, including raising awareness of the benefits of this approach, exchanging information and scientific evidence on good CLIL practice and specific CLIL training for teachers'. (European Commission 2005:9)

The Committee of Ministers of the Council of Europe made a formal recommendation in 2005 on expanding how languages are taught and used in education (Council of Europe 2005). Noting that trans-frontier cooperation is

hindered by linguistic and cultural differences it recommended that governments of member states ‘when developing their language-education policies, apply the principles of plurilingual education, in particular by establishing conditions that enable teaching institutions in border regions at all levels to safeguard or, if need be, introduce the teaching and use of the languages of their neighbouring countries, together with the teaching of these countries’ cultures, which are closely bound up with language teaching’ Council of Europe 2005:2).

In the same year the Council of the European Union issued an outcomes statement resulting from the Luxembourg Presidency conference, *The Changing European Classroom – The Potential of Plurilingual Education* (10-11 March 2005). The statement declares that “Content and Language Integrated Learning (CLIL) in which pupils learn a subject through the medium of a foreign language, is emerging across Europe in response to increasing demands for pupils with better language skills. The European Commission’s Action Plan for the promotion of Language Learning and Linguistic Diversity 2004 - 2006 (COM (2003) 449 final) underlines the major contribution that CLIL can make to the Union’s language learning goals. ‘CLIL provides greater opportunities within a given school curriculum for foreign language exposure. In its dual-focussed approach CLIL accommodates both subject-specific content and language, offering a more natural context for language development and brings an immediacy, relevance and added-value to the process of language learning.

CLIL can be one of the means of giving all learners, regardless of their educational, social or economic background, the opportunity to strengthen their knowledge of foreign languages, thus maintaining cultural and linguistic diversity and promoting individual plurilingualism’.

The statement then lists certain key Conclusions:

1. There is a need for greater public awareness of the benefits of the CLIL approach and the contribution it could make to enhance individual and societal prosperity and social cohesion.
2. The promotion of CLIL could lead to increasing student and workforce mobility, thus reinforcing European citizenship.
3. Promotional bodies at national and EU level would be helpful to contribute towards the introduction, development, co-ordination and expansion of CLIL throughout the European Union.
4. Specific CLIL training for teachers and educational administrators should be encouraged, including a period of work or study in a country where the target language is generally spoken.
5. Ways of acknowledging CLIL participation of learners at different educational levels are to be investigated.
6. A wide range of languages should be promoted as a medium for CLIL initiatives.
7. The exchange of information and scientific evidence on good CLIL practice should be encouraged at European level.

(Council of the European Union, 2005)

The 2006 Recommendation of the European Parliament and the Council on key competences for lifelong learning was a particularly significant step in relation to Content and Language Integrated Learning (CLIL). This recommendation established a significant recognition of outcomes-oriented education which is competence-based. It acknowledges that changes in socio-demography, developments in scientific and technological innovation, and new knowledge and competence demands required adjustment in educational provision. Eight key competences were introduced: communication in the mother tongue; communication in foreign languages; mathematical competences and basic competences in science and technology; digital competence; learning how to learn; social and civic competences; initiative and entrepreneurship, and finally, cultural

awareness and expression. These mirror a range of the objectives in CLIL programming as reported in the 2001 Profiling European CLIL Classrooms (Marsh, Maljers & Hartiala 2001). Established to guide educators and others, these competences are inter-dependent to a large extent, and reflect the integrated and convergent features of CLIL competence-building objectives.

A 2006 study 'The Main Pedagogical Principles underlying the Teaching of Languages to Very Young Learners (European Commission 2006) notes that 'CLIL (content and language integrated learning) initiatives change the factor of time for learning by making the other language the medium of instruction in modules or subjects of the primary curriculum in general... and that even if 'the term CLIL is not mentioned in a curriculum, combining the foreign language teaching with other lessons activities, where appropriate, e.g. short counting exercises, sports, arts and crafts and music has been suggested in Early Language Learning (ELL) for many years' (European Commission 2006:93). It further notes that 'intensity can also be increased by including aspects of CLIL teaching into an in-service programme. This approach calls for a different teacher profile: a content-oriented language competence and specific methodology' (European Commission 2006:96).

The Eurydice European unit published Content and Language Integrated Learning (CLIL) at School in Europe in 2004 (Eurydice 2004). This report, the first of its type in Europe, details how CLIL provision is organized, target languages used, types of teachers involved, subjects taught and a range of other operational factors through a set of country reports which are then used to produce a European overview report. It notes that 'schools in which the teaching of certain subjects in the curriculum may be offered in a foreign, regional or minority language have existed in Europe for years..... The acronym CLIL (Content and Language Integrated



Learning) started to become the most widely used term for this kind of provision during the 1990s' (Eurydice 2004: 7).

In 2007 the European Commission also launched a consultation process on multilingualism. The resulting report cited Content and Language Learning (CLIL) as one innovative means by which to improve language competences (European Commission 2007). 44.36% of respondents considered CLIL to be of value in encouraging language learning. The report states that ' Respondents commenting on their choices mainly reflected on possible ways for encouraging language learning. Suggestions included full immersion into the language by putting the learner into contact with authentic materials and native speakers, the use of CLIL, as well as mobility/ exchange programmes. There was also a general preference expressed for teaching communicative skills, rather than learning grammar and vocabulary, deemed as theoretical knowledge of little practical use. (European Commission 2007: 9).

A 2007 European Commission Working Document (European Commission 2007) reporting on the implementation of the Action Plan ' Promoting Language Learning and Linguistic Diversity' refers to Content and Language Integrated Learning ( CLIL) being 'increasingly being used in European classrooms as it is regarded as an effective way of strengthening communication skills and motivating students.

Further development of CLIL teaching materials was supported through Lingua projects (I.2.4), whilst Comenius school projects working on CLIL approaches received priority (I.2.5). The Life Long Learning programme then continued to give priority to school partnerships that promote early language learning, multilingual comprehension and CLIL. A European Symposium on "The Changing European Classroom — the Potential of Plurilingual Education" (I.2.6) was held in

Luxembourg in March 2005, in cooperation with the Luxembourg presidency, which reported on its conclusions to the Education Council of May 2005. The Symposium recalled the need to ensure that pupils and students receive CLIL provision at different levels of school education. It was also emphasised that teachers should receive special training in CLIL.

In 2006, the Eurydice network published a survey on “Content and Language Integrated Learning (CLIL) in schools in Europe” (I.2.7), setting out the main features of CLIL teaching in European countries. ‘While interest in CLIL provision is growing, only a minority of pupils and students are currently involved, with the situation varying greatly from country to country. The survey showed that if CLIL provision is to be generalised, it has to be supported in most countries by a significant effort in teacher training. Another area demanding further work is evaluation: because CLIL is still in its early stages in most countries, evaluation of CLIL practices is not widespread’ (European Commission 2007: 11-12).

In 2008, The Council of the European Union made a Resolution (Council of the European Union 2008) on a European Strategy for multilingualism. This reiterates that knowledge of languages is a basic skill for citizens and that further action is required to improve the mastery of basic skills, in particular by teaching two foreign languages to all from a very early age. Referring also to the development of European Indicator of Language Competence this Resolution cites the significance of the cultural dimension of multilingualism and in particular its role in access to culture and its contribution to creativity, and the role of language learning in developing intercultural competences.

Referring to multilingualism as a major cross-cutting theme encompassing the social, cultural, economic and therefore educational spheres, it stresses that

multilingualism contributes to developing creativity by allowing access to other ways of thinking, interpreting the world and expressing the imagination. The Resolution invites Member States to make efforts to promote the acquisition and regular updating of language skills for all, in formal, non-formal and informal contexts; and to encourage the learning and dissemination of European languages, by making use of innovative tools such as digital communication technology and distance learning and approaches such as those based on the intercomprehension of related languages; and give particular attention to the further training of language teachers and to enhancing the language competences of teachers in general, in order to promote the teaching of non-linguistic subjects in foreign languages (CLIL — Content and Language Integrated Learning).

A Communication by the European Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions (European Commission 2008) 'Multilingualism: an asset for Europe and a shared commitment' addresses issues relating to language use and language educational provision. It invites Member States to explore what to do to encourage European citizens to speak two languages in addition to their mother tongue through effective language teaching. It notes that the trend 2003-2008 has been to advance the introduction of language learning in primary education, and that content and language integrated learning (CLIL) has gained ground especially in secondary education. In respect to CLIL, and other contexts, it also notes that in many situations languages are taught by non-language specialists and that they should receive training in appropriate methods.

The Business Forum for Multilingualism reported through Recommendations from the Business Forum for Multilingualism (European Commission 2008) that

national governments should 'encourage language learning at all levels and widen the range of languages taught; introduce more practice oriented language learning modules from secondary school and all through tertiary school including vocational training; and provide appropriate recognition for language skills in school' (European Commission 2008:6).

Following the Luxembourg EU Presidency symposium *The Potential of Plurilingual Education* (March 2005), which called for involving key stakeholders in education, and measures to support the broadening of CLIL practice, the CLIL Fusion 2008 Communiqué (CCN 2008) reported on consultations on the development of CLIL 2009-2012. Commenting that 'Content and Language Integrated Learning (CLIL) is an example of an innovative educational model which enables efficient fusion in the curriculum', the Communiqué states that CLIL, often implemented with reference to widely used languages, is also highly relevant for minority, regional and heritage languages, and benefits cross-sector and cross-cultural dialogue; that evidence from the neurosciences continues to strengthen parallel research findings from within education on the outcomes of CLIL practice; that CLIL is a sound and innovative pedagogy that holds the potential of making a significant contribution to meeting the goals of the Lisbon Strategy; and that the effective expansion and implementation of CLIL requires a multiyear, long-term change process that requires appropriate planning and investment, at national and pan-European levels (CCN 2008).

Proposals from the Group of Intellectuals for Intercultural Dialogue set up at the initiative of the European Commission were reported in 2008 in 'How the Multiplicity of Languages could Strengthen Europe'. In response to how different languages could be introduced across different regions, for differing purposes, it

notes that 'It is not therefore unrealistic to imagine courses online given by a single teacher to pupils located in different places, offering the possibility for pupils to ask that teacher questions directly on their screens. In technical terms, it is something that is perfectly feasible today and it could even multiply contacts between the speakers of any given *personal adoptive language* much better than could be achieved through a traditional language course' (European Commission 2008: 8).

During 2006-2009 The Council of Europe Languages in Education working group produced a set of tools and recommendations on language as a school subject; language as a medium of teaching and learning across the curriculum; and the potential for convergences between the language(s) of school education and modern ('foreign') languages in a global or holistic approach to language education policy aimed at promoting coherence in the development of the learner's plurilingual repertoire. This is clearly within the domain of CLIL, and is an indication of a continuation of interest first seen in the early 1990s through the Council for Cultural Cooperation activities through the Languages for European Citizenship Workshops (Council of Europe 2009).

The 2009 Council of the European Union (Education Council 2009) launched a strategic framework for European cooperation in education and training (ET 2020) emphasizing that because education plays such a key role in developing competences for meeting the socio-economic, demographic, environmental and technological challenges facing Europe, that creativity and innovation should be enhanced at all levels of education and training.

Strategic objective 2 of the framework concerns improving the quality and efficiency of education and training includes the need to improve key competences

including the strengthening of linguistic competences. It also refers to a need for ensuring high quality teaching, to provide adequate initial teacher education, and continuous professional development for teachers and trainers. Strategic objective 3 concerns promoting equity, social cohesion and active citizenship includes reference to inclusion of disadvantaged students, and those with special needs to have access to quality competence-building education. In respect to these strategies language learning is given special prominence especially with respect to developing provision for enhancing language competences with a benchmarking framework operational by 2012.

The Talking the Future 2010 – 2020 CCN Foresight Think Tank on Languages in Education which was launched in Finland (2010) set out to identify needs, and generate ideas for re-shaping languages in education over the next decade. The following factors driving innovation were considered: Neurological, cognitive, motivational and social basis of learning; dynamics of lifelong learning and the potential of E-Learning 2.0/3.0; value-creating networks and clusters of innovation; education systems and informal learning; human technologies that support learning; technology-based working and operating environments; and, the roles of private and public sector educational and resources providers.

The report notes: ‘Convergence and integration will be hallmark characteristics of education and life over the next decade. Convergence usually involves breaking the ‘status quo’ and introducing change. This has been referred to as the *Cirque du Soleil* phenomenon where you see long-standing expertise and traditions being combined in different ways leading to the creation of new and highly innovative outcomes’.

It continues ‘The information age is one of social, technological and educational convergence. This invites education systems to thoroughly implement long-

standing educational philosophies whereby teachers work in teams, and parts of the curriculum are integrated. There is evidence that languages should be taught in an integrated way, and not only as a separate subject. Language learning partly requires authentic content learning that fosters critical thinking and leads to the generation of meaningful communication, as opposed to *learning language just for the sake of language*. Content and Language Integrated Learning (CLIL) provides an opportunity for convergence, and the improved learning of content and language' (Asikainen et al. 2010: 10).

In 2011 the Civil Society Platform on Multilingualism published Policy Recommendations for the Promotion of Multilingualism in the European Union (Civil Society Platform on Multilingualism, 2011). In discussion of initiatives in language education it states that 'Three other interesting initiatives include Content Language Integrated Learning (CLIL), the inter-comprehension approach and the propaedeutic approach. In contrast to the latter two approaches, CLIL, though effective, has been critiqued for being somewhat elitist and tending to promote English rather than multilingualism. Inter-comprehension can allow a greater use of the mother tongue through the acquisition of receptive competence in one language group, e.g. French/Spanish/Italian/Portuguese/Romanian. The propaedeutic approach is based on the language-learning skills transfer effect, i.e. the initial learning of a limited amount of an easier, more regular language, without exceptions, to give far more children a taste of success in language learning, thus raising language awareness and preparing for subsequent language learning' (Civil Society Platform on Multilingualism, 2011:55).

Recommendations in this report focus on 'more support for less widely used languages; and raising awareness of the benefits of early language learning, lifelong language learning, and informal and non-formal language learning. Early language

learning *can* work, providing that the programme is designed in a way that is meaningful for children of different ages. It is increasingly recognised that language learning continues throughout life. There is research evidence that language is learnt best by many if it is *acquired* in informal or non-formal settings instead of being taught and studied'. Thus it directly touches on one of the key tenets of Content and Language Integrated Learning (CLIL).

It also observes that 'In addition that in order to promote successful programmes of bilingual and/or multilingual education and use them to build language education pedagogies for the development of plurilingual competences continuing research has a crucial part to play'. (Civil Society Platform on Multilingualism, 2011:56).

In support of bilingual objectives it also notes that production of bi-lingual and multilingual textbooks for the teaching of non-language subjects is recommended. 'In order to move European citizen from a monolingual to a plurilingual mind-set, it is necessary for language teaching and learning to leave the language classroom and to enter other domains. To achieve this goal, we recommend the production of bi- and multi-lingual school textbooks for other subjects, for example history. In this way, students can use their newly-acquired language skills in other areas' (Civil Society Platform on Multilingualism, 2011:57).

The Thematic Working Group 'Languages for Jobs: Providing Multilingual Communication skills for the Labour Market' European Strategic Framework for Education & Training ET 2020 reports that the CLIL method has been seen as a promising approach worth applying in vocational training context, although specialised training and very good team work between different categories of teachers are necessary for its success' (European Commission 2011:6). It further



comments on how CLIL is spreading from other educational sectors such as primary and private sector education. 'CLIL is seen as providing a framework for achieving best practice without imposing undue strain on either curricular time or resources. One of the success factors has been that the approach is seen to open doors on languages for a broader range of learners. It therefore has particular significance in terms of vocational education. (European Commission 2011:23).

A 2011 European Commission Working Paper commenting on 'Language Learning at Pre-primary level: Making it efficient and sustainable: A Policy Handbook' (European Commission 2011b) notes that Content and Language Integrated Learning (CLIL) has a role to play in pre-primary education where the approach is adapted to the age group and the curricula.

A 2011 European Commission Working Paper commenting on 'Multilingualism: An asset for Europe and a shared Commitment' (European Commission 2011) notes that in consideration of an inventory of Community actions in the field of multilingualism language learning should be offered more widely in vocational and adult education. 'At the same time a broader range of languages should be available to accommodate individual interests. Greater use of the media and new technologies would help here and would in addition offer additional learning opportunities outside formal education. Considerable importance is attached to implementing an overall strategy for schools and teacher education, in particular by removing barriers to teacher mobility and exchanges, to enhance both their language fluency and their careers. Emphasis is also placed on early learning, content and language integrated learning (CLIL), and equipping teachers of the national language to teach effectively in classes characterised by increasing numbers of students of different mother tongues' (European Commission 2011:7).

Referring back to the 2006 Eurydice report on Content and Language Integrated Learning and the 2008 report 'Key data on teaching languages at school in Europe' published by the European Commission, it reports that in 2012 Eurydice and Eurostat data will be combined and new information will be added, in particular on CLIL (Content and Language Integrated Learning)' (European Commission 2011:10).

Stating that CLIL is a cross-cutting priority for all projects within the Leonardo da Vinci programme European Commission 2011:13), it also reports that The European Language Inspectors Network set up in 2005 following the Commission Action Plan on Promoting Language Learning and Linguistic Diversity 2004-2006 considers that Content and Language Integrated Learning (CLIL) is an aspect of language teaching that merits development and wider application and is amongst one of the core elements in the profile of a European Language Teacher. (European Commission 2011:40).

### **1.2 The Emergent European Dimension through Actions, Projects and Initiatives 1989 - 2001**

The 1989 European Council decision to launch the LINGUA unit within the European Commission (European Council 1989) was of fundamental significance in supporting policy and implementation support for innovation in language teaching and learning. At this time the Council of Europe was hosting 18 expert workshops (1990-1996) to examine teaching, learning and assessment in foreign languages under a project entitled 'Modern Languages Project: Language Learning for European Citizenship' (Council of Europe 1996). Some of these Workshops

focused on 'bilingual education' and 'teaching non-language subjects through a foreign language' (Council of Europe Workshops 12a / 12b – 1993/1996).

The LINGUA unit was in a position to co-fund European projects, and interest was shown in the potential of bilingual education. In an increasingly convergent European socio-political context, the issue of being able to mainstream previously successful examples of bilingual education was examined with respect to school and teacher development. LINGUA was not mandated to provide research funding, but it could co-fund initiatives which were both cross-border and focused on various forms of professional development and capacity-building. The Council of Europe was also operating with limited funds which prevented the type of research implemented in Canada for example when 'immersion' was being widely examined, developed, and implemented during the 1980s-1990s (Genesee, 1987). Whereas the Council of Europe Workshops were examining the current situation where bilingual education was being operated in often very distinct environments such as in bilingual border regions, the LINGUA unit was exploring if and how such an approach could be used in mainstream schools.

European Commission support was provided to a number of initiatives which supported a 1978 initiative (European Commission 1978) to encourage teaching in schools through the medium of more than one language. At the beginning these initiatives were based on inter-disciplinary professional networks, where experts were brought together to consider various dimensions of bilingual education.

In 1992, the proposition was made that the term bilingual education would not be optimal to describe schools where partial teaching through a foreign language would be developed. The European schools, and other exemplary examples as found in bilingual environments and border regions (see, for instance Baetens

Beardsmore 1993) could achieve high levels of bilingualism, and thus the term was appropriate. But in the case of starting to mainstream the experience of learning non-language subjects through a foreign language, bilingual education was not considered appropriate. From 1992 to 1993 there was active discussion between experts, often facilitated by actions through the European Platform for Dutch Education and the University of Jyväskylä (Finland), to seek a term which would be widely accepted.

In 1993 the term Content and Language Integrated Classrooms (CLIC) was proposed and circulated amongst LINGUA staff and others across Europe. CLIC denoted the context, not a methodological approach. Interest in the parameters of an educational approach that would suit contexts where students were learning non-language subjects through a foreign language, led to a need for term adjustment or replacement. In 1994, representatives of the European Platform for Dutch Education (Anne Maljers) and the University of Jyväskylä (David Marsh), in conjunction with other key stakeholders, then opted for adopting the term Content and Language Integrated Learning (CLIL). This term was tested at an international forum in Finland (The 1996 Forum for Mainstream Bilingual Education, Helsinki 20-22 September), launched through the EUROCLIC network internet site, formally agreed by the coordinators of EUROCLIC at the 1996 European Conference on Immersion Programmes, Barcelona, Spain. 26-28 September and introduced to the European Commission (DGXXII) by David Marsh at the White Paper Thematic Conference, 'Proficiency in three community languages', Brussels, 10-11 October 1996.

In 1996, LINGUA supported the European Networks in Bilingual Education conference (Fruhauf et al. 1996). At this event it was agreed that organisations in the Netherlands (European Platform for Dutch Education) and Finland (University

of Jyväskylä) would coordinate a European Commission co-funded network. This was launched in 1996 as EuroCLIC (European Content and Language Integrated Classrooms).

Working closely with LINGUA the European Platform for Dutch Education and University of Jyväskylä then launched a range of initiatives to provide mainly pioneering teachers and schools with network opportunities and resources by which to explore means to integrate the learning of foreign languages across the primary, secondary and vocational curricula. Both countries were experiencing considerable interest in the teaching of non-language subjects through a foreign language which enabled case studies to be established which were then available to practitioners and others in other European countries (see, for example, Marsh 1996; Marsh & Masih 1996; Pohjanvirta et al. 1998; Nikula & Marsh, 1997; Takala, Marsh & Nikula 1998; Marsh, Takala & Nikula 1997; Marsh 1997; Marsh & Masih 1996).

Following publication of the European Commission's White Paper: Teaching and Learning: Towards a Learning Society which stated that 'school pupils should study certain subjects in the first foreign language learned, as in the European schools' (European Commission 1996:67), growing interest across Europe, facilitated by the actions of the European Platform for Dutch Education and University of Jyväskylä, and continuously supported by expertise within the LINGUA unit led to a set of actions and outcomes.

Meanwhile the Council of Europe created the European Centre for Modern Languages (ECML) in 1994 as an Enlarged Partial Agreement of the Council of Europe. The ECML was to establish a documentation centre providing specialists and multipliers with a wide range of teaching aids and results of research. Some of

these were focused on bilingual education. In 1997 it held the first Workshop on CLIL 'CLIL in Vocational and Professional Education' (Marsh, Bogner, Coyle & Takala 1998).

In 1997 a think tank (CEILINK) was convened with the support of the European Commission to take stock of the situation, seek inter-disciplinary cooperation, and establish future oriented action plans. This led to publication of 'CLIL Initiatives for the Millennium' (Marsh & Marsland 1998). Efforts to disseminate information were supported by the European Commission co-supporting development of a broadcast quality video, InterTalk, and a host of actions were subsequent by which to raise public awareness. This was followed by a range of publications designed for parents and young people (see, for example Marsh & Langé 2000). In 2001 a European survey was published, Profiling European CLIL Classrooms (Marsh, Maljers, Hartiala 2001), which reported on reasons why schools wished to introduce CLIL. Five dimensions were found, culture; environment; language; content, and learning.

From the late 1990-2001 an increasing range of materials were published to support CLIL. Some of these resulted from the ongoing coordination of activities by the European Platform for Dutch Education and the University of Jyväskylä (see, for example, Marsh & Marsland 1999; Marsh & Langé 1999; Marsh, Ennser & Sygmund 1999; Marsh & Langé 2000a; Marsh & Langé 2000b; Marsh, Marsland & Stenburg 2001; In 1998, a resource base was established covering research and materials in different European languages (Marsh & Marsland, 1998). At the same time many others publications and resources were being independently produced across Europe by different experts and entities.

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**Chapter 2**    **Special Educational Needs in Europe: The Teaching & Learning of Languages.** 2006. European Commission: Public Services Contract DG EAC 230303, Brussels: European Commission

### **2.1 Cognitive Engagement, Problem-solving and Higher-order Thinking**

Development of Content and Language Integrated Learning (CLIL) methodologies has focused on cognition for some years (see, for example, Coyle, Hood & Marsh 2011). This has been in terms of thinking and learning skills, and in accommodating diverse types of student, with often diverse levels of competence in the vehicular language.

Diversity can make teaching contexts more complex. However diversity has become a reality in many European Union schools (Eurydice 2009) and, can also be exploited to introduce advantage if an individualised learning path approach is adopted. Diversity in schools is not only related to the impact of migration. It is also linked to the inclusion into mainstream classes of young people with special or specific needs, which is commonplace across the European Union (European Agency for development in Special Needs Education 2010). It can also be linked to early childhood lifestyle differences of children with respect to use of technologies (Hargreaves 1994; Bain & Weston 2011; Howard Jones 2010, Howard Jones 2011a, 2011b).

Content and Language Integrated Learning has involved teaching and learning practices which accommodate diversity (Alton-lee, 2003). In so doing emphasis has been made on the issue of cognition, and how individuals learn. The correlation between individualized learning approaches and educational outcomes is being increasingly examined as a success factor in educational practice (Hill & Russell, 1999; OECD 2002; OECD 2006; Sahlberg 2011). 'The dominant model in many Western societies has emphasized a transmission of knowledge where the expert

(the teacher) deposits information and skills into the memory bank of the novice (the learner). This has been called a 'banking model' (Freire, 1972) and tends to be teacher-controlled and teacher-led. Alternative, social-constructivist approaches to learning emphasize 'the centrality of student experience and the importance of encouraging active student learning rather than a passive reception of knowledge' (Cummins, 2005: 108).

Social-constructivist learning in essence focuses on interactive, mediated and student-led learning. This kind of scenario requires social interaction between learners and teachers and scaffolded (that is, supported) learning by someone or something more 'expert' – that might be the teacher, other learners or resources. When learners are able to accommodate cognitive challenge – that is, to deal with new knowledge – they are likely to be engaged in interacting with 'expert' others and peers to develop their individual thinking. Vygotsky (1978) introduced the term 'zone of proximal development' (ZPD) to describe the kind of learning which is always challenging yet potentially within reach of individual learners on condition that appropriate support, scaffolding and guidance is provided. In settings shaped by social-constructivist approaches, the teacher's role involves facilitating cognitive challenge within an individual's ZPD. This involves the teacher in maintaining a balance between cognitive challenge for learners and appropriate and decreasing support as learners progress' (Coyle, Hood & Marsh 2011:28-29).

In order for teachers to respond to this trend towards individualized learning and the challenges posed by diversity, it is necessary to link back to the notion of multiple intelligences (Gardner 1999); cognitive process taxonomies (Bloom 1956; Anderson & Krathwohl 2001; Marzano 2000; Hayes et al 2005); and learning skills (van Lier 1996). This is happening in an age of rapid change where 'the dialogue

in Knowledge Age organizations is not principally concerned with narrative, exposition, argument, and persuasion (the stand-bys of traditional rhetoric) but with solving problems and developing new ideas' (Bereiter and Scardamalia, 2005:749-750).

It is argued that 'the impact of general learning theory and how individuals learn, based on work from eminent theorists such as Bruner, Vygotsky and Wood (see Bigge and Shermis, 1998, for an overview) does not always directly influence classroom practice' (Coyle, Hood & Marsh 2011:28) but when teaching through a foreign language it is often essential to maximize both quality and effectiveness of teaching. This is because of the added dimension of linguistic competences, the link between language and thought (REF), and the impact of quality teaching on student's learning outcomes (Laczko-Kerr & Berliner 2002; Wenglinsky 2002).

Interest in accommodating diversity, and developing student's thinking skills in educational contexts where a group of students may not be at the same linguistic or cognitive level, has presented a challenge for practitioners and researchers (McGuinness 1999). This is a particular area of interest for those scholars who are exploring inter-disciplinary collaboration in seeking to determine evidence-based linkage between thinking, brain and learning processes (see, for instance, Koizumi 1999; OECD 2002; Fischer et al. 2007; OECD 2007; Hinton, Miyamoto & della Chiesa 2008).

## **2.2 Learners with Special and Specific Needs**

Special Educational Needs is a term that is understood in different ways across the European Union. This is equally true of the term Specific Educational Needs. Definitions are influenced by legislative, educational, medical, and even funding

arrangements. What binds the terms together is the issue of diversity. Students with special or specific needs represent groups of learners who need specific forms of educational provision, whether learning content subjects or languages. ‘... definitions and categories of special educational needs and handicap vary across countries. Some countries define only one or two types of special needs (for example Denmark). Others categorize pupils with special needs in more than 10 categories (Poland). Most countries distinguish 6–10 types of special needs. In Liechtenstein no types of special needs are distinguished; only the type of support is defined (European Agency for Development in Special Needs Education 2003:8).

In some countries, for example, the United Kingdom, the legal definition of special educational needs states that children have special educational needs if they have a learning difficulty, which calls for special educational provision to be made for them. (Education Act 1996). Under this type of definition all children with minor temporary or serious longer-term needs would be included under the term Special educational Needs.

A distinction between special and specific educational needs has been made in some countries. Finland, for example, introduced a Basic Education Act in January 2011 which enabled all children to be considered with respect to individual specific education needs. Such differentiation of terms can enable effective forms of intervention which tends to involve individualization of learning paths. ‘Individuals have differing intellectual profiles, and educational systems strive to accommodate these when teaching subjects across the curriculum. Foreign language learning may be one of those subjects that are particularly significant in terms of diverse individual learning styles. Proponents of multiple intelligence argue that it is fundamentally misleading to think about ‘a single mind, a single intelligence, a single problem-solving capacity’. In accepting this view we can

assume that there is no single approach to foreign language learning which will suit the needs of any classroom of learners' (Marsh 2005:1).

Special Educational Needs can be considered as a feature which can be diagnosed where a young person has significantly greater difficulty in learning than other children of the same age. Specific Educational Needs can apply to a wide range of situational, psychological, medical or other reasons why special intervention is required. This may apply to a recent migrant child who does not speak the vehicular language of the school, a child who is experiencing stress because of a serious family situation, to one who is temporarily hospitalized and thus unable to learn in a school class environment.

The issue here relates to two aspects. The first is the size of school population that has some form of special or specific needs at any given time. The second concerns the mainstreaming of good educational practice. That is to say that if an educational practice is to be mainstreamed, then it will need to be applicable to the vast majority of any given cohort of learners. Exclusive schools can usually select students and attempt to build relatively homogeneous class groups. Mainstream schools need to achieve an equally high level of educational achievement but have to accept heterogeneity within class groups. This has become ever more important in recent years in many European countries because of migration.

In 2009 Eurydice reported on the integration of immigrant children into schools in Europe (Eurydice 2009). Following the European Year of Intercultural Dialogue 2008, Eurydice studied the policies and measures being undertaken to respond to the challenges posed by increasing rates of the diversity of first languages present in schools. It states that 'there are several (such) immigration profiles. In Belgium, Germany, France and Luxembourg, there have been sizeable communities of



immigrant workers for decades, while in Spain, large-scale immigration is a more recent phenomenon. Luxembourg has the highest percentages of non-native 15-year old pupils (40.1 %) and pupils with a non-indigenous language (9) as their mother tongue (23.7 %) in Europe' (Eurydice 2009:23. See, also PISA 2006 and Eurydice 2004).

The sizes of the school populations which have students who require special forms of intervention are considered to be between 20-30%. This figure is difficult to determine accurately because of the above-mentioned legislative and other differences between and across countries. In 2002 the official data ranged from Greece (0.3%) to Finland (17.8%) (Eurydice 2002). In 2010 the European Agency for Special Needs Education reported government provided statistics provided for the academic year 2007/2008 as follows: Greece (5.2%); Finland (15.1%); Austria (7.1%); Spain (4.7%) and Iceland (25.6%). These figures would be on the basis of recognized or otherwise diagnosed special educational needs. They would not account for specific needs, or any needs which for whatever reason remain undiagnosed. One of the reasons why the size of the school populations is difficult to determine accurately relates to what are considered common challenges which may be mild yet still hinder effective learning, such as dyslexia. In 2009 the NEURODYS Sixth Framework Programme on Life Sciences, Genomics and Biotechnology suggests that at least 5 – 10% of school age children have some form of dyslexia (NEURODYS 2006). Only some of these school age children will have been included in the national statistics because of the complexities of recognition, diagnosis, and support.

### **2.3 Integrated Language Learning Educational Provision**

Following the 2003 European Year of People with Disabilities, the European Commission launched an investigation into the position of the teaching of foreign languages among learners with special educational needs. The resulting report, published by the European Commission (Marsh 2005) surveyed educational provision for learners with special needs across all member states. The report reviews good practices in the provision of language teaching and relates these to wider educational issues when handling children with diverse educational needs. Some of these directly relate to provision of integrated language learning through examples of good pedagogical practice applied in contexts where students face cognitive challenges on a scale from minimal to serious.

The main objective of Special Educational Needs in Europe: The Teaching & Learning of Languages (2005) was to review language learning provision across Europe and to identify best practice on the ground, with the aim of disseminating successful models more widely. The report observes that negative assumptions towards the ability of certain young people with special needs to succeed in education are considered widespread and active in perpetuating old arguments that create barriers to access to foreign languages.

In a 2003 report, The European Agency for Development in Special Needs Education summarizes the following professional activities as effective within inclusive education for learners with special needs.

- Cooperative teaching – teachers working together with other teachers (a specialist or colleague), the head teacher and other professionals;
- Co-operative learning – learners that help each other, especially when they have unequal levels of ability, benefit from learning together;
- Collaborative problem solving – for all teachers, clear class rules and a set of borders – agreed with all the learners – alongside appropriate (dis)incentives have proved particularly effective in decreasing the amount and intensity of disturbances during lessons;

- Heterogeneous grouping – mixed ability level groups and a more differentiated approach to teaching are necessary when dealing with a diversity of learners in the classroom;
- Effective teaching and individual planning – all learners, including those with SEN, achieve more when systematic monitoring, assessment, planning and evaluation is applied to their work. The curriculum can be geared to their needs and additional support can be introduced effectively through an Individual Educational Programme (IEP) that fits with the normal curriculum. (European Agency for Development in Special Needs Education, 2003:15)

In 2010, The European Centre for Modern Languages (ECML) published the European Framework for CLIL Teacher Education (Marsh, Mehisto, Wolff, Frigols Martin, 2010). It outlines key competences required for CLIL, some of which directly correlate with those required to implement the optimal activities reported by the European Agency for Development in Special Needs Education (2003), and other publications, on special needs (see, for example, Holmes 1991; Cloud 1994; Echevarria & Graves, 1998; Robertson 2000; Sparks & Miller 2000; Crombie & McColl 2000; Miller & Gillis 2000; Donley 2002; Poór, Z. et al. 2004; Hutchins and Engels 2005; Blaz 2006; Leons, Herbert & Gobbo 2009).

The European Framework for CLIL Teacher Education introduces eight sets of competences involving application of knowledge and theory into practice. These include focus on cooperative teaching and learning which is especially significant for types of both special education needs and CLIL contexts (see, Frederickson & Cline 2009).

In special needs education contexts one of the major features of the trends towards inclusion over recent years has been prone to ‘inevitable tensions that arise during major re-structuring’ (Marsh 2005:2), and ‘tension resulting from the move towards inclusive non-segregated education for special needs learners reportedly affecting both schools and teachers ... (see, for instance, European Agency for Development in Special Needs, 2003:15-16). This tension is noted in relation to

shifting focus from special to mainstream schools, and moving more educational responsibilities from special to mainstream teachers. The transformation is said to imply huge consequences for special needs education' (Marsh, 2005:10). It is also significant in blending content and language in CLIL contexts where cooperation between educators, and cooperative methodologies used between students is a fundamental feature of professional and curricular integration. (see, for instance Coyle, Hood & Marsh, 2010:14-26).

A second aspect is collaborative problem-solving through use of productive pedagogies which provide appropriate levels of intellectual challenge for the students involved. This is particularly significant with respect to the risk of underestimating the capacities of certain special education needs students, and the inter-relationship of needs with respect to other groups such as 'gifted and talented' (Ruiley et al. 2004). In this respect, McColl, McPake & Picozzi (2002) observe that '...we need to be aware of the danger of interposing our own barriers between learners and their potential learning. Believing that a particular student cannot or should not be learning a foreign language, for whatever reason, be it diagnostic or otherwise perceived, will inhibit the search for solutions. Similarly, the student who is allowed to develop that belief is less likely to succeed' (2002:15).

Underestimating the capacity for students to successfully learn, or otherwise keeping students with special education needs isolated from other students in a classroom may be prevalent in some regions, 'the use of terms such as difficult or disorder may be counter-productive when considering equality of access to foreign language learning. An alternative approach involves not having predominant focus on learning disorders and disabilities, but rather on different kinds of learning ability' (Marsh 2005:5).

Collaborative problem-solving is common to good CLIL pedagogies which ‘ propose instructional strategies that take into account social constructivist theory, including exploratory and other forms of discourse that promote dialogic teaching and learning’ (Marsh, Mehisto, Wolff, Frigols-Martin 2010: 3). This is in accordance with the view that knowledge is built on previous learning (OECD 2007), and that enabling peer groups to synthesize ideas can provide learners with options for accessing learning (Gardner 1983).

Through collaborative problem-solving peers can help provide appropriate scaffolding (Vygotsky 1978) that may be individualized according to need within a specific group. What is significant in collaborative learning with both special needs learners and CLIL is that it gives the teacher extra support in identifying specific input needs, and the learner more options for accessing learning. For example with CLIL, ‘If dialogic learning takes place in a context where learners are encouraged to construct their own meanings from activities requiring interaction with peers and the teacher in the vehicular language, then learners will need to be able to access language relating to the learning context’ (Coyle, Hood & Marsh 2010:35).

Fundamental to good practice in both special needs provision and CLIL is the concept of autonomous learning. This encourages learners to develop the capacity to plan, monitor and edit personal progress by way of internalised experiences. The teacher changes role from being the feeder of information to the manager of learning resources and the facilitator of the learning process. Students learn to address problems with the teacher as a facilitator who guides rather than instructs. The learner takes on responsibility for the learning with the teacher encouraging and supporting rather than directing the process.

The third aspect, which concerns mixed-ability groups, is a significant feature in both special needs education and CLIL contexts. In special needs there can be high levels of heterogeneity with respect to preferred learning styles and potential for educational achievement. This is why the shift towards individualized learning paths has been so significant in developing special needs education, and through it resources such as Individual Education Plans (IEP). One basic premise is that teaching and learning should be multi-mode and multi-variant so that they enable auditory, visual, kinesthetic, social and emotional, and meta-cognitive interests and needs to be met. Mixed-ability groups also influence assessment procedures. In recent years the issue of testing students who have varied and possibly alternative abilities has been much attention. This has led to the development of assessment tools which have alternative performance descriptions suitable, for instance, with assessing students with significantly below-age expectations, and through portfolio approaches where sometimes specific types of achievement can be recognized. In reviewing a national assessment framework (QCA, 2001), Marsh comments ‘These are not only low end descriptors, but alternative ability descriptors which are particularly suitable for certain types of SEN learners.... Not only does this enable the learners and teachers to work towards tangible and achievable targets, but it also helps with the design of foreign language programming and the provision of certification’ (2005:99).

Mixed ability grouping is a core feature in CLIL contexts where it can be demanding to place a cohort of students on any given development continuum. ‘The theme of assessment is a difficult and sometimes contentious area amongst CLIL teachers. In some respects it lies at the heart of the question of how to define the level of content–language integration, because, ultimately, no matter what is taught and how it is taught, the mode of assessment determines how the learners perceive the

teacher's intention and, of course, also shapes performance data' (Coyle, Hood & Marsh 2010:112). In CLIL, the age of the students and the cognitive demands of the curriculum and resources may not easily match due to competences in the vehicular language. In addition, competences in the language may be highly heterogeneous in relation to skills but also significantly domains of use. Then there is the question of what to assess, the content or the language, and in which language to carry out the assessment and so forth. In CLIL contexts one can assume that very often the teacher faces much the same challenges as with special needs due to heterogeneity of knowledge and skills, diversity of ability, and possibly motivation.

In commenting on language assessment Zangl (2000:257) outlines basic parameters that apply to good CLIL and SEN testing. Although she writes of language competence, this can apply to CLIL contexts regardless of the students involved: (1) assess the learner's proficiency within a multi-component framework, comprising not only domain-/structure-specific items, but also the use of language within the social context of the classroom; (2) capture both the learner's individual profile and the performance level of the class as a whole; (3) trace the learner *along* his or her developmental path where time and experience act as constructive factors.

'The overall major challenge, in the development and implementation of a teacher education curriculum in CLIL, is its integrative nature (Marsh, Mehisto, Wolff, Frigols Martin 2010:3). The same applies to special education needs, and education in general, because 'it is fundamentally misleading to think about a single mind, a single intelligence, a single problem-solving capacity' (Gardner 2003).

## 2.4 Applications of SEN Provision Integrated Content and Language Learning Approaches

The learning of a foreign language exposes individuals to a range of new experiences. These invariably involve emotions. The European Framework for CLIL Teacher Education (Marsh, Mehisto, Wolff, Frigols-Martin 2010) has a range of references to the need of a teacher to both explore and manage the impact of one's own attitudes and behaviour on the learning process through forms of self-reflection, but also to continuously build safe and meaningful learning experiences for students by managing the affective side of learning through an additional language.

Language learning touches not only upon social interaction, but also personal development and creative exploration, as well as intellectual and skills development. At its best, language learning opens up new worlds to learners within which self-discovery is a positive consequence. Individuals develop skills and acquire new dimensions of social interaction that even at their simplest open up new areas of communicative potential. This focus on the affective dimension is frequently cited in SEN language learning provision. Both SEN and CLIL involve working in ways in which numerous multi-dimensional challenges need to be continuously handled, and this requires sophisticated recognition and response to major factors in successful learning, such as emotion. 'Emotional experiences are built into the architecture of the brain. In fact, emotion and cognition operate seamlessly in the brain' (Hinton & Fischer 2010:119). Citing Barrett et al. 2005; Barrett 2006; Damasio 2003, Hinton, Miyamoto & della Chiesa 2008, the authors state that 'if learning institutions are responsible for cognitive development, they are automatically involved in emotional development as well.... Therefore educators should guide the development of emotional regulation skills just as they guide the development of meta-cognitive skills' (Hinton & Fischer 2010:121).



SEN language education provision and CLIL both involve methodological adaptation to meet diverse needs, abilities and expectations. The types of methodological adaptation in SEN differ according to the types of learners involved. In both contexts, quality languages educational provision has often involved innovation, grassroots professional commitment to ensuring access to an adapted or otherwise alternative form of languages education, and at a later stage, top-down recognition and support (see, for Baetens Beardsmore 1993, Garcia 2009, and (McColl, McPake, & Picozzi, 2003).

The language teaching profession has been adapting to new emerging socio-cultural contexts and learner's diverse needs for some years see, for instance, Marsh 2002: 49-64). This has led to an increasing focus on individual learning preferences and convergence of opinion on what can be considered a quality generic approach to language teaching and learning at different levels of education, and indeed life. 'The impact of general learning theory and how individuals learn, based on work from eminent theorists such as Bruner, Vygotsky and Wood (...) does not always directly influence classroom practice. But if CLIL is to build on potential synergies, then considerations of how effective learning is realized must be brought into the equation' (Coyle, Hood & Marsh: 2010: 28).

An analysis of what is meant by effective pedagogies in different contexts, applied to both SEN languages provision and CLIL has led to a major focus on 'the centrality of student experience and the importance of encouraging active student learning rather than a passive reception of knowledge' (Cummins 2005:108). This has led to the provision of integrated learning experiences that draw on the historical development of socio-cultural, constructivist perspectives on learning and the linking of these subsequent developmental areas. It is obvious that special needs learners are somehow different to the mainstream, and thus require adapted

educational solutions. Some may require very specific language educational solutions, but the same applies to students in CLIL contexts, 'it is also true that the same logic applied to good foreign language learning for non-SEN learners applies to those with SEN' (Marsh 2005: Executive Summary).

Development of educational solutions for both Special Needs and CLIL have focused on learner autonomy (Holec 1981; Wertsch 1997; Kukla 2000); multiple intelligences (Gardner 1983); language awareness (Hawkins 1984); language learning strategies (Oxford 1990); educational neurosciences (CERI 2007; Fischer et al. 2007); thinking skills (Marzano 2000); autonomy and authenticity (van Lier 1996; van Esch, K. and St John, O. 2003); integrated working patterns and creation of communities of practice (Wenger 1998); dialogic inquiry (Wells 1999; Wong 2000), motivation (Dörnyei 2001); assessment (Genesee & Upshur, 1996); integration (Swain 1996; Genesee 1987); and educational provision and institutional organisation (Sheridan, Zinchenko, & Gardner (2005).

Applications of an integrated approach to language learning are found throughout *Special Education in Europe: The Teaching and Learning of Languages* (Marsh 2005). In a school for children with difficulties too severe for inclusion in mainstream schools, an integrated approach is used to teach French as an additional language through integrated modules and methodological adaptation (2005: 79-80).

In a school for children with severe, profound and multiple learning difficulties, French and Spanish are taught as additional languages through 'learning by doing' modules leading to 'substantial achievements can be made teaching foreign languages to the severely disabled, (which) overcomes attitudinal barriers about value, potential and purpose (Marsh 2005: 187). The Principal, David S. Stewart

comments ‘the skills required for the acquisition of language – attention, listening, responding and communicating are those that are an essential part of special needs education. Doing this in another language brings a new dimension. Indeed it could be argued that such learning engages another part of the brain. There have been pupils who have been able to do things such as counting more accurately and consistently in a second language than in their mother tongue’ (Stewart 2005). This school uses the MAKATON approach that originated from research in the 1970s leading to development of a multimodal communication framework (see, for instance Walker & Armfield 1981; Brownjohn 1988). It uses a combination of sounds, speech, symbols and signs concurrently which are used to develop language and literacy skills following CLIL practice for these children who have profound challenges in their lives.

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**Chapter 3**     **Language Awareness & CLIL.** 2007. In Cenoz, J & Hornberger, N. (eds.) *Encyclopedia of Language and Education: Knowledge about Language* (pp.233-246), 2nd edition, Vol 6. Knowledge about Language. New York & Berlin: Springer Science and Business Media

### **3.1 Developing Language Awareness**

The research and practice field of Language Awareness developed from focus on grammar and function in relation to both first and second language learning (Hawkins 1984), and was closely connected to the objectives described within the concept of 'languages across the curriculum' (Barnes et al. 1969). Much of this work related to social inequity in one country, the United Kingdom, and the need to improve levels of literacy (Davie et al. 1972), and counter divisive prejudices (Hawkins 1999). More recently it has been described as having a multidisciplinary nature and wide scope that could lead to fragmentation, 'but it is argued that the holistic view evident in Language Awareness research and practice is a strength, and that its different sub-fields have certain core notions in common which give (it) coherence (Svalberg 2007:287). A similar argument could be made for Content and Language Integrated Learning (CLIL) where the language dimension is subject to review and analysis (see, for example, Llinares, Morton & Whittaker, 2012)

Language Awareness is essentially about moving learners from viewing language learning as an object of study, towards explicit understanding of how language is used in a variety of contexts. It is directly linked to the shift from focus on 'form' to 'meaning' (see, for example Long and Robinson 1998) and links to how people best learn languages and how they can achieve deeper understanding of how to use languages in communication. By giving attention to language patterns found in usage, critical thinking skills can also be developed thus enabling a student to develop knowledge and skills for critical language awareness (Fairclough 1995).

It is a field which has reportedly remained peripheral to mainstream language teaching for reasons including how it connects to current theories and practices in language teaching (Bolitho et al. 2003). It is of increasing interest in research on bilingualism ranging from studies which compare bilingual and monolingual children on the learning of mathematics with particular respect to cardinality as a feature of metalinguistic development (Bialystock and Codd 1997; Carlisle et al. 1999; Haritos 2005); trilingualism (Aronin & Hufeisen 2009; Kramsch 2010; Cenoz & Gorter 2011); communication awareness (Mercer & Barnes 2007); identity (Oliveira and Anca 2009); pragmatic ability as interactional competence (Jessner 1999; Jordá 2005; Ishihara 2007); impact on mathematical processing (Wang et al. 2007); impact on first language processing (Assche et al. 2009; Lagrou et al. 2011); code-switching (Hernandez et al. 2001; Clarkson 2007); learning about grammar (Kemp 2007; Foursha-Stevenson and Nicoladis 2011); divergent thinking (Kharkhurin 2007, 2008); conceptual vocabulary (Thordardottir 2011); reading (Jiménez, García and Pearson 1995; Bialystok, Shenfield, and Codd, 2000; Miller and Keenan 2011); strategic competence (Moore 2006); and language learning as a cumulative process (Flynn, Foley and Vinnitskaya 2004)

In addition it continues to be a significant issue in research on communicative awareness (van Lier 1995; Garret and James 2000; Thurlow 2001; Dagenais et al. 2008); cross-curricular first and second language learning (Harris and Grenfell 2004); critical language awareness (Fairclough 1992); corpus linguistics where links are explored between language patterns and language use in context (Walsh and O'Keefe 2007); pragmatics (Bardovi-Harlig 1996; Yule 1996; Ishihara 2007); multilingualism and plurilingual competences (Aronin and Singleton 2008; Oliveira and Anca 2009).

Language Awareness is a wide field that encompasses a broad range of issues relating to language learning. Viewed originally as a bridging element between languages and the curriculum (Hawkins 1999) it is subsumed into approaches to Content and Language Integrated Learning (CLIL) as outlined in Marsh (2002). More recently these learning objectives have been articulated with respect to teaching competences (Marsh et al. 2010), learning approaches and the onset of any specific metalinguistic benefits.

In 1993, Yelland, Pollard, & Mercuri examined if the metalinguistic benefits as reported for bilinguals could also be found amongst children with limited experience of learning an additional language. 'After only 6 months of instruction in Italian, the marginal bilingual children showed a significantly higher level word awareness than their monolingual counterparts. This advantage weakened across grade 1, as both groups approached ceiling levels of performance. Nonetheless, the initial advantage flows through to the first major step in reading acquisition, with the grade 1 marginal bilinguals showing significantly greater word recognition skill than the monolinguals, thus strengthening the argument for a causal role in reading acquisition for word awareness' (1993:423). The issue of if and when any extra benefit on language awareness can be established is a critical issue relating to both age onset of additional language learning, and type of educational approach used.

The issue of age has more recently been examined by Luk and Bialystock (2011) who report on the flanker effect that assumes that one can prime or otherwise lead thought to another word. This priming effect is significant with respect to cognition and language awareness, especially where the student is learning through two languages simultaneously. Luk and Bialystock report that 'These results suggest a gradient in which more experience in being actively bilingual is

associated with greater advantages in cognitive control and higher language proficiency' with respect to the age at which the subjects had become actively bilingual 2011: 594). Similar findings with respect to age and executive control can be found in a range of similar studies such as Carlson, S. M., & Meltzoff, A. M. (2008). Approaching issues of language awareness is therefore in the domain of a diverse set of experimental fields some of which are more focused on cognition than language per se.

### **3.2 Teacher's Language Awareness**

Approaching Language Awareness with respect to language teachers, Andrews (2007) describes the impact of Teacher Language Awareness (TLA) on pedagogical practice with particular emphasis on grammar. However, the main tenets of the argument here extend beyond grammar towards looking at learning from the learner's perspective (Andrews 2007:28) which has been essential in developing CLIL pedagogies (see, for example, Coyle, Hood & Marsh 2010). Looking at teachers' subject-matter cognitions with respect to language teaching has been broadened within CLIL to examine language and content cognitions with respect to both language and non-language teachers. Mehisto observes '(...) maintaining a focus on multiple factors influencing bilingual education is both a challenge at the individual and systemic levels. For example, (...) content teachers in particular, and by implication education systems as a whole, find it a challenge to maintain a dual focus on content and language learning' (2011: 68). How both of these teacher types handle the simultaneous handling of content and language and the subsequent impact on pedagogy has been a major factor in the CLIL development trajectory (see, for example Montague 1997; Marsh et al. 2010).

Andrews argues that the pedagogical content knowledge of a language teacher is unique because in some contexts, in this case Hong Kong, the inter-relationship between content and the medium of instruction is so close (see, Andrews 2001, 2003). In CLIL, this dimension is not only broader, but also involves differing teacher subject disciplines. In his review of Andrews (2007), Llurda comments that teacher language awareness requires 'also a metacognitive dimension that enables teachers to plan and teach their lessons' (Llurda 2010:323). This metacognitive understanding has been found to be an essential competence for CLIL teachers whether language or non-language (see, for example, Mehisto 2011).

The issue of whether or not the learner's first language should be used in language teaching classrooms has been a problematic area within language teaching for many years (see, for instance Cook 2001; Marcaro 2005). The situation found in different countries varies enormously but the use of the first language, or otherwise reference to it, is now being promoted because of the potential benefits for nurturing metalinguistic awareness and additive bilingualism. Horst, White and Bell (2010) describe this in terms of Cross-linguistic Awareness (CLA) and argue that Krashen's (1985) emphasis on exposing learners to comprehensible input has had a profound influence on teacher education (2010:332) leading to an emphasis on not allowing use of the first language in teaching and learning environments. The renewed focus on use of more than one language in language teaching is of direct relevance to the use of CLIL and its impact on developing language awareness.

CLIL contexts require linguistically-aware teachers, whether they are specifically working on language or content. Thus they need to have knowledge and skills as language users, analysts and as language facilitators (see Edge 1988). In their teaching they need to use compensatory methods where attention is given

continually to aspects of language. Such competences, realized through teaching, enable the teacher to ensure that the learning environment has enriched forms of discourse (see, for instance, Sinclair & Coulthard 1975; James and Garret 1991; Mercer & Dawes 2008; Edmondson 2009). Considering the role of language as a conduit for understanding it is vital that any teacher, whether using the first language of the students, or an additional language, be highly skilled in the use, understanding, and ability to actively use language for teaching and learning. James and Garret (1991:8) define language awareness as ‘a person’s sensitivity to and conscious awareness of the nature of language and its role in learning.’

Although much of the work on language awareness has been on developing language teachers and language teaching, as is seen in the work of Edmondson (2009), the field is so broad that it will apply to the use of language in settings such as found in CLIL. However, it is argued that CLIL can be a poor environment if teachers, and consequently students to a large extent, are not actively supporting development of language awareness. Work by Gajo (2007:578); Genesee (2008:34); Mehisto (2008:98) all indicate the problems where teachers in CLIL-type provision are required to take responsibility for both content and language learning, and in consequence, the development of language awareness.

The European Framework for CLIL Teacher Education (Marsh et al. 2010) embeds language awareness across a range of competence fields that are featured in the target professional competences under content and language awareness. It is considered one of the pillars for success and is cross-functional in that it is a feature of CLIL which needs to be embedded in teaching resources and activities. In relation to knowledge the Framework requires that teachers have a thorough knowledge of discourse (everyday and classroom-specific); the strategic repertoire which characterizes informal, formal, and classroom discourse; the relationship

between concepts and thinking in the vehicular language; models of linguistic interaction and rhetoric.

Wolff (2012) observes that ‘ In order to be able to develop and use this target professional competence the future content-subject and CLIL teacher will have to acquire a basic knowledge of how learners learn languages in a CLIL context. She needs to be acquainted with the developmental stages of language learning, with the main SLA theories (Second language acquisition), with the factors influencing second language learning, and with the differences between first and second language learning. He also needs to know how learners are able to store and retain the new language in their brain, how they are able to separate it from their first or any other language they speak. And, finally, he or she will have to know how language is used, how humans comprehend and produce language either orally or in written form. This background knowledge is necessary to be able to understand and deploy the strategies necessary to promote language learning in a content class’ (2012: 112). In relation to use of more than one language in the classroom, García and Pavón Vázquez (2012) commenting on research conducted in Andalusia state that ‘... teachers clearly perceive the benefits of linguistic comparisons as a means to strengthen the use of two or three languages. They welcome the process by which languages help each other and assist in the assimilation and consolidation of academic content (2012: 16).

### **3.3 Learner’s Language Awareness**

Research by Dalton-Puffer (2007); Ruiz de Zarobe (2008) Lasagabaster (2009), Lasagabaster and Sierra (2009), Yassin (2010), Lorenzo, Casal and Moore (2010), Navés and Victori (2010), Várkuti (2010) Navés (2011), Dalton-Puffer, Nikula and



Smit (2011) are some recent examples of research conducted in Europe and South-East Asia which show findings on language awareness in CLIL environments. As CLIL has developed as a specific inter-disciplinary educational approach, so it has attracted not only diverse types of research on learning outcomes which have been mostly focussed on language and communication, but also critical review. One of the problems with both conducting and interpreting research is that education needs to be treated as distinct from the natural sciences when the object of study involves social action. Researching CLIL through mechanistic means results in the risk of missing understanding of key variables which are a significant element in whether a specific educational experience brings benefits or not. For example, studying grammatical development in a set of 20 hours teaching and learning, worthy in itself, is not going to capture other aspects of impact on learners such as concept formation, critical thinking, or motivation. Not all research frameworks can be applied to situations such as education which is extremely complex to examine due to the varied parameters and variables involved in what is primarily social action.

As an example we can turn to Bruton (2011), who challenges work in the field with respect to language learning outcomes. A major problem with evaluating research in this field is that firstly, many of the studies are rather small-scale, and secondly that they are focused on very specific situations. Another more significant problem relates to the sometimes narrow focus which researchers may feel bound to adopt, and which critics can highlight in identifying weaknesses, or otherwise challenge findings as reported. Language awareness is a broad area of considerable significance not only for additional language acquisition, but also competences for learning and more holistic development of how young people accumulate

experience and build knowledge through languages. Thus it can be demanding to isolate and test in research environments.

Bruton (2011:524) comments on the research by Marsh et al. (2000) on a study in Hong Kong where the authors write 'In summary, Hong Kong high school students were very disadvantaged by Instruction in English in geography, history, science and, to a lesser extent, mathematics' (2000:337). He uses this as an example of research that he considers unfortunate for the cannon of research findings that are supportive of the positive outcomes of CLIL. And yet such findings from the unique context of education in Hong Kong at the time the research was conducted does not easily enable transferability of results to, for example, contexts in other countries. The Marsh et al. (2000) study was extensive and detailed. However, it was not structured in such a way as to include parameters in the study itself on teacher quality, pedagogies and indeed competence to use the additional language, or otherwise have knowledge of the first language of the students involved. The authors note that 'An implicit assumption is made that the quality of teaching was equivalent in high schools differing in language of instruction, and that ...'because we had no measures of the quality of teaching effectiveness, we cannot pursue this conjecture in the present investigation' (Marsh, 2006). In addition, the very specific example of introducing teaching through English in fast-changing socio-political context of Hong Kong at that time was found to be positive in respect to language learning, and there were indicators that after the initial three year period of studying academic subjects through the medium of English, that the 'negative effects may lessen as English proficiency improves during the remaining three years of high school e.g. grades 10-12 not studied in this analysis' (2000: 27). For further understanding of the context in Hong Kong *in situ* there are very specific drivers active that can reduce learning outcomes such as even the language of the

classroom. Code-mixing and code-switching, for example, are widely reported with respect to Hong Kong (see, for instance Johnson, 1997, see also Lin & Man 2009).

The Hong Kong situation was not only highly specific but one where policy shift resulted in children mid-educational career switching to English without teachers being adequately prepared or otherwise trained to enact CLIL pedagogies in the classroom. The situation was detrimental because at that point neither the students nor the teachers were in a language-supportive educational environment. The same can be said of the Malaysian context in the Teaching of Science and Mathematics in English TeSME, locally referred to as PPSMI (Pengajaran dan Pembelajaran Sains dan Matematik dalam Bahasa Inggeris). A similar situation applies as in Hong Kong. The language of instruction was changed but the systemic infrastructure to enable smooth transition was minimally implemented (Yassin et al. 2009; Yassin et al. 2010).

Language awareness invites a cross-disciplinary approach to languages in education. This is often not captured in research because of the breadth of knowledge and skills involved, and is prone to being side-lined in the interpretation and critique of specific studies in equally specific locations. But there is one emerging field of research that enables features of language awareness to be explored, and this is within the cognitive neurosciences.

Bialystock and Barac (2012) report on a two phase study which examined learners in CLIL-type environments to examine if reported advantages of bilingualism resulting from children being raised in two languages could be found amongst students in immersion education environments. They look at the development of nonverbal executive control and metalinguistic awareness. Both of these relate to language awareness. Executive control concerns goal-directed thinking and action

(Bialystock and Viswanathan 2009; Yang, Yang, and Lust 2011), and metalinguistic awareness (Cummins 1978) where a person can objectify language as a process and understanding of the rules that govern language and language usage.

Calibrating results from home-based bilingual development, and experience of CLIL-type provision in immersion environments, the findings of the first study showed that ‘progress in metalinguistic ability and nonverbal executive control were associated with the bilingual experience’ (2012:69) resulting from dual language education. The second study ‘aimed to identify features of the bilingual experience (in dual language education) that contribute to metalinguistic and executive function tasks as children become bilingual. The results of the regression analyses were remarkably consistent: metalinguistic performance improved with increased knowledge of the language of testing and executive control performance improved with increased experience in a bilingual environment. This pattern was found across different samples of children in different types of immersion education programs performing different tasks’ (2012:71).

Noting that metalinguistic advantage can be found at modest levels of bilingualism the authors comment that the experience of dual-language education may be a factor enabling the students to ‘figuring out structural relations within language’ (2012:72). This is also supported by Foursha-Stevenson and Nicoladis (2011) on syntactic awareness which is reported to develop quite in bilinguals and which could be a resource in a CLIL environment where more than one language is used. The issue of type of teaching and learning environment is of particular significance in this respect.

Le Pichon et al. (2010) report on contexts in which a foreign language are taught and influence on strategic competence. Their findings indicate that explicit

language learning experience brings benefits that are greater than only exposure to the language in non-formal contexts. They comment that exposure in a formal (educational) context and after the age of four may provide children with a conscious experience of learning a new language, whereas learning a second language from birth onwards in a non-formal (natural) context may not provide this specific experience (2011:449). This conscious experience of learning a language relates to the teacher ensuring that language support is provided throughout courses and programmes. Also cited by le Pichon et al., Francis (2004) reporting on nonlinear processing as a comprehension strategy comments Clearly bilingualism is not a necessary condition for developing advanced levels of metalinguistic awareness, (...) In fact, bilingualism 'per se' may turn out to have a decidedly secondary role. Rather, as has been suggested, metalinguistic development may be favoured in 'learning' contexts in which students of a L2 are compelled to apply higher-order strategies(...)' (2004: 29)

Research of this type complements the wealth of research from dual-language education environments in North America, and increasingly now within Europe, which focuses on types of language and communicative development which takes place when students learn content through an additional language. The relationship between the emerging educational neurosciences and CLIL is taken up in Chapter 4 but it appears to be the case that exposure to the experience of CLIL-type provision can support these two fundamentally important pillars which support development of language awareness.

Mehisto (2012) observes that 'Teachers have often not been trained in taking on the challenging task of teaching academic language. This language needs to be broken down into its component parts and made visible to students so they can make a conscious effort to learn it and use it. Academic language consists of much

more than subject-specific vocabulary and terminology. Academic language has a particular tone; is often evidence-based; uses categories and concepts; has specific functions that may require hypothesizing or explaining causes and consequences; is more precise than spoken language; uses conventions such as footnotes; avoids slang; and is often cognitively demanding and context-reduced' (2012: 45). This is an essential issue for CLIL because it means that this type of language needs to be given very specific attention during teaching and learning sequences, and be embedded through scaffolding according to just-in-time techniques so as to ensure successful learning outcomes. It is this function in CLIL that helps support continuous language awareness development.

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Chapter 4                    **Study of the Contribution of Multilingualism to Creativity Compendium – Multilingualism and Creativity: Towards an Evidence-base**, (2009) European Commission: Public Services Contract EACEA/2007/3995/2, Brussels: European Commission

#### **4.1 Neurosciences & Education**

Frey & Fisher describe neuroscience as a loose collection of specialities and includes neurobiology, neuroimaging, neuropsychology, neuropharmacology... the cognitive neurosciences can serve the useful purpose of informing biologically what we understand behaviourally' (2010 : 104). Howard-Jones contextualizes this in respect to education The last decade has seen something of a step change in efforts to bring cognitive neuroscience and education together in dialogue. This may partly be due to the 'parallel world' of pseudo-neuroscience found in many schools. Much of this is unscientific and educationally unhelpful, and there is clearly a need for some serious myth-busting... There may, however, be a more positive reason why discussions are breaking out between neuroscience and education. Ideas are now emerging from authentic neuroscience with relevance for education' (Howard-Jones 2011:110).

Howard-Jones introduces various examples of recent developments where science has contributed to educational understanding such as identifying 'number sense' in mathematics (Cantlon et al. 2006); linkage between exercise and learning (Hillman et al. 2008); and teenage behaviour (Blakemore 2008), amongst others. The work leading to publication of *Multilingualism and Creativity: Toward an Evidence-base* (European Commission 2009) was an attempt to take stock of scientific knowledge from differing disciplines, but particularly the neurosciences, with respect to mind, brain, language learning and use.

In reference to Mason (2009), Devonshire and Dommett (2010) argue that ‘many of the situations investigated in neuroscience are vastly simpler than those in an education environment, where a wide range of social and environmental factors, not least the educators themselves can play a role (2010: 351). Stein et al. argue that research in the educational neurosciences is ‘already making important contributions to the field of education... this new field is also likely to radically alter our understanding of learning and schools’ (2010: 2). The same views are expressed by Fischer, Goswami and Geake (2010), Levy (2007), and Zelazo, Chandler & Crone (2010). In an attempt to establish consensus between experts of different fields, the Santiago Declaration 2007 was launched as a joint statement by a wide range of development scientists. It reads:

We assert that the following principles enjoy general and collective consensus among developmental scientists in 2007:

- All policies, programs, and products directed toward young children should be sensitive to children’s developmental age and ability as defined through research- based developmental trajectories. Developmental trajectories and milestones are better construed through ranges and patterns of growth rather than absolute ages.
- Children are active, not passive, learners who acquire knowledge by examining and exploring their environment.
- Children, as all humans, are fundamentally social beings who learn most effectively in socially sensitive and responsive environments via their interactions with caring adults and other children.
- Young children learn most effectively when information is embedded in meaningful contexts rather than in artificial contexts that foster rote learning. It is here where research coupling psychology with the use of emerging technologies (e.g. multimedia and virtual reality) can provide powerful educational insights.
- Developmental models of child development offer roadmaps for policy makers, educators, and designers who want to understand not only what children learn but how they optimally learn and further imply that educational policies, curricula, and products must focus not only on the content, but also on the process of learning.
- These developmental models along with advances in our understanding of learning in children at cognitive risk can be applied to improve learning among all children.
- The principles enunciated above are based primarily on findings from social and behavioral research, not brain research. Neuroscientific

research, at this stage in its development, does not offer scientific guidelines for policy, practice, or parenting.

- Current brain research offers a promissory note, however, for the future. Developmental models and our understanding of learning will be aided by studies that reveal the effects of experience on brain systems working in concert. This work is likely to enhance our understanding of the mechanisms underlying learning.

## **4.2 Mind, Brain & Education**

Mind, Brain & Education was introduced as a specific term for educational neuroscience through a movement comprising various organisations (driven by Cambridge (Centre for Neuroscience in Education) and Harvard (Graduate School of Education) Universities, and the OECD, including the International Mind, Brain and Education Society at the outset. This was partly linked to trans-national focus on ‘the efficacy of education in international development, economic growth and social equity’ (Stein et al. 2010: 5) whereby solutions to a broad range of major socio-economic challenges were viewed as underpinned by education, and subsequent research cooperation (Hinton and Fischer 2008, Fischer 2009). Interest in the educational neurosciences and languages was given special focus in the European Union which was one of the factors leading to the production of *Multilingualism and Creativity: Toward an Evidence-base* (European Commission 2009).

Ansari et al. comment that ‘There has been tremendous growth in the scientific study of the brain over the last 15 years, and a concomitant excitement surrounding new findings about how the brain works. The burgeoning availability of non-invasive tools and techniques used to measure brain function during cognitive tasks led to the creation of the field of cognitive Neuroscience in the early 1990s, and the continuous development of such tools has supported the

remarkable growth of this field since then. Broadly speaking, the aim of Cognitive Neuroscience is to elucidate how the brain enables the mind' (2011: 37).

Tracing the relationship between psychology and education, Ferrari (2011) describes the emergence of educational psychology at the turn of the 20<sup>th</sup> century, the efforts to apply cognitive psychology in the 1960s, the emergence of the significance of environment (family, culture, attitudes in the 1990s), and as the 21<sup>st</sup> century begins ' we have a new development, educational neuroscience' (Ferrari 2011:31). Educational neuroscience is viewed as an applied cognitive neuroscience that concerns understanding of mind, brain and education. Campbell (2011) describes 'educational neuroscience as an area of educational research that one that naturally draws on the neurosciences (especially cognitive neuroscience including psychophysiology), and yet one that falls within the broader framework of neuroeducation' (2011: 8). Campbell further comments that 'the foregoing conception of educational neuroscience, in sum, seeks to bridge the gap between minds and bodies, with particular emphasis on brains as our principal organs of thought, and thereby render the nature and various effects of educational experience more comprehensible and meaningful... and that research in educational neuroscience has (can be) geared to informing educational practice' (2011:10). Devonshire and Dommet note that 'neuroscience is a natural science that investigates the workings of the brain, the functional architecture of the mind, and how the brain and mind map together' (2010: 350).

Understanding the processes of learning has required re-thinking the traditional Cartesian separation of 'mind' and 'brain'. Technological advances in neuroimaging through functional magnetic resonance imaging (fMRIs), positron emission tomography (PET) scans, and optical topography (OT), amongst others, have had a major impact on examining processes of language and thought, and within this of



language, and at a basic level much of this relates to plasticity. 'Plasticity is an intrinsic property of the human brain and represents evolution's invention to enable the nervous system to escape the restrictions of its own genome and thus adapt to environmental pressures, physiologic changes, and experiences... plasticity is the mechanism for development and learning, as much as pathology' (Pascual-Leone et al. 2005: 377). Plasticity means that the brain is adaptive and malleable, and that this cerebral architecture is heavily influenced by experiences such as when learning at school, or immersion in a new environment (see, for example, Athanasopoulos et al. 2010).

Plasticity and learning is now of central interest in the emerging educational neurosciences (OECD 2002, OECD 2007), and those involved with enabling greater understanding of the impact of CLIL learning environments. In his monumental text *The Principles of Psychology* (1890) William James describes it as 'weak enough to yield to an influence, but strong enough not to yield all at once' (James 2007: 68).

### **4.3 Insights from Mind, Brain & Education on Languages**

Evidence that there are differences in the microstructure of the brain between those who are monolinguals and those who know two or more languages, to varying degrees, is widespread (see, for example, Kovelman et al. 2008, Kim et al. 1997, Yoshida 2008, Ransdell et al. 2006; Emmorey et al. 2008; Davidson & Strand 2005).

Bialystock and Craig (2010) examine how bilingualism might affect cognitive and linguistic performance across the life span. Focusing on the development of the executive-function system they report that 'This body of research has converged

on the conclusion that the experience of speaking two languages on a regular basis has broad implications for cognitive ability, enhancing executive-control functions across the life span. Ironically, the only recorded negative consequences of bilingualism are on verbal knowledge and skill – specifically smaller vocabularies and less rapid access to lexical items. But this is easily outweighed by the evidence supporting a range of advantages in the development, efficiency, and maintenance of executive functions’ (2010:22).

Research in this field does not only consider research subjects who have considerable levels of fluency in more than one language. It also examines impact in terms of effect of how languages are acquired and learned, and smaller or larger exposure and levels of fluency. In these respects it has been of interest to those involved with CLIL. Research on the impact of different types of language training has a long tradition outside the neurosciences (see, for example, Dulay et al. 1982; Bley-Vroman 1990; Ellis 1994; Ellis et al. 2005) and now we are witnessing the different types of approaches to similar hypotheses from the emergent neurosciences.

Mohades et al. (2012) examined the starting age and type of second language acquisition with respect to language circuitry. Accepting that there are differences between monolinguals and bilinguals, just as there are differences in the brain architecture of other types of people depending on the stimulus they receive and environment in which they operate, the focus on type of language learning environment is of great interest here. The overlap and differences between language learning and language acquisition, and the location of CLIL on any continuum between these is an issue where neurosciences can inform educational policy and practices. Research by Mohades et al. (2012) specifically examines the influence of having an additional language on the neuroanatomical structure of

white matter in the brain. Understanding how certain types of stimulus and learning environments impact on the brain, even in cases of small exposure to language development is of particular interest with respect to CLIL.

Morgan-Short et al (2012) examine explicit and implicit second language training and brain activation patterns. 'Learning a language as a child is typically natural and effortless. Learning a language as an adult, in contrast, is fraught with difficulty. Indeed, it is widely believed that adults are not able to learn a second language (L2) using the same neurocognitive mechanisms that children rely on for their first language(L1)' (2012: 1). This research specifically compares explicit language training (as in focusing on grammar and structures) and implicit language training (described as immersion settings). '...explicit training is defined as training that provides learners with information about L2 grammar rules or directs them to search for rules, and implicit learning is defined as training that engages L2 learners with the target language but does not provide any explicit information or direction to search for rules' (2012:1) which is frequently the case with CLIL educational provision. Noting that ... any advantages of explicit or implicit training on attaining high proficiency are, surprisingly, still unknown' (2012:2), the authors argue that the neurocognitive mechanisms differ and that use of an artificial language for the purposes of such research enable greater control over some of the variables that add to the complexities of conducting educational research.

Bialystock and Barac (2010) also study development of children in immersion contexts (grades 2-3). The results were consistent in revealing that 'metalinguistic performance improved with increased knowledge of the language of testing and executive control performance improved with increased experience in a bilingual education environment (2012:71). What is particularly interesting here relates to amount of exposure to bilingual education programmes, ' ... these findings extend

previous research demonstrating a benefit of bilingualism on children's executive control by calibrating improvements in executive function tasks to the time spent in a bilingual education program' (2012: 71). In noting that metalinguistic advantages have been reported at modest levels of bilingualism, the authors point out that 'The outcomes of bilingualism depend on both the achievement of adequate linguistic proficiency and experience over a sufficient amount of time using two languages' (2012: 72).

Bialystock and Barac also comment on the significant differences found between implicit and explicit types of learning context. Teaching an artificial language with both groups, 'electrophysiological (ERP) measures revealed striking differences between the group's neural activity at both proficiency levels in response to syntactic violations... (T)hus only implicit training led to an electrophysiological signature typical of native speakers. Research like this does not reveal that either explicit or implicit approaches are better for the end goal, namely to learn a language, but that they evoke strikingly different responses in the brain. The conclusion states that 'the study suggests that, at least in certain cases, the attainment of L1 neuro-cognitive mechanisms in second language acquisition appears to depend not only on the level of proficiency but also on the conditions under which the L2 was learned' (2012: 13).

Research such as this may have considerable impact on deepening understanding of the effects of implicit 'naturalistic' learning environments as common to CLIL. The implication is that the effect of such learning environments in neurological terms may enable greater understanding of the educational experience in methodological respects.

For example, in respect to a naturalistic approach to language learning, Ojima et al. (2010) in a three year longitudinal study of children learning a foreign language report 'our data are consistent with the hypothesis that FL learning in childhood reproduces identical development stages in an identical order to L1 acquisition, suggesting the nature of the child's brain itself may determine the normal course of FL Learning' (2010: 183).

The significance of the relationship between learning and memory is also relevant here because the concept of learning is understood as gathering and synthesizing information on the basis of what is already known. Techniques that explicitly anchor new and previous learning is found in quality CLIL practise (see, for example, Meehisto, Marsh & Frigols-Martin 2008). Just as the concept of knowledge is now considered as multi-variant (see, for example Kruglanski 1989) so is the complexity of differing forms of memory. This links to CLIL because it ventures into overlap and distinction between language learning and language acquisition, and declarative and procedural memory.

Declarative memory is described as involving explicit learning, whilst procedural memory is considered in terms of implicit learning. The integrated nature of combining content and language within CLIL, and the extent to which learning shifts from implicit to explicit is a developmental issue of some significance (reference). In addition, types of memory such as perceptual, working, declarative, emotional and motor (see, for example, Squire et al. 2003) all require attention with respect to effective teaching and learning practises. This is particularly interesting with respect to the benefits of having some competence in using an additional language (see, for example, Cook & Bassetti (2011); languages and attitudes towards the self as a language learner and CLIL practice (Marsh et al. 2010 ); and also the impact of language use and learning on the brain.

In a study on creative problem-solving examining monolinguals and bilinguals Cushen & Wiley (2011) examine if bilingualism may impart a cognitive profile conducive to solving insight problems. An insight problem is one where the person needs to the issue from, possibly radical, different perspectives. The main findings are reported as ‘providing the first evidence that early bilingualism can confer relative advantages on insight problem solving versus non-insight problem solving tasks, especially as compared to monolinguals who show the opposite pattern (2011:461). Research of this type is interesting in terms of learning activities, especially those relating to problem-solving and higher-order thinking. The strong cognitive approach to CLIL (see, for example, Coyle, Hood & Marsh 2010), and current lifestyle factors relating to media-rich environments requires understanding of problem-solving, scaffolding and other issues relating to task types and methodologies used for teaching and learning.

For example, Howard-Jones (2009) reports on fRMI studies which report that there is more creative response when the initial stimuli are three distinct words such as dolphin, jewel, print rather than three words closely related such as artist, brushes, paint (2009:10). Seger (2000) found similar findings when an unexpected verb follows a noun, such as the cat painted or the tiger cycled.

#### **4.4 Media-rich Environments, Students and Education**

At the same time that CLIL developed through the 1990s through to the present, there was a parallel shift occurring with respect to the learning orientation of young people who have been widely exposed to integrated technologies and subsequent rich media-centric lives. It is argue that we have experienced an acute change in a very recent period of time that requires an appropriate response in

relation to education, amongst other factors such as health and security. Leicester (2011) comments that 'Many yearn for something more than improvement, aiming instead for nothing less than transformational change in the education system for the global age' (2011:4).

The impact of media-rich lifestyles links back to neuroplasticity and changes in neuro circuitry. In 2003 a study was carried out in the USA by the Kaiser Family Foundation on exposure and use of electronic media amongst children aged 6 months to six years. The study was replicated in 2005 (Rideout & Hamel 2006). Showing a steady increase of media-rich experiences, the 2006 study reveals the following rates of 2 hours or more per day exposure to screen media per day: 6-23 months 14%; 2-3 year olds 41%, and 4-6 year olds 43%. The average (2005) school-aged child is cited as spending about 25 hours per week using various forms of media. The 2010 follow-up study reported that 8 – 18 year olds were using electronic media for an average of 7 hours and 38 minutes per day, and that 20% of this was using mobile devices. Thus the 2010 average is 51.66 hours per week, which is already a substantial period of time if compared to 25-30 hours per week tuition time found common to European secondary education. Time spent using digital devices is also particularly interesting when compared to reading literacy (see, for example, PIRLS 2006).

Jukes et al. (2010) provide a succinct set of arguments that in the past decade increase in the type and usage of digital media has had a profound impact on the minds of young people and that dissatisfaction with contemporary schooling is steadily rising. Noting that the 'rapid evolution of the brain that is occurring today is making many reconsider the validity of traditional thought on cognitive development' (2010:2) pointing to apparently negative and positive consequences

(see, for example, Small & Vorgan 2008, Medina 2008, Lenhart et al. 2007, Prensky 2006, Johnson 2005, Doidge 2007).

Arguing that this shift is profoundly extensive, Jukes et al. (2010) discuss the notion of digital literacies in relation to the concepts of DFL (digital as a first language) and DSL (digital as a second language). 'What some of us don't understand is that the reason the digital generation has different skills and literacies is that there has been a profound shift in the kind of skills used and needed to operate in the digital world. The reason there skill development is different is because their focus is different' (2010:11). The argument by these authors and others (see, for example, Howard-Jones 2009) is that digital fluency is profoundly important and is largely bypassed by educational systems, and those within them who may not understand the speed and scale of change.

The interactive basis of digital literacy strengthens the case of socio-constructivist principles to be applied to education, as found in CLIL (see, for example, Wolff 2012), and further emphasise the need to link new information to something the student already understands; making the topic of learning relevant to the student's own perspectives and understanding; providing differentiated learning opportunities; and providing various forms of feedback throughout the learning experience.

Although different definitions of the term feedback exist, it is not only found to have a powerful influence in learning environments (Hattie 2007), but is also a defining feature of gaming and other features of media-rich environments. Ramaprasad defines feedback as 'information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some way (1983:4).



Feedback and intensity of feedback is a core feature of gaming. It is also real-time whereas in education it can be described as inconstant and delayed (such as comments on an essay). Social networking also invites immediacy of feedback and response. In media-rich environments there are many often quite different forms of feedback that maximize interactivity, and of particular importance to education, help the user navigate. It is a different world from one where a teacher monologues in a classroom, and it is closer to a peer-learning CLIL learning environment where students work together to achieve joint outcomes (see, for example, the work of digital game designer Robin Hunicke, Feinstein 2004, Johnson 2005, or Kandel 2006).

Even if dialogic methods have been principles of quality education in the past, digital literacy now makes them more acute. Jukes et al (2010) argue that ‘Because of constant digital bombardment, the emergence of the new digital landscape, and the pervasive nature of digital experiences, children today are growing up digitally enhanced... They have developed what we call hypertext / hyperlinked minds. Their cognitive structures process information in parallel or simultaneous manner, not sequential like ours’ (2010:11).

There are numerous studies cited which argue that one aspect of digital literacy, namely visualization, appears to have also become more significant for education in a digital image-rich age. The 21<sup>st</sup> century Fluency Project reports on research replicating Dale’s work in the 1960s on the impact of audio-visual techniques and learning (Dale 1960). This relates to learning intake through use of different methods and presents findings that after 2 weeks on average, learners recall less than 10% of what they read; about 20 % of what they hear; about 30 % of what they hear and see simultaneously; about 70% of what requires their active participation; and more than 90% of content learning which involves hearing and

seeing, active participation, and an opportunity to either teach someone else or otherwise apply in context or through simulation.

Socio-constructivist multi-variant activities have been widely developed through the implementation of quality CLIL (see, for example Coyle, Hood & Marsh 2010). It appears that the challenge of working in an additional language, with all the special characteristics that this introduces into a learning environment, such as diverse linguistic competences, has encouraged the development and use of quality teaching and learning approaches. These have included focus on mental structures that represent content such as graphic organisers and concept maps which act as tools supporting learning, and which enable chunking of information (see, for example, Guthrie et al 2004). Through the neurosciences new insights are being steadily found which explain the impact of specific types of teaching and learning experience. This relates to chunking information in a manner 'consistent with working memory and long-term transfer' (Frey & Fisher 2010:106); reading skills (Walczyk et al. 2007); phonemic awareness (Schmahmann & Pandya 2006), visual information in learning (Stenberg 2007) , teacher modelling and demonstration (Cattaneo & Rizzolahti 2009) , and narrative (Speer et al. 2009); problem-solving (Cushen & Wiley 2011); language-switching (Garbin et al. 2011); and thinking patterns (Hommel et al. 2011)

#### **4.5 Mind, Brain, Education and CLIL**

One aspect of quality is relevance of learning, to the learners involved and to the cultural characteristics of the wider environment. Wolff (2012) describes CLIL as a change agent with respect to education, '...CLIL cannot simply be called a current trend in language and/or content learning but must be seen as a more general

concept through which we are able to bring about real change into language education and education in general' (2012:106).

Over the past two decades, the development of CLIL, emergence of digital literacies, and research on mind, brain and education, have been complementary. The opportunity now is to examine if in education we can move on from Bruer's (1997) comment on the relevance of brain science (of this period) to education as being a 'bridge too far'. And to examine, particularly with emergent educational innovation such as CLIL where there is interplay between subject learning and language, if practise can be greater informed through interdisciplinary research on mind, brain and education. It is widely argued that the potential impact of research on the brain 'is not even debatable' (Devonshire & Dommett 2010: 349). The same applies to Willingham (2009) who describes the advances made on understanding dyslexia, and work on key neurocognitive processes (see, for example, Goswami 2006).

From the impact of learner anxiety and mathematical concept formation, through to the impact of bilingualism on creativity and complex thinking processes, there are now opportunities for examining those indicators that may be considered when understanding or otherwise developing good educational practice in CLIL. What is clear when looking at research on development disorders such as dyslexia, dyscalculia, and Attention Deficit Hyperactivity Disorder (ADHD), is that education can have a critical influence on how the brain works, and that the formative brain development continues into early adulthood.

Some examples can be found in Macedonia et al. (2010) who summarize recent research on language vocabulary learning such as phonological and long-term memory; Gathercole (2006) on repetition; Morra & Camba (2009) on embedding

new vocabulary items with pre-existing representations; Dobel et al. (2009) on the way words are shaped; (Dunabeitia, Carreiras & Perea (2008) on ortho-phonology; Kelly, McDevitt & Esch (2009) on multimodal teaching strategies such as co-speech gestures; Shams & Seitz (2008) on multi-sensory learning; Turkeltaub et al. (2003) on reading; and Anton-Mendez & Tamar (2010) on semantic association.

In connecting such research to classroom practices, Ansari et al. (2010) comment 'We believe that teacher education programs need to integrate courses on cognitive neuroscience into their curricula, or integrate cognitive neuroscience methods and findings into their current courses... of course such courses should not be focused solely on results from brain imaging studies, but should also discuss evidence from behavioural research: by definition, Cognitive neuroscience is an interdisciplinary science that draws on results from cognitive psychology, neuroscience, sociology and anthropology to generate a better understanding of cognitive processes' (2010: 40).

A recent meta-analysis conducted by Adescope et al. (2010), published a year after the (2009) European Commission study examines potential linkage between bilingualism and a range of cognitive skills. The main areas described concern attentional control; working memory, metalinguistic awareness, metacognitive awareness, abstract or symbolic reasoning, creative and divergent thinking, and problem-solving.

The Multilingualism and Creativity: Toward an Evidence-base (European Commission 2009) report groups together indicators according to flexibility (cognitive, affordances, interpretations, creativity, divergent and convergent thinking); problem-solving (executive function processing, attentional control); metalinguistic awareness (linguistic processing, enriched information processing);

learning (memory, abstract and symbolic reasoning, innovative thinking, hypothesis formation); and interpersonal skills (communicative sensibility, interactional competence, context understanding).

Thus both the 2009 and 2010 meta-analysis studies, conducted independently in different disciplines using equally different research approaches, have similar outcomes with respect to the impact of languages on the brain. The 2009 European Commission process involved analysis of over 400 research publications with final focus on 80 including some research outside the neurosciences. Adesope et al. (2010) focus on 63 studies all of which are from a specific set of neuroscientific fields.

In their conclusion Adesope et al. (2010) note ' Although monolingualism is often depicted as normative, the best available evidence indicates that, around the world, bilingual and multilingual speakers out-number monolingual speakers. The current work suggests that bilingualism (and presumably multilingualism) is associated with a number of cognitive benefits. These findings point to the need for further work investigating the utility of these benefits in a variety of contexts. For example, cognitive benefits documented in the current work may be of use to bilingual speakers in classrooms where the language of instruction is not their native language. As the pace of immigration to developed countries increases, the incidence of bilingualism and multilingualism in these countries will also increase – as will the number of second language learners in public school classrooms. Although second language learners often present problems within the classroom, the current analysis suggests they may also bring a number of advantages. It remains unclear how, in practice, second language learners and their instructors may capitalize on these advantages' (2010: 231).

This is the issue raised by Wolff (2012) when he argues that a language-sensitive educational approach such as CLIL has become relevant for a wide range of European teachers in schools, simply because of the first language diversity now increasingly found in classrooms.

The European Commission (2009) report observes: ‘The available evidence shows that we are at a very early stage of understanding the impact of multilingualism on the brain, and on any form of resulting outcome such as creativity. There may not yet be any direct causal link between multilingualism and creativity, but knowledge of another language is considered as more likely to increase cognitive functioning, including creativity, than the reverse. The scientific findings reveal that there is no definitive single causal link between multilingualism and creativity. There is no ground-breaking “eureka” moment of research which proves that knowledge of additional languages leads directly to enhanced creativity. This is normal in any research cycle in a field of such complexity. The findings reveal that existing research in different disciplines is at a crossroads with newly emerging findings from neuroscience. We can see that more traditional research findings and new neuroscience discoveries are often complementary’ (2009: Executive Summary).

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Chapter 5     **Content and Language Integrated Learning**  
(2011) Encyclopedia of Applied Linguistics  
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### 5.1. Transforming Education in the 21<sup>st</sup> Century

In 2012 a high level group of education experts convened to discuss transformation in education (TES 2012). The issues raised are part of an immediate and urgent and continuous dialogue across the world with respect to speed of change and means by which to enact change. These are:

- Adopting a holistic view of education which shifts towards learner-centricity
- Identifying key success factors such as equity and competence-based education involving problem-solving skills and pattern recognition as opposed to rote learning and rewards for memorization
- Recognising that the demand for change now requires a response as significant as the setting up of basic education systems which occurred at least a century ago and that these systems have changed little in this time
- Leveraging quality education through focus on creativity, critical thinking, communication and collaboration
- Changing curricula from emphasis on what to learn towards how to learn and activating this in rich learning environments which extend beyond the confines of a classroom and school hours
- Recognising the relevance of the newly emerging literacies that are now indisputable with respect to the impact of technology on the lives of young people.

These are key change agents identified and scrutinized across the education systems of the world (see, for example, Moujaes et al. 2012). Forums such as TES reiterate that we are now in the middle of the greatest global challenge in education for a century where teaching, schooling and learning are at the crossroads in enabling countries to redefine how young people should be supported and prepared for this new age.

This leads to the significance of transformation in education. The world in which young people live has already been transformed through accelerative processes due to the availability and impact of technologies, mobility and the changing working life landscape. If you consider countries and regions which have transformed their educational systems in the recent past and which score highly on international educational assessments, such as Finland, Singapore, Canada (Alberta) then it is evident that quality of teaching leading to enriched learning environments, equity of access, and relevance of both methodologies and content, are key drivers for achieving high quality results across a wide spectrum of school populations. It is a case of professional capital leading to the realization of human and social capital through education both compulsory and lifelong.

In education, professional capital is dependent on decisional capital (Hargreaves & Fullan 2012) because as in law sometimes judges need to make judgements where the situation is unclear because there is no precedent. The same legal principles apply to teachers who see the need for change through innovative practice although the educational structures may not be able to offer firm infrastructure or even guidelines on practice other than those that are bound to existing legislation. And this has been the situation faced across Europe with educational practitioners and researchers who have become involved with CLIL over the period 1994-2012. Another widely held opinion is that it takes at least ten years to realize change in

educational practices, and up to 30 years to have these scaled up through existing educational administrative structures in many countries. However, in contexts which are relatively small such as Alberta, Canada (population 3.5m, 2,000 schools, number of students 0.6m, number of teachers 39,535), New Zealand (population 5.4m, 2,600 schools, number of students 0.8m, number of teachers 38,312), Victoria, Australia (population 5.4m, 2,279 schools, number of students 0.9m, number of teachers 40,000), there is evidence that transformation can be swifter (Barber et al. 2011).

‘Education is the engine of economic growth’ (Moujaes et al. 2012: 2) and there are certain conditions that enable innovative practice such as CLIL to take root. In Finland, educational governance is conducted in close cooperation with other key government agencies, which are bound by consensus on direction for the benefit of the whole society and economy (Sahlberg 2011). Moujaes et al. 2012 describe the Finnish situation in this way. Finland has improved its educational system in recent decades, to such an extent that it has become a destination for those who wish to replicate its success. To deliver within, Finland relies on a strategy of decentralized authority and empowers teachers with more autonomy and flexibility. Finland’s national core curriculum serves only as a framework and is not prescriptive. Instead, the curriculum is largely developed at local levels. This gives principals and teachers wide latitude and independence to decide how and what they will teach. The same holds true of accountability and performance monitoring, which is primarily handled by individual schools. The national inspectorate was abolished 20 years ago. The National Board of Education conducts standardized testing only on a sampling basis’ (2012:17). This is the type of context in which educational innovation can take root because it enables the front-line educators and their administrators to make heavily localised decisions on how to respond to the needs

and challenges of the communities they serve. The demand for English, riding on the needs of globalisation, were major CLIL drivers in Finland but this would not have been developed so swiftly if the governance were more centralized and educator autonomy reduced. Parents and young people wanted better access to English and the schools duly responded by looking at ways to integrate English language with other subject matter. The next step was to learn how to do it and this is one reason why Finland has been often cited as a *primus motor* for CLIL in Europe. The fact is that CLIL was only one type of integration that was taking place in the last twenty years. The Finnish core curriculum is both integrative and competence-based, and the environment was primed to enable change to happen.

Mourshed, Chijioke & Barber (2011) argue that 'Almost every country has undertaken some form of school system reform during the past two decades, but very few have succeeded in improving their systems' (2011:10). The authors report on high improvement performing systems in Singapore, Hong Kong, South Korea, Ontario – Canada, Saxony – Germany, England, Latvia and Lithuania. They find that in these systems where there is a shift from being ranked as 'excellent' the following features can be found: peer-led learning for teachers and principals involving collaborative practice, decentralizing of pedagogical rights to schools & teachers, the creation of additional support mechanisms for educators, and supporting system-sponsored experimentation and innovation across schools. These are key features of CLIL-based school and regional activities common to the period 1994-2012 as found in Finland, and other regions/countries to a greater or lesser extent.

CLIL has been seen to often be a grassroots activity in schools across Europe during 1994-2012, supported by centralized initiatives (e.g. Italy 2011), led by educators who create visions, develop solutions, and test various forms of implementation.

It is the quality of teachers that is not only recognised through research as definitive in achieving quality learning outcomes, but also subject to scrutiny (Hargreaves & Fullan 2012). Arguing that that teachers are at the peak of their profession between 8-20 years of experience and that it takes about 10,000 hours of experience and development to reach this degree of professionalism, it has not been surprising that teachers involved with CLIL across Europe have been those already engaged with education and who have been exploring innovation, in this case through integrating an additional language with some form of non-language subject matter.

### **5.2 Transformation of Education through CLIL**

Many of the eclectic models of language and content integration which have emerged in Europe have required 'learning through experimentation' because of the lack of initial evidence-base to support decision-making. Now after some 18 years of practice not only is the evidence-base being steadily built up but types of practice are being consolidated so that certain types of practice are becoming increasingly mainstream.

One of these issues relates to distributive leadership within schools, that is that innovative practice is introduced and led by a specific group of individuals who explore best practice 'in situ' and who have specific qualities that help realize some degree of success. Evidence in available literature focuses on these personal attributes of quality educational leadership (as reported in Barber et al. 2011): focus on student achievement; resilient and persistent in goals, but adaptable to context and people; willing to develop a deep understanding of people and context; willing to take risks and challenge accepted beliefs and behaviours; being self-aware and able to learn, and finally, being optimistic and enthusiastic. These



mirror closely teacher competences for CLIL as found in the European Framework for CLIL Teacher Education (Marsh et al. 2011). The practices outlined by Barber et al. 2011, and supported by a wide variety of studies such as found in Leithwood et al. 2006; OECD 2007, 2009; and Day et al. 2010, are reported as 'Building a shared vision and sense of purpose; setting up high expectations for performance; role modelling behaviours and practices; designing and managing the teaching and learning program; establishing effective teams within the school staff, and distributing leadership among the school staff; understanding and developing people; connecting the school to parents and the community, and recognizing and rewarding achievement (Barber et al. 2011:6). As with personal attributes the ability to implement practice within a school programme which involves often considerable change of conventional practice has required involvement of exceptional individuals, both teachers and administrators, within a school, region or country.

The 2009 meta-analysis of over 800 studies involving some 200 million students (Hattie 2009) provides the most recent comprehensive review of educational practices, with respect to achieving quality of learning. Ranking such activities as cognitive mapping, focus on challenging goals, using visual-perceptive methodologies, peer teaching, cooperative learning and problem-solving teaching, the report also focuses on key success factors. These state that barriers linked to social class and prior achievement is surmountable and that the following are high return activities: challenging goals with scaffolding available to achieve these goals; language awareness, establishing high student expectations; formative assessment largely controlled by students; continuous critique/feedback; peer interaction and learning through interaction; and having learners seeing themselves as teachers with responsibility for achieving learning for themselves and peer cohorts. Having

teachers able to see learning through the eyes of the students and being able to learn alongside the students is a recurrent finding with respect to teacher perception and attitudes. Qualities and practice such as these are embedded in quality CLIL teaching and learning practices as found in the European CLIL Teacher Education Framework (Marsh, 2011).

In 1989 Fishman observed that ‘ Bilingual education must justify itself philosophically as education’ (1989:447). In 2012 Wolff comments that CLIL is beginning to impact on institutionalized education and that it is a change agent. In describing how CLIL often emerged as a means for bolstering learning of widely used languages such as English, he argues that the methodologies that have been developed now apply to much wider contexts. Associating CLIL with the adoption of English has been understandable given the popularity of the language in Europe and beyond, and this has evoked widespread criticism from those warning of the domination of English to the detriment of multilingualism (see, for example, Pennycook 1998).

CLIL is not specific to English language. It has emerged as a very specific form of language supportive education that can apply in a variety of contexts where the learners have a deficit in one or more languages. Writing about the European Framework for CLIL Education Wolff comments that ‘CLIL teacher education, if taken seriously, constitutes a fundamental part of all teacher education, that every teacher should be educated, in fact, as a CLIL teacher (2002: 107). He argues for this because of the nature of modern classrooms in terms of demographics resulting from mobility. There is an additional issue here relating to modern young people and reading skills. That is with reading levels on the decline, and the emergence of digital literacies, there is a real need for education to take every greater responsibility for literacy throughout the basic educational lifecycle,

including tertiary level. Wolff further comments that ‘The concept of language-sensitive content teaching is based on a set of different scientific concepts derived from second language acquisition research, from cognitive psychology and from constructivism. Empirical research in second language acquisition has shown that languages are learnt while they are used (language learning as language use); cognitive and constructivist psychologists have made it clear that language learning takes place when learners are involved in the content they are dealing with. These findings provide a sound theoretical basis for a CLIL approach which is content- and not language oriented’ (2012: 108).

Much research on CLIL has been with respect to language development. There has been little on the fusion of language development and content learning, or on content learning itself. Briedbach & Viebrock (2012) comment that research on CLIL only become a full-fledged field in Germany after 2000, even though CLIL-type practice dates back to the 1960s. And even at this point in time ‘CLIL in Germany has been and still is framed within the context of foreign language learning’ (2012:6). Thus the major focus is not only on language, but also often within the domain of a foreign language.

The field of research is beginning to be broadened to include facets of content learning, and cognition as in Heine (2010) who reports on semantic processing and problem-solving amongst CLIL learners. Zydatiſ (2012) also comments on the need for research on subject matter achievements alongside language learning development (2012:28). Coyle (2007), and Coyle, Hood & Marsh (2010), also argue the case that language is only one part of the learning processes and outcomes that need attention within research frameworks. Bonnet (2012) argues for greater use of quantitative instruments to complement insight gained through largely

qualitative research approaches so that forms of meta-analysis can be achieved. Such meta-analyses would need to be inter-disciplinary.

There is now a considerable body of research that has been published in languages other than English. Most of these are in French, German, Italian and Spanish. A 2012 journal issue focuses on recent research in Germany (ICRJ 2012), and there is a body of research which is not only published in languages other than English, but which reports on use of languages other than English as a vehicular language. An overview of research on CLIL in Europe (Pérez-Canado 2012) provides an overview of research mainly published in English, but the future of research in this area published in languages other than English is essential if the complexities and benefits of this approach are to be both articulated and comprehensive.

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## Chapter 1: The European Socio-Political Dimension

*CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential*,  
(2002) European Commission: Public Services Contract DG EAC 3601, Brussels:  
European Commission

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**Executive Summary**

Chapter 1: Emergence 1958 – 2002

Chapter 2: Dimensions

Chapter 3: Realization

Chapter 5: Added Value

Chapter 6: Future Prospects

Chapter 7: Recommendations for Extending Delivery & Good Practice

Reflection Document

**CHAPTER 1 : CLIL/EMILE IN EUROPE: Emergence 1958 – 2002**

**Synopsis**

By tracking the development of language teaching and learning over the last five decades alongside the socio-political developments leading to European Integration, it is possible to determine the origins of what has come to be termed Content and Language Integrated Learning (CLIL/EMILE). In order for the member states of the European Union to adhere to its language objectives, particularly the goal for each school leaver to have competence in three EU languages (1+>2), the breadth, scope and nature of existing platforms for language teaching and learning have required re-



examination and adaptation. CLIL/EMILE can be considered a pedagogy which focuses on 'meaning' which contrasts to those which focus on 'form'.

Commitment to maintaining and enhancing Europe's linguistic and cultural diversity can be seen EU treaties, European Parliament resolutions and other supra-national rhetoric stretching over the last fifty years. But language policies, rhetoric or good intent do not sustain and enrich language because the core conditions for any language to thrive and grow are need and use. The shift within the language teaching profession in this period towards exploring different ways of learning languages 'by doing' may be in response to those linguistic realities outside the school which have a major impact on what can be achieved inside the classroom. Put bluntly, more students need more language competence. This is to be achieved without the opportunity for increased resources, either in time or personnel, which can be devoted to language teaching itself. Over the last decade in particular, the external pressure to find a solution appears to have led to the adoption of forms of CLIL/EMILE because through appropriate delivery learners are able to have dual-focussed teaching which enhances learning of both subject content and the language itself. It is viewed as a pragmatic solution which could help development of the European Council's target of making education and training systems a world reference by 2010 on the basis of improving quality, providing universal access and opening up to world dimensions.

### **Supra-national European Initiatives & Evolution of Language Teaching**

Teaching and learning through a foreign language has a long tradition in Europe particularly in border regions and certain types of selective school or college. Exposure to this form of educational has historically been linked to very specific geographical or social factors. It has generally involved a small fraction of any given school population. Integrating language and non-language content has been referred to as the hallmark of all forms of bilingual education.<sup>1</sup>

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<sup>1</sup> Genesee, F. 1987. Learning through two languages: Studies of Immersion and Bilingual Education. Rowley, MA: Newbury House. See also Met, M. 1998. Curriculum decision-making in content-based language teaching. In J. Cenoz & F. Genesee (eds.) Beyond Bilingualism: Multilingualism and Multilingual Education (pp.35-63) Clevedon: Multilingual Matters

**1950s**

In the 1950s, dialogue in the early stages of what became the European Union focussed on not only language policies, national and supra-national, but also language teaching and learning. At the same time that there was socio-political dialogue, and statements issued on how policies should be implemented and realised, there was increasing pressure within education to re-evaluate how languages were taught, and perhaps more crucially, how languages were learnt.

In June 1958, an EEC Council Regulation<sup>2</sup> determined which languages were to be used within the European Economic Community. From this point on a clear message was sent out to the education profession, and other stakeholders, that an increasingly integrated Europe would continue to be a plurilingual entity. Integration, and the ensuing human mobility, would require that increasing numbers of ordinary people should be able to learn and use other European languages to a greater or lesser extent.

In the 1950s, the learning of foreign languages, in some educational systems, was characterised by what has been termed the 'hard option'.<sup>3</sup> This view, perpetuated a vision of how languages should be taught, and by whom they should be learnt. A predominant pedagogical focus was on mastery of linguistic structures.

Long-term commitment, rigorous learning of rules, mental discipline, memorizing word lists, grammatical rules and prose, academic, intellectual training, serious schooling, are a few of the terms used to describe the challenge of learning a foreign language. The prevailing view of this era often considered the learning of the 'classical languages' in similar terms to the learning of modern European languages.

'Since languages were deemed hard, hard in some extra-curricular way, that is, hard in their nature, then there is little incentive, and little benefit, in teachers and curriculum writers trying to make languages easier on the learner. This would defeat the purpose'.<sup>4</sup> This was an attitude that had permeated language teaching for nearly half a century and now, on reflection, is referred to as the grammar/translation approach. It had carried over from the teaching of classical languages into the teaching of modern

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<sup>2</sup> EEC Council regulation No.1, June 1958

<sup>3</sup> Argued by Lo Bianco 1995 in *Hard Option, Soft Option, Co-option*, Education Australia Issue 31

<sup>4</sup> *ibid*

languages. The key concept enabling language teaching to shift away from this approach was that of relevance.

Exercises such as the following which is taken from a widely-used 1950s textbook in the United Kingdom<sup>5</sup>, became increasingly challenged within education because they lacked relevance, to the lives, aspirations and often interests of the learners:

Put into the Possessive

She's done the work of a whole day

The new tie of my friend Cyril

The army of Cyrus

For those learners able to succeed whilst studying under such 'hard option' curricula, prestige was bestowed. Both classical and foreign language curricula were almost automatically assumed to be only for the 'brighter' students. Such 'high achieving students' could not only learn foreign languages, but also go on to use them in specific professions by being able to access the literature and cultural wealth of other cultures. A common dictum was 'languages for brighter students which make students brighter'.<sup>6</sup>

### 1960s

After 1958, a long period elapsed before issues pertaining to foreign language teaching and learning were given official recognition at the supra-national level. In February 1976, the Education Council<sup>7</sup> listed objectives concerning the teaching and learning of foreign languages and more specifically, promotion of language teaching outside the traditional school system.

Meanwhile, the 1960s and 1970s had witnessed a significant shift in terms of both attitudes towards languages and perceptions of how to enhance language learning. In the 1960s there was increasing acceptance that languages were important for spoken communication, and not just for reading and accessing knowledge. The prevailing view of the era was that a language could be mastered through grasping certain linguistic

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<sup>5</sup> W.Stannard Allen 1959. Living English Structure p.17

<sup>6</sup> Lo Bianco 1995 as above

<sup>7</sup> Education Council, 9 February 1976, Resolution

routines. The prevailing pedagogy was increasingly served by the new technologies of the era, notably the tape recorder and language laboratory. These were used to develop 'habit formation resulting from repeating certain patterned language drills'. This was termed the behaviourist or structural approach.

However over the decade a debate took place over the argument that skill and knowledge of a language might not always go smoothly with skill and knowledge for using a language in real-time encounters.

### 1970s

This and other similar debates led to the evolution of the communicative approach, a pedagogical outcome stemming from speech act theory.<sup>8</sup> The new focus on communicative competence had a major impact on how certain foreign languages were taught in the 1970s. It gave rise to the closely linked situational approach,<sup>9</sup> and then the development of what was called the notional/functional approach.<sup>10</sup>

One major characteristic of this decade was the sharp move away from viewing foreign languages as a 'hard option beyond the reach of most young people on the grounds that they just wouldn't have the stamina or capacity to succeed'. Now languages had become a softer option in which 'getting things done with words' replaced the earlier primary focus on learning linguistic structures. This shift led to two key developments. Firstly, it opened up language learning to broader sections of the school-age

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<sup>8</sup> Speech act theory is a theory of language as action which focuses attention on doing things with

words or otherwise using language to get things done. Speech acts are linguistic expressions through which you can (for example) commit yourself to doing something (by, for example, promising), get someone else to do something (by using directives such as requests, proposals, giving orders) or actually perform some act (e.g. christening a baby, or making a formal announcement.).

<sup>9</sup> Essentially the situational approach was based on the premise that the language and activities in the language learning classroom would mirror the real world as closely as possible. You could see it as a shift from repeated drilling of a phrase like 'During the holidays of two weeks of my friend Masie' to asking in pairs questions like 'Excuse me, could you tell me the time?'

<sup>10</sup> Notional/functional syllabuses were described by Wilkins, D. in the article 'Grammatical, situational and notional syllabuses'. In Brumfit, C. & Johnson, K. 1979. *The Communicative Approach to Language Teaching*. Oxford: Oxford University Press.

population. Secondly, it resulted in application of an educational approach which combined focus on learning about a foreign language with learning by doing, namely learning through the use of a foreign language. However, within the constraints of formal language teaching it was later argued that much communicative language teaching actually failed to be communicative.<sup>11</sup> The major reason was that what was deemed communicative actually often lacked authenticity, and thus relevance.

It is perhaps coincidental, but the 1970s and 1980s showed not only increasing attention being given within language teaching circles on how we teach what we teach but also at the supra-national level. In other words, in this period both the language teaching profession, and political interest groups, were active in examining language policies and practice within the member states.

In June 1978, the European Commission made a proposal<sup>12</sup> that sought ‘to encourage teaching in schools through the medium of more than one language’. The same proposal also included comment on early language learning, mobility of pupils, and the teaching of foreign languages to less able students in addition to adults in vocational education. Most of these issues would have run directly counter to the orientation of ‘hard option’ practitioners of two decades earlier. In February 1983, the European Parliament tabled a Resolution<sup>13</sup> which called for the European Commission to ‘forward a new programme to improve foreign language teaching’, which was followed by the European Council (Stuttgart) referring to the ‘need to promote, encourage and facilitate the teaching of the languages of the Member States of the Community’.<sup>14</sup>

### 1980s

In April 1984, the European Parliament issued a Resolution<sup>15</sup> asking for ‘measures promoting the use of Community languages to be encouraged’, and in June of that year the Education Council concluded that there was a need to ‘give fresh impetus to the teaching and learning of foreign languages’.

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<sup>11</sup> See, for example, Nunan 1987:144. Communicative Language Teaching: making it work. English Language Teaching Journal 41.

<sup>12</sup> European Commission 14 June 1978 Proposal

<sup>13</sup> European Parliament 11 February 1983 Resolution

<sup>14</sup> European Council, Stuttgart 1983

<sup>15</sup> European Parliament 13 April 1984 Resolution

Meanwhile, the foreign language teaching profession, now fully engaged in trying to achieve communicative language teaching outcomes, where possible, was beginning to talk of different types of competence in language learning. In other words, successful foreign language learning was not just being viewed in terms of achieving a high level of fluency, but also in relation to learning some partial competence linked to active use of the language. This revised perspective on the core value of language learning could be viewed as culminating in the 2001 production of the Common European Framework of Reference for Languages Learning, Teaching, Assessment,<sup>16</sup> and the European Language Portfolio.<sup>17</sup>

In April 1985 the European Council<sup>18</sup> noted the importance of ‘acquisition by its citizens of a practical knowledge of other Community languages’ and argued that this should be ‘encouraged from an early age’. At the same time it recommended that a maximum number of pupils should learn ‘two foreign languages and should have the opportunity to take part in exchanges’. In September 1985, the Education Council<sup>19</sup> again reported the need to ‘take measures to promote the teaching of foreign languages’.

To teach more foreign languages to more young people, and to take into account the importance of giving these learners some skill in being able to use these languages, brings us back to the issue of implementation, how can this be done in practice? Although it was possible to promote and provide support for the upgrading of the foreign language teaching profession such as through specific supra-national European declarations dated 1976, 1978, 1983, 1984, 1985 and beyond, problems of practical implementation continued to exist. For example, the limited number of hours available for foreign language teaching in any national educational system or level, the costs involved in upgrading of teachers, or sophisticated curriculum development, could only have a limited impact in terms of achieving the goals and visions inherent in the supra-national discourse of the time.

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<sup>16</sup> (EN) Cambridge University Press 2001; (FR) Editions Didier: cadre européen commun de référence: apprendre, enseigner, évaluer; (DE) Langenscheidt: Gemeinsamer europäischer Referenzrahmen für Sprachen: lernen, lehren und beurteilen.

<sup>17</sup> Piloted 1998-2000, publication in separate member states ongoing 2001-2002

<sup>18</sup> European Council, Milan 1985

<sup>19</sup> Education Council, 27 September 1985

Put simply, to convert the vision and rhetoric on linguistic and cultural diversity into practical action, an extra means of delivery would need to be found which would complement existing language teaching, yet enhance the scope and breadth of language learning.<sup>20</sup>

### 1990s to the present day

One could argue that the immediacy and relevance of identifying and implementing such extra means of delivery can be seen in European Union documentation from 1988-2002. In 1988, The Education Council<sup>21</sup> and European Parliament<sup>22</sup> produced several statements on languages, specifically with regard to the teaching of foreign languages from an early age, and student/teacher exchanges. By definition, much introduction of foreign languages to early learners would require combining the teaching of non-language content and language because of the structure and nature of pre-school and primary level schooling.

In 1989, the Lingua programme was adopted,<sup>23</sup> followed by Leonardo da Vinci in 1994<sup>24</sup> and Socrates<sup>25</sup> in 1995. All of these frameworks supported to a greater or lesser extent, initiatives leading to pragmatic outcomes for issues pertaining to language teaching and learning. The Council of Education Ministers Resolution of 1995<sup>26</sup> states the need for citizens to 'acquire and keep up their ability to communicate in at least two community languages in addition to their mother tongue'. In so doing it follows an earlier draft resolution<sup>27</sup> mentioning, in the context of promoting innovative methods in schools and universities, the teaching of subjects other than languages in foreign languages. It also explicitly refers to Content and Language Integrated Learning (CLIL),

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<sup>20</sup> Discussed in Marsh, D. 2000. Content and Language Integrated Learning (CLIL): Development Potential 2000-2010, Finnish EU Presidency Conference report, Language Learning and Cross-border Cooperation, Helsinki: National Board of Education.

<sup>21</sup> Education Council 1988 on 'teaching of foreign languages'

<sup>22</sup> European Parliament 1988 Resolution

<sup>23</sup> European Council 28 July 1989

<sup>24</sup> European Parliament 6 December 1994

<sup>25</sup> European Parliament 14 March 1995

<sup>26</sup> Council of Education Ministers Resolution 31 March 1995

<sup>27</sup> Draft Resolution, Presidency to Education Committee 6 January 1995

and links to the Maastricht Treaty of 1992 which includes comment on the significance of enhancing linguistic diversity and languages education.

The 1995 White Paper (Teaching and Learning – Towards the Learning Society) notes the significance of greater flexibility in ‘the development and purposes of education and the consequent transformation of methods and tools’<sup>28</sup> and observes that it ‘is desirable for foreign language learning to start at pre-school level. It seems essential for such teaching to be placed on a systematic footing in primary education, with the learning of a second community foreign language starting in secondary school. It could even be argued that secondary school pupils should study certain subjects in the first foreign language learned, as is the case in the European schools’.<sup>29</sup>

The 1996 Green Paper on mobility,<sup>30</sup> the 1997 Council of Education Ministers Resolution<sup>31</sup> on early learning and diversification of supply of languages, the European Council Presidency statement of 2000<sup>32</sup> on lifelong learning, and Council Resolution of December 2000<sup>33</sup> on the development of multilingualism, all indicate that this decade was characterized by discussion on how to harness education, and specifically the learning of languages, so as to support socio-economic goals and visions.

This 1990s also revealed increasing interest and attention being given to initiatives involving teaching and learning through a foreign language by professional groups in foreign languages education. Significantly this was also found amongst stakeholder groups such as parent-teacher associations, administrative bodies, non-language teaching groups, researchers and others. Within education and the teaching profession, it could be seen in increasingly inter-disciplinary cooperation between differing professional interest groups.

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<sup>28</sup> Teaching and Learning: Towards the Learning Society. 1996 White Paper. European Commission p. 43.

<sup>29</sup> Teaching and Learning: Towards the Learning Society. 1996 White Paper. European Commission p. 67.

<sup>30</sup> Education, Training Research. The Obstacles to Transnational Mobility Green Paper. European Commission 1996.

<sup>31</sup> Council of Education Ministers Resolution 16 December 1997

<sup>32</sup> Lisbon European Council Presidency Conclusions, March 2000.

<sup>33</sup> Council Resolution (representatives of the Governments of the member states) 14 December 2000



The European Commission was linked to many of these such as the first European Networks in Bilingual Education symposium in 1996,<sup>34</sup> closely followed by the founding of the EuroCLIC European Network in 1996,<sup>35</sup> the CeiLINK think tank of 1998,<sup>36</sup> a range of development project outcomes (Lingua Socrates) from 1997-2001,<sup>37</sup> including the launching of the CLIL Compendium in 2001.<sup>38</sup>

At the same time the Council of Europe was holding workshops both with and through the European Centre for Modern Languages (ECML, Graz) to examine the implications of the approach which it has referred to as 'bilingual education' and 'teaching non-language subjects through a foreign language'. This interest, corresponding closely in time to European Commission co-funded initiatives, although often differing in scope, resulted in the publication of a number of reports and publications from 1995-1998. Some of these were published by the Council for Cultural Cooperation (CDCC)<sup>39</sup> and others by the affiliated ECML.

These reports show a trend towards replacing the long-standing term bilingual education with other alternatives such as 'learning and teaching non-language subjects through a foreign language', and the increasingly adopted 'Content and Language Integrated Learning (CLIL)'.<sup>40</sup>

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<sup>34</sup> Reported in 1997, Buiteveld, A. Report on the Conference on European Networks in Bilingual Education, European Platform for Dutch Education, The Hague The symposium involved participants from 30 countries, and resulted in the founding of a European Network, EuroCLIC in 1997.

<sup>35</sup> From 1996-2002 EuroCLIC has seen exponential growth in membership. In 2002 this comprised 2000 addresses in 44 countries. There is a discernible interest by membership individuals and organisations in CLIL target languages other than English.

<sup>36</sup> Marsh, D. & Marsland, B. CLIL Initiatives for the Millennium. CEILINK: University of Jyväskylä, Finland. The CEILINK Think-Tank was held in Strasbourg, 9-10 October 1998 involving 54 key professionals from 17 European countries.

<sup>37</sup> A range of trans-national development projects were implemented on this field during the 1990s. BILD, DieSeLL, EuroCLIC, InterTalk, Tel2L, TL2L, (Socrates/Lingua) and VocTalk (Leonardo da Vinci)

<sup>38</sup> Published as Profiling European CLIL Classrooms, Marsh, D., Maljers, A. & Hartiala, A-K., for the European Year of Languages 2001. UniCOM: University of Jyväskylä, Finland.

<sup>39</sup> CDCC documents on this area include Workshop 12A (1993) Bilingual Education in Secondary Schools: Learning and teaching non-language subjects through a foreign language and a follow-up report with the same title called Workshop 12B (1996); Workshop 6B (1994) Learning to Learn Languages in Vocationally-oriented Education.

<sup>40</sup> ECML Workshops in 1995-1998 were Bilingual Schools in Europe, Bierbaumer et al (4/1995); The Implementation of Bilingual Streams in Ordinary Schools: Process and Procedures – Problems and Solutions, Fruhauf et al. (21/1996); Aspects of Teaching Methodology in Bilingual Classes at Secondary Levels, Camilleri et al (8/1997); Redefining Formal Foreign Language Instruction for a Bilingual Environment, Hellekjaer (8/1997); Teaching Methods for Foreign Languages in Border Areas, Raasch et al. (19/1997) and

In essence, the 1990s witnessed considerable discussion, innovation and experimentation on finding an extra means of language teaching and learning delivery at both socio-political and educational levels.

It could be argued, and has been in some publications, that if the prevailing educational philosophy of language teaching and learning in the 1950s was one of grammar-translation, then the 1960s could be classified as behaviourism<sup>41</sup>, and the 1970s as the decade of communication. In the 1980s we witnessed an extension of our understanding of the word ‘communication’ particularly through the research field of what came to be termed pragmatics,<sup>42</sup> and more specifically through discourse analysis. Pragmatics examines the study of the choices language users make, the constraints they encounter in using language in social interaction and the effects their use of language has on other participants in the act of communication<sup>43</sup>. Both of these have helped achieve greater understanding of cognition and language use that has further developed through the 1990s. The impact of pragmatics on offering even higher quality language teaching environments, both actual and potential, is considerable. One key reason relates to learner relevance because pragmatics casts light on how people use language in practice and gives insight into social and cultural aspects of discourse<sup>44</sup>. In terms of education and pedagogy, it can be argued that the 1990s was the decade in which teaching and learning through a foreign language was increasingly adopted as a platform for providing the sought for extra means of language teaching and learning delivery.<sup>45</sup>

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Content and Language Integration in Vocational and Professional Education, Marsh et al. (20/1997)

<sup>41</sup> As from B.F. Skinner (1930-1993)

<sup>42</sup> See, for example, Kasper, G & Blum-Kulka, S. 1993. *Interlanguage Pragmatics*. Oxford University Press.

<sup>43</sup> Quote from Kasper, G. 1996 *Can Pragmatic Competence be Taught?* Conference paper, AAAL, march 1996, which draws on earlier work by David Crystal 1985.

<sup>44</sup> See, for example, Piirainen-Marsh, A. 1987. *Empirical Pragmatics and Foreign language Use*. 17<sup>th</sup> Summer School of Applied Language Studies, SOLKI: University of Jyväskylä.

<sup>45</sup> See, for example, Kolodziejska, E & Simpson, S. (2000) *Language Across the Curriculum*, ECML, Graz, Austria or Marsh (1999) *CLIL: Development Potential 2000-2010*. Language Learning & Cross-border Cooperation, EU Presidency seminar, National Board of Education, Helsinki, Finland

**Teaching Non-language Subjects Through a Foreign Language:****Introduction and application of diverse terms**

A key issue when looking at the period 1950-2000 is to determine if ‘teaching and learning through a foreign language’ would entrench itself beyond a decade of increasing attention during the 1990s into a serious proposition for improving delivery of opportunities for language learning in the following years.<sup>46</sup>

Thus, if the decades of the last fifty years can be labelled according to 10 year cycles, and if the 1990s was the decade of teaching and learning through a foreign language, then is this particular approach sustainable, or is it merely another developmental post which is shortly to be superseded by an alternative?

In order to start addressing this question, it is important to examine the terms used in the field for situations in which ‘a modern foreign language is used as the language of instruction in a subject other than language teaching itself’.<sup>47</sup>

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<sup>46</sup> In December 2000 a Council Resolution stressed that to be able to ‘work in a multilingual environment (is) essential to the competitiveness of the European economy’. The Council of the European Union’s Resolution on the promotion of linguistic diversity and language learning on the framework of the implementation of the objectives of the European Year of Languages 2001 (Brussels 10 January 2002) includes an invitation to member states to ‘take measures they deem appropriate to offer pupils, as far as possible, the opportunity to learn two, or where appropriate, more languages in addition to their mother tongues, and to promote the learning of foreign languages by others in the context of lifelong learning, taking into account the diverse needs of the target public and the importance of providing equal access to learning opportunities’. This reiterates the socio-political goals for language teaching and learning increasingly seen through the 1990s. The Resolution also comments that member states should consider how ‘to promote the application of innovative pedagogical methods, in particular also through teacher training’.

Hugo Baetens Beardsmore notes ‘The nineties have witnessed such a breakdown of resistance and prejudice towards bilingual education in Europe that the momentum of change in classroom language provision is likely to outstrip supply. It is as if the cumulative effect of long-term research on bilingual development through schooling, together with increased media access and human mobility, have combined to revitalize the faith in alternative paths to high levels of multilingual proficiency. This mushrooming towards fundamental changes in classroom-based multilingual development which reflects both an emancipation from the exemplary Canadian pioneering work on immersion, and a sophisticated adaptation of educational policy and practice to existing challenges’. Source: Bilingual Education in Secondary Schools: learning and teaching non-language subjects through a foreign language. Workshop 12A: Council of Europe.

<sup>47</sup> Fruhauf, G. et al. 1996. Teaching Content in a Foreign Language, Practice and Perspectives in European Bilingual Education, European Platform for Dutch Education, The Hague, p.7.

In education, especially when examining trans-national trends, it can be difficult to link any specific term with any specific movement, group, or locality. Regardless, for the purposes here this is neither appropriate nor relevant. However, it is interesting to examine how the terms introduced and used have surfaced and evolved over recent decades. This is because by doing so, it is possible to exemplify how the approach itself has evolved and been adapted to the needs of the societies involved.

### Mainstreaming

A single key issue relates to mainstreaming of the approach. From the 1980s onwards, the idea of teaching through a foreign language had been increasingly considered in terms of mainstream, ordinary government-supported schools, which may or may not be located in environments which have special linguistic features (such as border regions, bi- or trilingual areas). Europe has had special schools in various capital cities for many years which immersed learners so heavily into the target foreign language that most could be expected to reach high levels of bilingual fluency either during or at the end of their studies. These schools (usually teaching through English, French, or German language) have been in existence long before the advent of what is termed the European Schools.

Both types have existed to serve very specific target groups for equally specific reasons. The idea of seeking out and defining the added value resulting from exposure to this experience of learning through a foreign language led interest groups to see if this exclusive experience could be implemented in 'ordinary' schools.

This resulted in a problem arising with terminology. The standard established term bilingual education was largely appropriate for certain rather special types of school. But its usefulness became questionable when applied to mainstream environments.

### Bilingual Education

The term 'bilingual education' presupposes that the learners are, or will become, bilingual. Bilingualism is often associated with children who are brought up in bilingual families, and its use is often linked to speakers of languages belonging to linguistic

minority groups who are in the process of being integrated into a wider linguistic environment.

Perhaps the easiest and least controversial way to define bilingual is to explain it in terms of equilingualism. An equilingual is a person who is equally competent in two languages. This is a popular understanding of the word bilingual and is a key issue if one is to use a term like bilingual education with the parents, young people and other stakeholders who represent the public at large.

Essentially, if the term is used in education it raises expectations that the outcome of this educational experience will be that students will attain 'balanced' or near-equal capabilities in two languages.

However, in academic and scientific circles, the word bilingual is viewed as a much more complex phenomenon, and in addition, it should be noted that there are rather polarized views on what does or does not constitute bilingualism. It is worth noting these because if a term is contentious and controversial, then its use in different contexts can lead to even greater acrimony and fractionalism. However, it should be stressed that controversy, and the debate it arises over a term as important and misunderstood as this one, is an essential part of leading towards greater understanding of the phenomenon in question. This, in turn, can ultimately benefit those involved, and the specific society at large.

Baker & Prys Jones<sup>48</sup> discuss some of the questions which have to be addressed when using the term bilingual. These are as follows; 'Is bilingualism measured by how fluent people are in two languages? Do bilinguals have to be as competent in each of their two languages as monolingual speakers? If someone is considerably less fluent in one language than the other, should that person be classed as bilingual? Are bilinguals only those persons who have more or less equal competence in both languages? Is ability in the two languages the only criterion for assessing bilingualism, or should the use of two languages also be considered? For instance, a person who speaks a second language fluently but rarely uses it may be classed as bilingual. What about the person who does not speak a second language fluently but makes regular use of it? What

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<sup>48</sup> Baker, C. Prys Jones, S. 1998:2 Encyclopedia of Bilingualism and Bilingual Education. Multilingual Matters: Clevedon, UK

about a person who can understand a second language perfectly but cannot speak it? What about a person who can speak a second language but is not literate in it? Is bilingual a label people give themselves? Is bilingualism a state that changes or varies over time and according to circumstances? Can a person be more or less bilingual?’

One single, major problem with this term has been that mainstream education could very rarely achieve high levels of bilingualism through application of the approach. Firstly, it would have been out of scope in terms of resources and other aspects of implementation. Secondly, although there is considerable methodological overlap, teaching children whose linguistic background is in a minority non-European language was considered different to teaching ‘majority linguistic children in a modern foreign language, in a situation in which they also usually receive formal teaching of the language in question and in which the pupil’s mother tongue is the dominant language of the country or community in which s/he lives’.<sup>49</sup>

### **Immersion Bilingual Education**

In the 1970s and 1980s the term immersion was increasingly adopted and used parallel with, or instead of, bilingual education. Consisting of three types, namely early total immersion, early partial immersion and late immersion, immersion bilingual education was started in Canada in 1965. This happened largely because of the emergence of a parental grassroots movement focussed on providing English-speaking children new ways to learn French.

The term immersion soon evolved into a generic ‘umbrella’ term covering key characteristics of the school population such as early, middle or late in terms of age, in addition to total and partial with regard to exposure to the target language.

What is important about the influence of Canadian immersion on Europe was that since the 1960s huge numbers of young people have passed through the immersion

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<sup>49</sup> See, for example, Nikula, T. (1997) *Terminological Considerations in Teaching Content through a Foreign Language* in Marsh et al. *Aspects of Implementing Plurilingual Education*. University of Jyväskylä, Finland; and Fruhauf, G. (1997) *Implementation of Bilingual Streams in Ordinary Schools*, ECML: Council of Europe.

experience with a correspondingly large amount of research<sup>50</sup> carried out to validate good practice and identify malfunction. As of 1998, some 300 000 children per year were reportedly undergoing some form of immersion in the country.<sup>51</sup>

During the 1970s and 1980s as news spread of this apparently successful and rather remarkable large-scale and highly innovative language learning project from Canada to Europe, interest groups started to search for ways of replicating what was happening in Canada into schools in Europe.

What has clearly been hugely successful and popular in Canada however does not necessarily transpose easily into European contexts. For instance, there is evidence that immersion bilingual education is successful for majority language speakers much more than for those with a minority language background.<sup>52</sup> This alone would make the approach problematic as regards introduction in certain European contexts.

Briefly, the Canadian context, unique as most contexts are, allowed immersion to flourish in an environment in which certain situational and operational variables<sup>53</sup> were fairly constant. This was particularly the case in terms of pedagogical doctrine, supply of bilingual teachers, homogeneity of language starting levels and socio-economic status of children. The fact that schools could offer it but always with the proviso that participation was optional, and that it was originally a grassroots movement led by parents and some teachers are also key developmental factors. The combination of

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<sup>50</sup> There have been some 1 000 key studies published to date. See, for example, Genesee, F. 1987 *Learning through Two Languages*. Cambridge MA: Newbury House; or Swain, M. & Lapkin, S. 1982 *Evaluating Bilingual Education: A Canadian Case Study*. Clevedon: Multilingual Matters, UK.

<sup>51</sup> See Cummins, J. 1991. *The politics of paranoia: reflections on the bilingual education debate*. In O. García (ed.) *Bilingual Education: Focusschrift in Honor of Joshua. A. Fishman*. Amsterdam-Philadelphia: Benjamins 183-199. Also more recently cited in Baker, C. & Prys Jones S. 1998:49, *Encyclopedia of Bilingualism and Bilingual Education*. Clevedon: Multilingual Matters, UK .

<sup>52</sup> One early reference here is Hernandez.Chavez, E. 1984. *The Inadequacy of English Immersion Education as an Educational Approach for Language Minority Students in the United States*. *Studies in Immersion Education – A Collection for United States Educators*, Los Angeles, Evaluation, Dissemination and Assessment Center, 144-183. This apparent weakness of immersion bilingual education has also been taken up by others such as Baetens Beardsmore (1997) *Manipulating the Variables in Bilingual Education*, *European Networks in Bilingual Education Forum*, *European Platform for Dutch Education*, *The Netherlands*. p. 8-16.

<sup>53</sup> Originally discussed in Spolsky, Green & Read 1974. *A Model for the Description, Analysis and Evaluation of Bilingual Education*. Navajo Reading Study Progress Report 23, Albuquerque, University of New Mexico as situational, operational and outcomes.

these factors allowed it to become an educational movement in its own right which resulted in teachers, parents, and young people themselves becoming convinced of its merits and thus committed to seeking quality outcomes. Such specific and positive variables in Canada meant that any application of the approach in an alternative setting would require adaptation, which might at times have been quite considerable.<sup>54</sup> This issue of adapting what appeared to work in one setting to another invited the development of alternative terms for the approach.

What is of crucial significance is that immersion bilingual education in Canada helped develop awareness of the importance of a range of methodological factors that need to be cultivated in order to achieve overall operational success. Immersion bilingual education was thus an educational approach that embraced a methodological perspective.

In Europe, in the 1970s, as in the present day, there are examples of the language of instruction being changed with little or no regard for corresponding methodological shift. In other words, the question arose whether or not it was possible to change the language of instruction without adapting how you teach what you teach. The recognition of this issue, led to import of the terminology from Canada and yet sometimes limited import of the core ideas which have led to it being so successful in that given country. In turn, this led to interest groups moving away from the term altogether or adapting it through introduction of variants such as language bath or language shower.

Essentially, within Europe, the terms immersion bilingual education and bilingual education lost their way in the 1980s in particular because they were used to label experiments, however good, which often bore little relationship to the Canadian pioneering work. There are exceptions but these are relatively limited in scope. And as we have noted the reason for this was often due to the situational and operational variables being so different or otherwise not considered.

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<sup>54</sup> See, for example, Hugo Baetens Beardsmore 1993. *Bilingual Learning: Institutional Frameworks and Whole School Policies*. Language Learning for European Citizenship. Workshop 12A, Council of Europe CC-LANG (93).



Recognition that Europe is not Canada, not as a whole, or even in terms of most regions, led to a seeking out for alternative terms by which to continue dialogue and experimentation of this educational approach by which children, young people and adults would learn non-language subjects through a modern foreign language. This may have been one reason why we saw a plethora of terms being adopted, introduced and fielded during the 1980s and early 1990s.

**Inter-linked Terms**

In the 1980s and 1990s, particularly where older learners (often secondary level) were being introduced to the teaching and learning through a second/foreign language, a host of terms appeared in usage. Some examples are as below:

Bilingual education

Bilingual nursery education

Bilingual instruction

Content-based language teaching

Content-based second language instruction

Developmental bilingual education

Dual-focussed language education

Dual language bilingual education

Dual majority language bilingual education

Language maintenance bilingual education

Extended Language Instruction

Immersion

Languages across the curriculum

Language-based content teaching

Language bath

Language-enhanced content teaching

Language-enriched education

Language-enriched content instruction

Language maintenance bilingual education

Language shower

Late partial bilingual programme

Learning through an additional language

Learning with languages

Mainstream bilingual education

Modern Languages Across the Curriculum

Multilingual education

Plurilingual education

Sheltered language learning

Teaching through a foreign language

Teaching non-language subjects through a foreign language

Transitional Bilingual Education

Two-way bilingual education

(Spanish/English/Finnish) as a language of instruction

Some of these are clearly variations of each other and may have originated without either foreign or heritage languages as a focal point. One example is Language Across the Curriculum that originally related to improving skills of English as a mother tongue or second language to British school children. Some were imported from abroad, particularly the USA, where they had been exclusively used for contexts in which minority language students acquire proficiency in a dominant target language.

They may have been introduced to represent two rather different types of learning goal, namely the learning of a foreign language or the learning of what may be termed a heritage language (generally denoting minority indigenous languages or in-migrant languages). Even though there is considerable overlap in methodologies, the teaching of, for example, French language to 12 year olds in Spain differs in situational and operational variables to the teaching of Greek language to Greek immigrants in Denmark, Arabic in France or Urdu in the United Kingdom. This difference was recognisable at a supra-national level<sup>55</sup> with the setting up of the Bureau for Lesser Used Languages (EBLUL) as an independent non-governmental organisation financed by the European Community as an institution of European interest. In addition, these differing perspectives could also be found in educational circles and soon respective terms were adopted by those interested in second or minority language teaching, and others by those involved with modern foreign languages.

### **Adoption of the term CLIL/EMILE**

Following initiatives in the Netherlands, supported by the European Commission, the European Network of Administrators, Researchers, and Practitioners, EuroCLIC, opted to adopt the term Content and Language Integrated Learning<sup>56</sup> (CLIL) as a generic

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<sup>55</sup> In the European Commission, The Bureau for Lesser Used Languages (EBLUL), which was set up in 1982, is an 'independent non-governmental organisation financed by the European Community as an institution of European interest'.

<http://europa.eu.int/comm/education/langmin/eblul.html>. The Mercator Information Network also exists as a result of Article 22 of the European Charter of Fundamental Rights which states that 'The Union respects cultural, religious and linguistic diversity' which, in turn led to the European Parliament adopting a series of resolutions on this issue. Within the European Commission the Directorate-General for Education and Culture deals directly with regional and minority languages in Europe, but not minority immigrant languages. began to emerge as a term for learning non-language content through a modern foreign language. In time it evolved into Modern Languages Across the Curriculum.

<sup>56</sup> The term CLIL was discussed in open forums by members of the EuroCLIC Network at the 1996 Forum for Mainstream Bilingual Education, Helsinki, Finland, and then adopted by a

umbrella term which would encompass any activity in which a foreign language is used as a tool in the learning of a non-language subject in which both language and the subject have a joint curricular role. The rendition of this term into French is *l'Enseignement d'une Matière par l'Intégration d'une Langue Etrangère (EMILE)*.<sup>57</sup> The acronym is increasingly produced simultaneously in English and French as CLIL/EMILE or vice-versa.

A core reason why term CLIL/EMILE was increasingly adopted through the 1990s was that it placed both language and non-language content on a form of continuum, without implying preference for one or the other. It was thus inclusive in explaining how a variety of methods could be used to give language and non-language subject matter a joint curricular role in the domain of mainstream education, pre-schooling and adult lifelong education. In the late 1990s, usage of the term soared as can be seen from publications references and Internet site usage.

In the fourth objective of the decision by the European Parliament and Council which lead to establishing the European Year of Languages 2001, the following was stated:

'To encourage the lifelong learning of languages, where appropriate, starting at pre-school and primary school age and related skills involving the use of languages for specific purposes, particularly in a professional context by all persons residing in the member states, whatever their age, background, social situation and previous educational experience and achievements'. In March 2000, the Presidency conclusions of the Lisbon Council argued for the modernisation of educational systems to allow

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group of specialists representing administration, research and practice in this field. Variants of the term linking content and language together had appeared in certain international publications earlier, notably in Short, D., Crandell, J. & Christian, D. (1987) *How to Integrate language and Content Instruction*, which itself was the result of a symposium at the University of California, Los Angeles with had input from a range of international academic figures. Later in 1991, the National Clearinghouse for Bilingual Education published *Integrating Language and Content Instruction: Strategies and Techniques* by Short, D. The reason why the EuroCLIC network representatives opted to adopt the term CLIL was that it placed both language and non-language content on a form of continuum, without implying preference for one of the other. Thus it was considered suitable as a generic term to bring together interest parties who were interested in the method from the point of view of either language development, or non-language subject development, or both. This term has been translated into French as follows:

*L'Enseignement d'une Matière par l'Intégration d'une Langue Etrangère (EMILE)*  
<sup>57</sup> For example, *L'Enseignement d'une Matière par l'Intégration d'une Langue Etrangère (EMILE)*, *Fremdsprache als Unterrichts- und Arbeitssprache (FAUA)*, *Apprendimento Linguistico Integrato – Content and Language Integrated Learning (ALI-CLIL)*, *Apprendizaje Integrado de Conocimientos Curriculares y Lengua Extranjera (AICLE)*, *Språk- och innehållintegrerad inlärning (SPRINT)*.

development in specific fields including ‘foreign’ language learning. In March 2001, this was reiterated by the European Council in Stockholm in terms principally of lifelong learning, in that foreign language learning must be improved for Europe to achieve its economic, cultural and social potential’.<sup>58</sup>

In March 2002 The Barcelona European Council<sup>59</sup> made a declaration on languages which stated that efforts should be made to ‘improve the mastery of basic skills, in particular by teaching at least two foreign languages from a very early age; and establishment of a linguistic indicator by 2003 alongside development of digital literacy’. This was also the point at which the European Commission’s 1+>2 formula was referred to<sup>60</sup> in addition to more specific information on the linguistic indicator in which it is suggested that students should aim to reach at least B2 on the Council of Europe’s Common Framework of Reference. In discussion on the Objectives Process Mackiewicz<sup>61</sup> comments ‘In the Union of the 21<sup>st</sup> century, people who do not know languages are in danger of becoming regarded as illiterate’. He also points out that new methods and ways of organising the teaching of languages, early language learning and ways of promoting the learning of languages are all included in the 2002 Barcelona Council’s conclusions. In 1996 Hugo Baetens Beardsmore observed that (CLIL/EMILE) is a ‘growth industry in educational linguistics’ and if we consider activities in Europe between 1996-2002, we see no sign of this growth slowing. On the contrary it appears to be accelerating, especially in certain types of environment. Early language learning, whether at kindergarten, pre-school or primary, inevitably involved forms of CLIL/EMILE. Recognition, possibly through the use of the envisaged linguistic indicator, of the importance and value of partial and specific types of competence (as in ‘you don’t have to be a diamond to shine’)<sup>62</sup> and computer literacy leading to Internet usage, both establish the use of a foreign language as a tool for achieving ends other

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<sup>58</sup> Quoted from secondary source: Mackiewicz, W. 2002. Lifelong Foreign Language Learning, speech at the Spanish presidency language seminar, Foreign Language Learning Needs in Education Systems, Valencia 5-7 May 2002. The European Council in Stockholm 2001 produced a report on the Concrete Future Objectives of Education and Training Systems which was a follow-up document to the Lisbon Council of 2000.

<sup>59</sup> Barcelona European Council No:100/02 15 & 16 March 2002

<sup>60</sup> :Mackiewicz, W. 2002. Lifelong Foreign Language Learning, speech at the Spanish presidency language seminar, Foreign Language Learning Needs in Education Systems, Valencia 5-7 May 2002

<sup>61</sup> Mackiewicz, W. 2002. as above

<sup>62</sup> Quote from a CLIL teacher during a research interview. In Marsh, D., Marsland, B. Stenberg, K. 2001. Integrating Competencies for Working Life, UniCOM: University of Jyväskylä.

than language learning itself. In other words now in 2002, the arguments for solutions such as those offered by CLIL/EMILE are stronger than ever before because, ultimately, there is little choice unless language teaching is massively reformed and expanded, or the role of ICT takes on extraordinary proportions in terms of language teaching across populations from pre-school<sup>63</sup> through to adulthood.– neither of which are likely.

It is precisely because it continues to be a growth industry that CLIL faces both opportunities and threats. Without wishing to resort to undue use of clichés here, we live in a fast moving period of European history, a period in which opportunities, fashions and consensus views appear and disappear; a period in which it is often those who are at the cutting edge who have the opportunity to ‘seize the moment’. Yet those at the cutting edge are not always those who are best placed, equipped or able to make the best decisions, especially when growth can be read as an opportunity for commercial gain or political advantage.

Although it is possible, as we have done here, to suggest that the development of European integration can be matched with the development of language teaching and learning, in the late 1990s we have also seen other influences affect how we ‘deliver and evoke’ education. One of these is the growing interest in the integration of subjects or themes around subjects. Another is use of the new technologies in providing platforms for learning. Yet another is renewed interest in interactional as opposed to transactional teaching methods.

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<sup>63</sup> The arguments for early language learning – if understood to involve children up to about 11 years (about the limit of the Critical Hypothesis Period) – as documented in, for example, Eurydice, *Foreign Language Teaching in Schools in Europe*, would require forms of CLIL/EMILE. The idea of teaching these age groups through a more formalist structural method is highly questionable in terms of good teaching practice. It is also questionable in terms of impact as commented on by Munoz, C. and quoted in the media as "Un estudio revela que es mejor empezar a aprender idiomas a los 11 años que a los 8" *La Vanguardia*, Barcelona, May 11, 2002: 30 Aunque adelantar la edad de enseñanza no mejora los resultados académicos, ayuda a la predisposición del alumno con el idioma. - Los niños que se inician en el estudio de una lengua extranjera a los once años obtienen mejores resultados que quienes empiezan a estudiarla a los ocho, según una investigación llevada a cabo por especialistas de la Universitat de Barcelona (UB). El estudio sugiere que adelantar la enseñanza de un idioma en la escuela no es imprescindible para su mejor conocimiento. En la actualidad, los alumnos españoles empiezan a estudiar inglés a los ocho años, cuando cursan tercero de primaria, aunque la ley de Calidad rebaja esta edad a los seis. The research findings will be published at a later date.

Clearly there is a prevailing view that some subjects should not be compartmentalized within a curriculum. The interest in CLIL/EMILE can be viewed as one part of this movement because integration is often connected to the notion of relevance because without relevance it can be hard to achieve meaningful learning. This is particularly true with learners of languages who 'far too rarely experience their linguistic skills, however limited these may be, as something relevant'<sup>64</sup> Now that the notion of curricular integration is being actively discussed and implemented, and that the new technologies are increasingly accessible to learners, younger and older alike, there are some who view CLIL/EMILE not so much as an option, but as a pragmatic necessity for the world in which we live.

Application of this approach could, it is argued, help move towards the European Council's target of making European education and training systems a world reference in terms of quality by the year 2010, on the basis of three fundamental principles: improving quality, providing universal access and opening up to a world dimension.<sup>65</sup> Experience of CLIL/EMILE in Europe supports the arguments put forwards in the early 1990s<sup>66</sup> whereby the approach was theoretically justified because

- ◆ Traditional methods for teaching second languages often disassociate learning from cognitive or academic development
- ◆ Language is learned most effectively for communication in meaningful, purposeful, social and academic contexts
- ◆ Integration of language and content provides a substantive basis for language teaching and learning: content can provide a motivational and cognitive basis for language learning since it is interesting and of some value to the learner
- ◆ The language of different subject areas is characterized by specific genres or registers which may be a prerequisite of specific content or to academic development in general

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<sup>64</sup> Mackiewicz, W. 2002. as above

<sup>65</sup> Taken from Base Document of Spanish presidency language seminar, Foreign Language Learning Needs in Education Systems, Valencia 5-7 May 2002, referring to Barcelona Council (March 2002) on Detailed Programme of Work until 2010.

<sup>66</sup> Snow, Met & Genesee (1992) as above

**CHAPTER 2 :CLIL/EMILE IN EUROPE: Dimensions 2000 - 2002****Synopsis**

European CLIL/EMILE is multi-faceted across the whole educational spectrum from pre-school through to adult education. It is a dual-focused methodological approach that embraces both language and non-language content, focusing mainly on 'meaning'. It differs from other approaches that predominantly focus on 'form'. Thus there are as many types, as reasons, for delivery. These hinge on cultural, environmental, linguistic, non-language content and learning objectives.

It is too early to show evidence that theoretical justification for many types of CLIL/EMILE is watertight. Some types have been more researched than others but findings that are available are generally positive. In addition to research from within Europe, there is much important evidence from other countries elsewhere. The rather recent introduction of the approach into mainstream education means that it will take some years for a sufficient body of research to be established. The main research issues concern types of methods, types of learner, age, level of exposure, impact on first language, choice of target language and subjects, learner and teacher competencies, quality assurance and environments. Overall, there are convincing signs that CLIL/EMILE can be successful for a broad range of learners and that small-scale applications, appropriately delivered, can be successful in achieving specific outcomes. One of the key issues is the role of CLIL/EMILE as an enabler – as in an educational experience that enables learners to learn how to learn.

**Reasons for European CLIL/EMILE Delivery**

There are a wide variety of reasons why CLIL/EMILE is introduced across Europe from kindergarten to adult education.<sup>67</sup> These have been described in terms of dimensions (the major reasons) and focuses (the sub-reasons). There is often considerable overlap between both dimensions and focuses within any given school or curriculum. This overlap directly reflects both the interdisciplinarity of CLIL/EMILE and the extent to which it is multi-faceted. Thus, for case x, the predominant reason for introduction may be linked to learning a language. In case y, the predominant reason will be on the non-language content. However, in case z, there may be one of a number of alternative

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<sup>67</sup> These have been outlined in Marsh, D., Maljers, A. & Hartiala, A-K, 2001, Profiling European CLIL Classrooms, UniCOM, University of Jyväskylä, Finland. This publication was produced as a result of the Lingua supported 2000-2001 CLIL COMPENDIUM project.



reasons such as influencing attitudes, increasing overall learner motivation, enhancing school profile, or even changing how we teach what we teach in a given school.

CLIL/EMILE can act as a platform by which to achieve a range of outcomes, but there is one core characteristic which is described as follows 'the most important point to be underlined in plurilingual programmes is that the major concern is about education, not about becoming bi- or multilingual, and that the multiple language proficiency is the added value which can be obtained, at no cost to other skills and knowledge, if properly designed' (Hugo Baetens Beardsmore).<sup>68</sup> This follows the line adopted elsewhere that if bilingual education is to take root then it 'must justify itself philosophically as education' (Fishman).<sup>69</sup>

These arguments can be substantiated when we examine the reasons why CLIL/EMILE is implemented across Europe because whereas enhanced language development is nearly always a key factor it is only one in this form of dual-focused education.

This is a major strength and yet it is a strength that exposes the vulnerability of this approach, particularly during any experimental or introductory phases. CLIL/EMILE opens up means by which to re-think how and when we teach certain types of subject matter, and language, and this requires adopting an inter-disciplinary mindset within the educational profession.

Some of the strongest critics of this type of approach can be seen anchoring their arguments in terms of professional and cultural territorialisation. Equally, some of the strongest advocates are those that specifically want to break down certain professional and educational barriers because of the language-enriched educational gains that they consider attainable.

CLIL/EMILE, in some of its best practice, invariably goes beyond language teaching and learning. It has become an innovative educational approach, which is increasingly

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<sup>68</sup>Hugo Baetens Beardsmore (1999) *La Consolidation des Expériences en Éducation Plurilingue / Consolidating Experience in Plurilingual Education*. In Marsh, D. & Marsland, B. 1999. *CLIL Initiatives for the Millennium*, UniCOM, University of Jyväskylä, Finland.

<sup>69</sup> Fishman, J. 1989. *Language and Ethnicity in Minority Sociolinguistic Perspective*. p. 447. Clevedon: Multilingual Matters, UK.

taking on a distinct European characteristic, and which carries methodology as its hallmark. It's introduction is essentially a socio-pedagogical issue because unlike commonly found top-down developments within education, the driving force for CLIL/EMILE is often at the grassroots and with socio-economic stakeholders.

Since the 1990s, Europe amongst other continents, has witnessed a knowledge revolution in education resulting mainly from increasingly widespread access to the Internet and the new technologies.<sup>70</sup> Some would argue that one effect of this on young people concerns the purposiveness of education and an increasing reluctance to postpone gratification.<sup>71</sup> Teachers and others argue that some students are no longer willing to learn now for use later, which is a form of deferred purpose, but prefer to learn as you use and use as you learn which suits the immediacy of purpose common to the times. One of the success factors reported of CLIL/EMILE is the immediacy of purpose which is positively acknowledged by young people.

To show the breadth of European CLIL/EMILE delivery, five major reasons, and eighteen sub-reasons, have been identified<sup>72</sup> which are linked to learning and development outcomes relating to culture, environment, language, content and learning. These are now briefly summarized below:<sup>73</sup>

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<sup>70</sup> In the Scandinavian case studies rates of access to the Internet at home are about 80% and still forecast to increase.

<sup>71</sup> A concept drawn from sociology which has been used to explain youth behaviour and attitudes

<sup>72</sup> [www.clilcompendium.com](http://www.clilcompendium.com)

<sup>73</sup> Adapted from Marsh, D. 2002, Facing Change – Language Teachers as Mediators: Curricular Integration of Foreign Language Teaching, MillenniLang, University of Lisbon, Portugal.

## 1. The Culture Dimension

### **Building intercultural knowledge & understanding**

There are many ways in which ‘intercultural knowledge and understanding’ can be learnt in schools. One problem has been related to the impact of this type of education because transforming knowledge into understanding often needs to be <sup>74</sup>realised through experiential methods. CLIL/EMILE has been identified as one way to achieve positive results in this respect because language can be used as a means for showing similarities and differences between people of different backgrounds.

### **Developing intercultural communication skills**

The development of intercultural knowledge and understanding is closely linked to the capacity for language and use of communication skills. These skills are about how we use language in intercultural situations. One reason why this is a popular focus in CLIL/EMILE relates to individual learning styles and strategies. Put simply, some people learn effectively, or otherwise can develop an appetite for language learning, if given broader opportunities to learn by doing.

### **Learning about specific neighbouring countries/regions and/or minority groups**

In Europe there are both macro and micro integration processes running simultaneously. One involves the integration of nation states within Europe. The other involves increased contact between regions and communities. For example in the last decade some borders have changed radically which has directly impacted on the lives and aspirations of citizens. This has led to a need,

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<sup>74</sup> Argued by Ann Carlsson (Ericsson) Skolverket SPRINT meeting, 1998. Discussion on deferred and immediate purposes can be found in Johns, T. & Davies, F. Text as a vehicle for Information: The classroom use of written texts in teaching reading in a foreign language, Reading in a Foreign language, Vol.1, March 1983, pp.1-19.

in some environments, to actively teach about neighbouring countries, or, in some cases, minority groups residing within the learner's own country. CLIL/EMILE is used as a tool to facilitate this type of learning.

### **Introducing the wider cultural context**

Terms such as enculturation, acculturation, cultural adaptation and others have been used over the years to refer to a situation in which trans-migrant individuals learn to live in a different society to that of their early years or their forebears. CLIL/EMILE can be used to facilitate such processes of cultural/linguistic adaptation.

## **2. The Environment Dimension**

### **Preparing for internationalisation, specifically EU integration**

European Integration and global internationalisation have had an impact on environments ranging from those of the nation, through to regions and schools. Just as local employers may be requiring different skills now from the past, so we find that opportunities for funding, particularly from EU sources, are now increasingly available for young people. CLIL/EMILE may be used for such preparation, particularly with older learners. Indeed, the trans-national dynamic of the non-language subject content can, in turn, be used as a reason for the introduction of this approach.

### **Accessing International Certification**

Different types of certification exist throughout Europe. Some of these relate to overall educational achievement such as the International Baccalaureate. Others are more specifically linked to language competence through national

organizations but offered to individuals in different countries (e.g. University of Cambridge Local Examinations Syndicate, Alliance Francais, Goethe-Institut). Some schools prepare learners for these types of certification through CLIL/EMILE so as to make them linguistically prepared to take up their rights.<sup>75</sup>

### **Enhancing school profile**

Some schools have come under great pressure to adapt to socio-economic forces, both positive and negative, in recent years. This situation is sometimes complicated further in the increasing use of criteria-based evaluation systems by which the performance of schools is judged. This affects some national educational systems much more than others, but it appears to be a truism that schools are increasingly being subjected to similar market pressures such as those typical to the private sector. This results in schools looking for new means such as CLIL/EMILE by which to enhance their profiles.

## **3. The Language Dimension**

### **Improving overall target language competence**

Historically this has been one of the most common reasons for the introduction of CLIL/EMILE. It stresses language competence in general and therefore includes reading, writing, speaking and listening skills.

### **Developing oral communication skills**

This is a very common aim within CLIL/EMILE where one part of overall language competence is given special importance. It may arise from the notion of having knowledge of a language, but not being able to actually use the

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<sup>75</sup> Quotation from InterTalk 1997. (Willy Beck), University of Jyväskylä, Finland

language in real-life situations. In Europe, communication channels, from face-to-face to e-mail, have become increasingly important as mobility, both virtual and physical, has increased. Much communication, even in written form through information and communication technology modes, requires the ability to use oral language effectively.

### **Deepening awareness of both mother tongue and target language**

There is a difference of opinion within certain circles, both research and educational, concerning the best conditions for learners to acquire additional languages. Equally, there is some dispute over the development of the first language in certain types of high exposure CLIL/EMILE situations. Depending on the age-range of the learners, some schools have developed language-sensitive curricula that cultivate both first and additional languages simultaneously.

### **Developing plurilingual interests and attitudes**

European countries differ considerably with respect to the ability of citizens to use languages other than the mother tongue. This is a reflection of not only language policy but also attitudes towards the relevance and importance of learning languages at the grassroots. Language policies and political rhetoric may influence attitudes towards language learning, but it is also increasingly grassroots opinion that is decisive. Such opinion is often based on peoples' perception of what is advantageous for young people and their future needs. A critical factor here relates to whether people believe that European working life communication will be increasingly dominated by one single language. There is opinion that a dominant 'lingua franca' type language such as English can be used, for example, to start CLIL/EMILE, but because the youngsters will pick English up anyway, other languages should be learnt using this approach. (It) builds the ability to learn other languages and this capacity is more

developed in the students who have studied in two languages (Hans-Ludwig Krechel).<sup>76</sup>

### **Introducing a target language**

This focus allows a school to introduce a language in a non-formal way that is often geared towards developing interest in further study. It can be found across the whole age range, and may even involve a language that is not usually taught in the school environment.

## **4. The Content Dimension**

### **Providing opportunities to study content through different perspectives**

Languages, and the cultures associated with them, sometimes reveal differing world-views that can be seen in the ways in which some content is taught. One obvious example lies with how educational curricula in different countries may describe shared historical events. However, traditions in the different disciplines can lead to significantly diverse ways of approaching and understanding similar phenomena. CLIL/EMILE enables learners to study through these different perspectives, which can lead to achieving a deeper understanding of the subject matter.

### **Accessing subject-specific target language terminology**

Some fields of learning have high-frequency international terminology that is not in the learners' first language(s). Using the target language through CLIL/EMILE helps learners to understand the subject and its core terminology.

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<sup>76</sup> Quotation from Intertalk 1997 (Hans-Ludwig Krechel) University of Jyväskylä, Finland.

In addition to content learning, it is also linked to preparing the learners for forms of mobility.

### **Preparing for future studies and/or working life**

There are many different situations in which learners need to develop their language capabilities for future studies and/or working life. Just as opportunities exist on a scale never seen before for young people to study in different countries within Europe, so we also see much workplace recruitment emphasising the need to be able to speak different languages. This focus is particularly important in activating interest in trans-national or cross-linguistic working life.

## **5. The Learning Dimension**

### **Complementing individual learning strategies**

Specifically geared to learner-based methodologies that attempt to improve learning by giving attention to individuals' needs in terms of social and thinking skills. One broad issue here relates to the performance of boys and girls in relation to successful language learning. It has been argued that there is a gender bias in some educational systems that might actually disadvantage certain groups of boys who may then become alienated within the foreign language learning process. Although this is a controversial issue, CLIL/EMILE does provide alternative ways of approaching language learning, and if this reduces exclusion or otherwise serves mainstream learners then it is clearly advantageous. We have evidence that it develops their analytic, reflective and



hypothesizing skills and all that encourages them to become much greater risk-takers in terms of their linguistic self-confidence (Do Coyle).<sup>77</sup>

### **Diversifying methods & forms of classroom practice**

It is obviously not necessary to change the language of instruction in order to diversify learning methods and classroom practice. However, the introduction of CLIL/EMILE, which is itself a set of methodologies, can act as a catalyst for change. In other words, its delivery can encourage careful analysis of existing methods and appropriate adaptation. What is characteristic of many CLIL/EMILE methodologies is the synergy resulting from communication orientation on the language, the content, and the interaction as it takes place within the classroom. This is because in types of dual-focused education all three of these play a pivotal role at some point or another. Recognition of the value of this type of broadly interactive methodology is one reason why teachers may adapt their methods. This approach is much more effective than traditional foreign language teaching (Dieter Wolff).<sup>78</sup>

### **Increasing learner motivation**

The development and nurturing of learner motivation is at the heart of all education. If CLIL/EMILE is specifically used to increase motivation then it usually involves low exposure programmes that aim to positively influence learner attitudes and self-confidence. Such programmes are often focused on providing non-threatening and supportive contexts where most or all of the learners feel comfortable with the classroom objectives. The whole process is relaxed and natural (Hugo Baetens Beardsmore).<sup>79</sup>

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<sup>77</sup> Quotation from InterTalk 1997 (Do Coyle), University of Jyväskylä, Finland.

<sup>78</sup> Quotation from InterTalk 1997. (Dieter Wolff), University of Jyväskylä, Finland.

<sup>79</sup> Quotation from InterTalk 1997 (Hugo Baetens Beardsmore), University of Jyväskylä, Finland

**THEORETICAL JUSTIFICATION, CONCERNS & DEBATE***Introduction*

The available evidence on forms of CLIL/EMILE needs to be evaluated in light of the many variables that are at play according to a myriad of differing types. The final verdict is not yet in and it will clearly take some time before a satisfactory profile of research into European CLIL/EMILE is available. There is, however, a voluminous amount of research on a wide range of differing situations which focus on learning through the medium of a second/foreign language, and an attempt will be made here to summarize a few of the key issues, some of which draw on experiences outside Europe. Others draw on examples of teaching and learning through the medium of a second/foreign language which do not resemble many forms of European CLIL/EMILE such as Canadian immersion. Although there may be substantial differences in application, there are some core methodological and theoretical issues that are very similar. At the end of the day much educational research is multi-faceted, just like classrooms, and the children in them, but there are some generalities worthy of observation and comment which interlink across contexts.

There are indications that an increasing research interest in European CLIL/EMILE is presently underway. Much anecdotal reporting, often by practitioners, or small research networks, has not been widely published. This is not to suggest that such practitioner or school-based reporting is not relevant and valid. On the contrary, it may well be so. Indeed there appears to be a wealth of experimentation, and small-scale enquiry, often in the case of monitoring contexts, action research and forms of reflective enquiry, which offer a rich source of information and data.

In recent years much available research has been rather positive about the impact of 'teaching through a second/foreign language'. It could be argued that in times gone by (when most available evidence on bilingual education was overwhelmingly negative, suggesting infamously that it would stunt intellectual agility) research was conducted for a specific socio-political agenda – such as the protection of unilingual models of education in the 1930s. If so, some might say that certain types of current CLIL/EMILE research is self-fulfilling in terms of justifying an approach which has become

increasingly under the spotlight even before Joshua Fishman's famous dictum 'bilingual education is good for education'.<sup>80</sup>

If we examine some of the strongest criticism of CLIL/EMILE, then it can be argued that the grounds for critique are not so much directed at the methodological potential of this approach for enriching education. Rather they may be seen to serve other less obvious purposes. One of these is the sometimes voiced view that CLIL/EMILE serves solely as a platform for strengthening the English language within the European educational systems. For instance, it has been argued that this would be to the detriment of national languages.<sup>81</sup> Some others might argue that by strengthening the English language in the curriculum through CLIL/EMILE, interest in the learning of other foreign languages diminishes.

Two important issues are raised when examining this type of argument.

Firstly, the reason for the argument may stem from political rather than research-based interests. In other words, the argument may be made for reasons that go beyond education. It is important to remember in the words of Hugo Baetens Beardsmore that 'research on bilingual development has frequently revealed counter-

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<sup>80</sup> Fishman, J. 1976:23 Bilingual education: An International Sociological Perspective. Rowley: Newbury House

<sup>81</sup> A recent example is from Sweden where the report *Mål i mun – ett handlingsprogram för svenska språket* (April 2002) published by a parliamentary committee (Kommittén för svenska språket), calls for new laws to ensure the primacy of Swedish language in the country. One feature of the report is the criticism it directs at CLIL/EMILE which is known as SPRINT in Swedish. It expresses some fear at the possible effects of this methodology on Swedish language. Interestingly reference to CLIL/EMILE is in terms of high exposure cases and criticism is directed at the lack of independent empirical research on its implementation. This is hardly a case of the methodology being erroneous, but rather the relative authorities not providing the impetus for such research to be conducted. Ironically, the report suggests the impairment of the first language, Swedish, in learners involved with CLIL/EMILE, yet, by default, ignores the existence of national tests in Swedish and the target language in question which are not cited as evidence of negative impact. The report implies that CLIL/EMILE is emerging as a force which replaces foreign language teaching. Yet this author knows of no serious cases where such a proposition would be given any credence, especially considering what is known, and well documented in Sweden about the importance of appropriate parallel language teaching for ensuring success. Finally, some of the severest criticism against SPRINT is based on evidence from North American immersion education which bears little reality to most CLIL/EMILE as implemented in the Swedish context. Such reporting is thus de-contextualised and does not do justice to the types of implementation which may well be bearing success and not threatening the national language in question. One commentator notes that it is indicative of a protectionist political springboard against the interventions of the EU. It is worth considering the quote by T.McArthur in *Comment: Worried about Something Else* 'unease about language is almost always symptomatic of a larger unease' (Marshall, D. (ed.) *International Journal of the Sociology of language*, vol. 60, 1986, p.7-75.

intuitive findings'.<sup>82</sup> There are clear indicators that CLIL/EMILE is increasingly being considered as a platform for introducing and enhancing languages other than English in Europe, alongside corresponding enrichment of education in a broader sense. For example if the threat of English is used as a sound-bite in certain circles, there are other potentially stronger forces, particularly at the grassroots, which may be saying 'my child will pick up English anyway, but I want them to be one step ahead and have another language'. Clarity of vision on the potential of CLIL/EMILE as an educational approach in its own right may be lost if it is caught up in the ongoing European lingua franca language debate. As yet there is insufficient evidence to substantiate this type of argument either way, but the debate can be both strong and based on intuition and not necessarily supported with facts. There is no a priori reason why English should be the main target language as European CLIL/EMILE develops across sectors.

Secondly, when criticism of CLIL/EMILE surfaces, it may portray a single type and ignore the variants. This type is likely to be high exposure to the target language over an extended number of years in a single language, English. These types do exist and sometimes for good or not so convincing reasons. But there are many other types of CLIL/EMILE delivery in Europe that do not fit such a category. It is these types which tend to show the innovativeness of this approach, and often have not been subject to intensive research in the past. It is some of these types that offer the most important potential for the future because in relation to some important targets which espouse plurilingualism, less exposure to CLIL/EMILE may be better than more.

Finally, a caveat needs to be introduced when we consider CLIL/EMILE and research. It relates to why we introduce this type of methodology in a given kindergarten, school, or through, for example, distance education for adults. Is it predominantly to introduce, teach, or otherwise develop the language? Is it to teach some non-language content with language as an added value? Is it to implement a set of educational methods that are considered successful in introducing, teaching and otherwise developing both? There is little doubt from what we know about European CLIL/EMILE that much delivery is focused on, in Fishman's terms, education and not just language.

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<sup>82</sup> Baetens Beardsmore, H. 1993. Report to the Ministry of Education of Brunei Darussalam on the Visits to Schools and Discussions with Ministry Officials. Bander Seri Begawan, Brunei Darussalam

Yet much research, from Europe or abroad, mainly Canada, focuses solely on the language dimension.<sup>83</sup>

...there currently exist a variety of L2 instructional approaches that integrate language and content instruction and these can be characterized as falling along a continuum from language-driven to content-driven. In language-driven approaches, content is used simply as a vehicle for teaching target language structures and skills. The primary goal of these programs is language learning.... At the other end of the continuum are approaches where the content and language are equally important so that mastery of academic objectives is considered as important as the development of proficiency in the target language. Bilingual/immersion education are examples of content-driven approaches.

(Fred Genesee)<sup>84</sup>

This quotation is particularly revealing because it shows the tendency towards language that much research espouses, particularly that from Northern America where many applications of ‘teaching through a second/foreign language’ differ considerably from the European experience of CLIL/EMILE.

The publication from which this quotation derives is predominantly about the ‘language’ aspect of what is termed bilingual education – indeed this is why it is to be produced (2003). Here and elsewhere language is widely viewed as the predominant *raison d’être* for teaching and learning through a foreign language. But in Europe we have seen that there are reasons other than language per se which predominate<sup>85</sup> and the term, enriched education, is clearly applicable to some contexts.

Note in the quotation above the following:

1. A variety of L2 instructional approaches

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<sup>83</sup> During the questionnaire retrieval process leading to compilation of the The CLIL Compendium, language was not as frequent a reason for implementing CLIL/EMILE as others such as developing intercultural understanding, influencing learner attitudes, or learning of certain types of non-language subject matter.

<sup>84</sup> Genesee, F. 2003 (forthcoming) What do we know about bilingual education for majority language students? In Bhatia, T.K. & Ritchie, W. (eds.) Handbook of Bilingualism and Multiculturalism. London: Blackwell

<sup>85</sup> Marsh, D., Maljers, A. & A. Hartiala (eds.) 2001. Profiling European CLIL Classrooms. UniCOM, University of Jyväskylä.

In European CLIL/EMILE some would argue that delivery is not part of L2 instruction

2. At the other end of the continuum are approaches where the content and language are equally important

In European CLIL/EMILE 'at the other end of the continuum' the non-language content is considerably more important than the language

3. Bilingual/immersion education are examples of content-driven approaches

CLIL/EMILE is not bilingual/immersion education per se, it is a rapidly developing dual-focussed educational approach which goes beyond what we have so often referred to as bilingual education in the past (see Chapter 1)<sup>86</sup>

In any review of research it is essential that we do not lose sight of the fact that the degree to which we can generalize findings from one situation to another is severely limited.

However, some research, whether conducted in Europe or beyond, does have bearing on the validity of CLIL/EMILE<sup>87</sup>

What follows are two quotations on key aspects of research in this field:

In his overview of bilingual schooling William Mackey claimed that up to 3 000 variables could potentially intervene to account for the nature of the bilingual classroom. If we can accept this estimate, then it is evident that unravelling those parameters that educators can operate is a gigantic (task). Much of the sociologically oriented research in bilingual education has concentrated on macro-variables to help outline policy, while the inter-disciplinary aspects of the field are still awaiting an integrated assessment of the fragmented and isolated variables, which together explain successful programmes.

(Hugo Baetens Beardsmore)<sup>88</sup>

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<sup>86</sup> See The Significance of CLIL/EMILE by Hugo Baetens Beardsmore – expert statement in this report.

<sup>87</sup> The author is particularly grateful to Fred Genesee for providing a succinct description of research findings on bilingual education for majority language students which is to be published as in Endnote 15. Some secondary sources derive from this paper in this section. In addition thanks are extended to Hugo Baetens Beardsmore for assistance in identifying CLIL/EMILE research documentation and sources.

Bilingual education for majority language students is varied and complex as each community adopts different programmatic models and pedagogical strategies to suit its unique needs, resources and goals

(Fred Genesee)<sup>89</sup>

This next section breaks down some key aspects of research and discussion on this area according to certain aspects of implementation:

### Which Methods?

In the field of second language acquisition there is a difference between instructed and naturalistic learning situations. In addition, there are two types of knowledge considered. One is explicit in which learning is usually intentional, and the other is implicit where it may be incidental.<sup>90</sup>

CLIL/EMILE is often delivered through a form of naturalistic situation that allows for largely implicit and incidental learning.<sup>91</sup> Learning out of the corner of one's eye<sup>92</sup> where the language itself is only one part of a form of dual-focused education which takes place through authentic, meaningful and significant communication with others, is widely cited as a success factor in forms of CLIL/EMILE.<sup>93</sup>

In terms of providing a wider range of learners with opportunities for foreign language acquisition, Reber (1993) hypothesizes that 'from an evolutionary perspective, unconscious, implicit functions must have developed in man well before conscious

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<sup>88</sup> Baetens Beardsmore, H. 1997. Manipulating the Variables in Bilingual education. Report on the Conference on European Networks in Bilingual Education. The European Platform for Dutch Education: The Hague.

<sup>89</sup> Genesee, F. 2003 *ibid*

<sup>90</sup> See, for example, Norris, J. & Ortega, L. 2000. Effectiveness of L2 Instruction: A Research Synthesis and Quantitative meta-analysis. *Language Learning*, 50, 417-528.

<sup>91</sup> It relates to the Vygotsky school of thought on 'learning being strictly dependent on interaction between individuals', and Piaget who argued that 'everything which is in our mind has necessarily passed through our hands'.

<sup>92</sup> See, for example, Ehrman, M.E. 1996:183 *Understanding Second Language Learning Difficulties*. California: Sage.

<sup>93</sup> See, for example, Snow, A., Met, M., & Genesee, F. 1989. A Conceptual Framework for the Integration of language and Content in Second/Foreign Language Instruction. *TESOL Quarterly*, 23, 201-218.

explicit functions’.<sup>94</sup> The following observations on implicit learning are of interest when considering the reported impact of some types of naturalistic CLIL/EMILE delivery<sup>95</sup>:

- Implicit learning and memory should not be altered by the disorders that affect explicit learning and memory
- Implicit learning should be independent of age and level of development and last through time
- Acquiring knowledge implicitly should not show significant individual variation. Implicit learning processes should be very similar across the population
- Different from explicit learning processes, implicit processes should show little agreement with the results of tests of ‘intelligence’, such as the commonly used IQ tests.

Successful language acquisition depends on the amount and quality of input. But not all input becomes intake. If there is limited intake then there will be equally limited opportunities for output. Output is the realization of productive language skills. Reber’s hypothesis has bearing on why practitioners claim that CLIL/EMILE can work well with a broad range of learners. This is sometimes cited as one reason why this approach is egalitarian in opening the doors on languages for a broader range of learners.<sup>96</sup>

To achieve success, specific methodologies are developed, tested and implemented. Heinz Helfrich<sup>97</sup> observes that using a foreign language as a vehicular language requires methods, teaching styles and strategies which are neither in the traditional repertoires of foreign language teachers and not in the repertoires of non-language subject

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<sup>94</sup> Pavesi, M. 2002. Incidental vs. Intentional Learning, Unit 5, Second Language Acquisition for CLIL, TIE-CLIL, Milan, Italy citing Reber, A. (1993) *Implicit Learning and Tacit Knowledge*. NY: Oxford University Press.

<sup>95</sup> Reber, A. 1993:88 *Implicit Learning and Tacit Knowledge*. NY: Oxford University Press, cited by Pavesi, M. 2002. *Incidental vs. Intentional Learning*, Unit 5, Second Language Acquisition for CLIL, TIE-CLIL, Milan, Italy

<sup>96</sup> See, for example, Marsh, D. 1997. *Approaching Bilingual Education. Aspects of Implementing Plurilingual Education*. UniCOM, University of Jyväskylä.

<sup>97</sup> Helfrich, H. 1993. *Bilingual education in secondary Schools: Learning and Teaching Non-Language Subjects through a Foreign language*. Report on Workshop 12A, Council of Europe: Strasbourg. CC-LANG



teaching which further emphasises the innovativeness and distinct methodological qualities of types of CLIL/EMILE.

If below average and above average learners both benefit from exposure to implicit learning environments then CLIL/EMILE can be viewed as inclusive. If the only means for either group to learn a foreign language is through explicit, instructed, intentional settings, then this may be considered exclusive.

#### Which Learners?

‘Among the factors that recent studies have emphasized (within second language acquisition), three are of motivational importance for the CLIL teacher. The first one, an integrative orientation towards the target language group, that is a desire to learn a language in order to communicate with people of another culture who speak it. Second, pedagogical factors, such as the effects of classroom environment, instructional techniques, and the attitudes towards the language teacher and course. And third, the students’ linguistic self-confidence, that is their belief to have the ability to produce results, accomplish goals or perform tasks completely, and in the case of an L2 to do all this with low levels of anxiety as well’

(Munoz 2002)<sup>98</sup>

‘Research in diverse settings has consistently shown that students in bilingual programs who speak a dominant societal language acquire significantly more advanced levels of functional proficiency in the L2 than students who receive conventional L2 instruction’ (Genesee 2003)<sup>99</sup>

All European students require multilingual skills, and there are no explicit findings that suggest that CLIL/EMILE might be detrimental for below average or otherwise at-risk students.<sup>100</sup> There will always be exceptions but there is little evidence to argue that some types of learner should be excluded. Anecdotal and research-based studies have

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<sup>98</sup> Munoz, C. 2002:36. Individual Characteristics of the Learner, Unit 5, Second Language Acquisition for CLIL, TIE-CLIL, Milan, Italy.

<sup>99</sup> Genesee, F. 2003 *ibid.*

<sup>100</sup> On the contrary, mainstream exposure to CLIL/EMILE might go some way towards reducing inequities such as that noted in the Green paper on Education, Training & Research: Obstacles to Transnational Mobility, which argues that the *obstacles to mobility particularly affect young people from more deprived backgrounds and the unemployed*’.

shown good results being found with mixed ability classes in Europe.<sup>101</sup> In one case, not researched but reported locally, a school catering for adolescents with severe behavioural problems has used CLIL/EMILE for some years because it reportedly enhances the learning environment.<sup>102</sup>

Sometimes there is confusion over the pedagogical problems of handling classes that are heterogeneous in terms of individual language competence, but this should not be confused with which student types are likely to be beneficiaries.

‘overall, results indicate that low academic/intellectual ability is no more a handicap in bilingual education than it is in (first language) programs and, to the contrary, low performing students can experience a net benefit...’

...as was found in the case of students with low levels of academic ability, students with low levels of (first language) ability demonstrated the same levels of (first language) literacy development and academic achievement in immersion as similarly impaired students in (first language) programs.

...socio-economically disadvantaged students usually demonstrate the same level of (first language) development in immersion programs as comparable to (first language) programs<sup>103</sup>

... With respect to (second language) development, it has been found that economically disadvantaged immersion students generally perform better than comparable students in conventional (second language) programs on all measures of (second language) proficiency.

(Fred Genesee 2003)<sup>104</sup>

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<sup>101</sup> See, case 18, Mixed Ability (Sweden) for instance and the work by Sigrid Dentler of Gothenberg University

<sup>102</sup> *ibid.*

<sup>103</sup> See, Holobow, N. Genesee, F. & Lambert, W. The effectiveness of a foreign language immersion program for children from different ethnic and social class backgrounds. Report 2, *Psycholinguistics* 12, 179-198.

<sup>104</sup> Genesee, F. 2003 *ibid.*

### Which Age?

It has been argued that there exists a critical period in which second language acquisition best occurs, but research on this issue is far from conclusive.<sup>105</sup> This critical period hypothesis is used to argue the case that ‘the younger you start the better’. Given a naturalistic approach and quality input, early introduction to CLIL/EMILE, particularly if at low exposure, may be advantageous. What is interesting is that early language learning through non-naturalistic learning environments may offer no recognizable advantage.<sup>106</sup> It is increasingly argued that advantages can be achieved through CLIL/EMILE delivery that is fairly continuous and small-scale.

There are some types of foreign language learning approaches that focus on children’s ability to remember and reproduce ‘chunks of pre-fabricated’ language. On the surface these can appear to be highly successful. But if considered in terms of the child internalising learning and being able to use a language creatively, they are of questionable value.<sup>107</sup> These should not be confused with types of CLIL/EMILE.

The following quotes are central to discussion of age:

‘the effects of age on instructed foreign language acquisition may, however, not be the same as on naturalistic language acquisition...preliminary evaluations in Europe have concluded that ‘an early start does not automatically confer major advantages’, and that for advantages to accrue, ‘the early start factor needs to be accompanied by other factors such as quality of teaching and time for learning’. In addition, there is evidence

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<sup>105</sup> See, for example, Birdsong, D. 1999. Second language Acquisition and the Critical Period Hypothesis. Mahwah: Erlbaum. The Critical period Hypothesis (CPH) is attributed to Lenneberg 1967. It argues that between the ages of 2 and 13 years there exists a period within which potential functional and biological linguistic development needs to be activated for normal development to occur or else capacity for language learning is diminished. It is widely argued that children are better language learners than adults. See, for example, Bialystok 1997, Singleton 2001, Age and second language acquisition, Annual Review of Applied linguistics 21, 77-89; Singleton, D. & Lengyel, Z. (eds) 1995. The age factor in second language acquisition. Clevedon, UK: Multilingual Matters; and Scovel, T. 2000. A critical review of the critical period research, Annual review of Applied Linguistics, 20, 213-223.

<sup>106</sup> See, for example, new findings by Munoz, C. (forthcoming) University of Barcelona

<sup>107</sup> This is linked to the old argument about the value of ‘rote-learning’, and is more easily understood when considering input and intake. If input were sufficient then we could look at placing children in front of TV sets and have them exposed to foreign language without any need for instruction.

that even when starting later, such as at secondary level, older pupils can make good progress.<sup>108</sup>

(Munoz 2002, citing Blondin et al. 1998)<sup>109</sup>

Early language learning is like a tree with roots. There are different ways of working up through these roots that lead to the stem of the tree. One problem with formal language instruction is that it often requires approaching the tree through a single root and this particular root may simply not suit certain types of potentially successful language learners. There are multiple ways of celebrating the language learning achievements of young children.<sup>110</sup>

Age is never a factor that operates on its own. It is always linked to a cluster of other factors. There is for example a difference in the impact of the 'age factor' when this is linked to 'naturalistic' contexts out of school and to 'instructional' contexts at school. In one of these contexts, the 'naturalistic' one, an early start appears to bring quicker and more immediate advantages than does the other.<sup>111</sup>

(Richard Johnstone)

The argument that the level of proficiency in the child's first language has a direct influence on development of proficiency in a second language may not be a key issue in the forms of naturalistic language acquisition common to CLIL/EMILE, but may be so in instructed second language acquisition.

In other words argument that various levels of exposure to a target language though CLIL/EMILE threaten development of the first language (if this is a dominant language in the society) remains problematic.

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<sup>108</sup> See, for example, Krashen, S., Scarcella, R. & Long, M. 1979. Age, rate and Eventual Attainment in Second Language Acquisition. *TESOL Quarterly*, 13, 573-582.

<sup>109</sup> Munoz, C. 2002:36. Individual Characteristics of the Learner, Unit 5, Second Language Acquisition for CLIL, TIE-CLIL, Milan Italy, citing Blondin, C., Candelier, M., Edelenbos, P., Johnstone, R., Kubanek-German, A. and Taeschner, T., 1998. Foreign Languages in Primary and Pre-School Education. A Review of Recent Research within the European Union. Report for DG 22, European Commission.

<sup>110</sup> Derived from speech by Richard Johnstone, Spanish EU Presidency conference, Foreign language Learning Needs in Education Systems, Valencia, Spain 5-7 May 2002.

<sup>111</sup> Johnstone, R. 2002. Addressing the age-factor in learning an additional language: some implications for languages policy. Address at the, Spanish EU Presidency conference, Foreign language Learning Needs in Education Systems, Valencia, Spain 5-7 May 2002.

High exposure CLIL/EMILE introduced at secondary level in academic subjects where the target language competence is either heterogenous or not sufficiently advanced can reportedly have a negative impact on learning outcomes.<sup>112</sup> But research reporting negative outcomes has been conducted in contexts where voluntary participation may be limited, such as Hong Kong. In European contexts, secondary level students are unlikely to be found in high exposure CLIL/EMILE classes on academically demanding subjects if they do not have the pre-requisite target language competence. Research on European higher education is fairly equivocal in terms of high exposure.<sup>113</sup>

To quote Richard Johnstone<sup>114</sup> Europe needs a 'new logic for early language learning'- not so much linguistic as intercultural'. CLIL/EMILE applications with early language learners appear to provide this which can result in languages being valued as part of the process. This new logic is also referred to by Georges Lüdi in his 1999 report on languages education in Switzerland which is reported as follows: The rise of English has exposed a failure to teach national languages effectively in schools. This is the finding of the recently published Lüdi Report, which was commissioned to evaluate and coordinate the teaching of foreign languages in Switzerland. The report concludes that the best way to teach languages is to expose children to them early, not as the subject of lessons but as languages of instruction.<sup>115</sup>

Finally, ongoing work within neuroscience seeks to examine the ability to acquire and use several languages from a neurological perspective. One key research report<sup>116</sup> investigated how multiple languages are represented in the human brain and reports that 'second languages acquired in adulthood (late bilingual subjects) are spatially separated from native languages. However, when acquired during the early language acquisition stage of development, native and second languages tend to be represented in common frontal cortical areas'. Evidence on the cortical representation and

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<sup>112</sup> See, for example, Nikula, T. & Marsh, D. 1997. Viearaskielinen opetuksen Tavoitteet ja Toteuttaminen, national Board of Education, Finland; and Marsh, H. W., Hau, K.T., Kong, C.K., 2000. Late Immersion and Language of Instruction in Hong Kong High Schools: Achievement growth in language and non-language subjects. *Harvard Educational Review* 70, 302-345.

<sup>113</sup> See, for example, Vinke 1995 *English as the Medium of Instruction in Dutch Engineering education*, Delft University Press; and Jansen, E., RutteLe M. & Vugteveen 2001. *De relatie tussen onderwijsopet en studieresultaat*. Universiteit van Amsterdam SCO-Kohnstamm instituut/ILO pp.263-265

<sup>114</sup> As in Footnote 40

<sup>115</sup> *Guardian Weekly*, September 1999.

<sup>116</sup> Kim et al. 1997. Distinct cortical areas associated with native and second languages. *Nature*, Vol.388, 10 July 1997, p.171-175.

functioning of languages according to when they are acquired or otherwise learnt may be critical in gaining deeper understanding of language learning and age.

- There is no single optimal starting age for CLIL/EMILE – it depends on the situation. Early introduction to low exposure types is now increasingly under discussion as advantageous. What is important is that any experience of early language learning be largely ‘naturalistic’.

### **What Exposure?**

High exposure does not necessarily correlate with higher competence. It is the form, intensity, and timing of exposure that may be more important factors.<sup>117</sup> There may be diminishing returns of extended (second language) exposure in bilingual education.<sup>118</sup> The notion that CLIL/EMILE is a good thing and therefore more is better cannot be fully substantiated by available research. There is widespread opinion, sometimes supported by research, that low exposure of a longer period of time may bring substantial benefits. Achieving results depends entirely on the goals of any specific CLIL/EMILE delivery. Exposure of some 20 mins per day, amounting to about 1.5 hrs per week is considered positively in certain contexts.

- Intensity and timing of exposure (qualitative) may be more important than accumulated time (quantitative)

### **Threat to First language?**

Students in bilingual programs who speak a dominant societal language usually develop the same levels of proficiency in all aspects of the (first language) as comparable students in programs where the (first language) is the exclusive medium of

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<sup>117</sup> Genesee, F. 1987. Learning through two languages: Studies of Immersion and Bilingual Education. Rowley MA: Newbury House.

<sup>118</sup> Genesee, F. 2003 *ibid*; and Marsh, D., Oksman-Rinkinen, P. and Takala, S. 1996. Mainstream Bilingual Education in the Finnish Vocational Sector. National Board of Education: Helsinki.

instruction....instruction in academic subjects through the medium of a (second language) does not usually impede acquisition of new academic skills and knowledge in comparison to that acquired by students receiving the same academic instruction through the medium of the (first language)... Collectively these findings make a strong case for the integrated approach to language instruction that defines bilingual education'

Genesee (2003)<sup>119</sup>

- There is no available evidence which supports the view that low to medium exposure through CLIL/EMILE threatens development of the first language. It should also be noted that CLIL/EMILE frequently involves trans-linguaging whereby both the target language and the first language (majority) are actively used in the classroom.

### **Which Languages?**

English language does not have a monopoly as the sole target language in European CLIL/EMILE. For various reasons, the teaching of English language has often led to major innovations being tested and introduced. Some of these have consequently and positively influenced the teaching of other languages. Early interest in English as the vehicular language for CLIL/EMILE can, to some extent, be viewed in similar terms. There is evidence that successful experimentation with English may lead to further development in other languages.

One key issue here relates to the type of language that is found in the CLIL/EMILE environment. If language is used as a tool<sup>120</sup>, or as a means of mediation, it often becomes like a virtual language. The term virtual language has been used to describe a form of interlanguage – basically it is what is produced by a person who attempts to communicate but who does so with limited resources, or according to the influence of some special localized conditions. When a virtual language is actualised it is

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<sup>119</sup> Genesee, F. 2003 *ibid.*

<sup>120</sup> This is a common metaphor in discussion of CLIL/EMILE since the early 1990s. See, for example, Räsänen, A. & Marsh, D. Content Instruction through a Foreign Language, Research & Fieldwork reports No.18, Continuing Education Centre, University of Jyväskylä.

characterized by adaptation and nonconformity. This is contrasted to an actual language that implies adoption and conformity.

Henry Widdowson exemplifies such a distinction by referring to English language and the types of language that can be found, for example, in poetry. He quotes lines by Gerard Manley Hopkins in this respect:

When will you ever, Peace, wild woodove, shy wings shut  
Your round me roaming end, and under by my boughs

alongside e.e. Cummings

Pity this monster manunkind  
Not.

Henry Widdowson points out that ‘nobody would suggest that Hopkins or Cummings need English lessons’.<sup>121</sup> For practitioners and others involved with CLIL/EMILE, this is a core issue when we consider the target language(s). CLIL/EMILE rarely feeds the language as a subject to the learners – it provides a platform for learning by doing which is why some have likened it to learning a foreign language using a similar naturalistic path that had been used to learn the first language.

He adds that:

‘Learners of a language do it all the time, whether they are learning a first or second language. Children invent new grammatical rules, coin new words, much to the delight of their parents. Pupils in school do the same thing with a foreign language, much to the exasperation of their teachers’.<sup>122</sup>

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<sup>121</sup> Widdowson, H. G. 1997. EIL, ESL, EFL: global issues and local interests. *World Englishes*, Vol. 16, No.1, p.137-138.

<sup>122</sup> Widdowson, H. G. 1997. EIL, ESL, EFL: global issues and local interests. *World Englishes*, Vol. 16, No.1, p.138.



- English language does not have a monopoly position in European CLIL/EMILE. In higher (university level) education it appears to have become widespread especially in fields such as business but in mainstream general education, Spanish, French, German, in particular, are gaining ground as target languages. A central issue in various CLIL/EMILE delivery is often a question of what type of competence in which language(s)?

### Which Subjects?

Cross-curricular activities are a response to the recognition that traditional subject boundaries are in many ways artificial for the purposes of teaching and learning and of the numerous tasks in adult life for which a multi-disciplinary approach is essential.

UK National Curriculum, Modern Foreign Languages, 1990<sup>123</sup>

With respect to achievement in academic domains, such as mathematics, science, and social studies, evaluations of the progress of majority language students in bilingual programs indicate that they generally achieve the same levels of competence as comparable students in (first language) programs.

Genesee (2003)<sup>124</sup>

School subjects have been compared to open windows on the world, ideal for observation, developing means of interpretation, and changing personal understanding.<sup>125</sup> The preferred subjects for CLIL/EMILE have traditionally been those regarded as 'less academic', but there is also a body of opinion which increasingly argues that whatever non-language subject matter is adopted it must be relevant in terms of the dual-plane learning common to CLIL/EMILE. This view argues that subjects, or themes within subjects, should link into the true contexts of the world in terms of language and non-language topics.

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<sup>123</sup> This document goes on to state that 'The full potential of the National Curriculum subjects will only be realised if in curriculum planning, schools seek to identify the considerable overlaps which inevitably exist in both content skills...'

<sup>124</sup> Genesee, F. 2003 *ibid.*

<sup>125</sup> See, for example, Bruner, J. 1971. *The Relevance of Education*. New York:W.W.Norton.

- There is considerable interest in offering CLIL/EMILE through theme-designed, modular approaches, rather than just through subjects. The reason for this appears linked to the role that CLIL/EMILE has in initiating change to traditional ways of teaching and learning. The Council of Europe reports on this area have argued that most subject matter is appropriate for CLIL/EMILE<sup>126</sup> but any discussion on the suitability of subjects needs to be taken in respect to any given situation and age-range. The core issue here relates to the specific subject matter being of relevance, rather than the specific subject itself. For example, law might be relevant in terms of a module on European law, and not so in relation to aspects of national law.

### What Learner Competencies?

CLIL/EMILE should be viewed in terms of giving credit towards the specificity of functional domain-specific language use. Even relatively small-scale utilitarian goals of types of CLIL/EMILE should not be underestimated because they can provide learners with a narrow but firm step towards better linguistic competence through development of partial competences.<sup>127</sup> Reading and listening skills are often more advanced than speaking and writing skills even in cases of high and long exposure immersion. High exposure at early primary level can slow down literacy skills in the first language but those students who start at late primary or secondary usually shows no such lags<sup>128</sup>

There are indications that certain transversal competencies may be achieved through CLIL/EMILE because language is a principal means of forming and handling new concepts. There is considerable interest in the possible benefits of learners being able to handle concepts in both first language and target language simultaneously.<sup>129</sup>

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<sup>126</sup> Bilingual education in Secondary schools: learning and Teaching Non-language Subjects through a Foreign Language, Workshop 12A. Council of Europe CC-LANG (95) 8-11

<sup>127</sup> See, for example, Swain, M. 1998. Focus on Form through Conscious Reflection. In Doughty, C. & Williams, J. (eds.) Focus on Form in Classroom Second Language Acquisition. Cambridge: Cambridge University Press.

<sup>128</sup> Genesee, F. 1987. Learning through two languages: Studies of Immersion and Bilingual Education. Rowley MA: Newbury House.

<sup>129</sup> Henry Widdowson observes that ...learners do not simply learn the actual encoded forms they are exposed to, or instructed in, but learn from the language; they go beyond the actual input to the underlying virtual resource' when describing ways of teaching the English language which are highly similar to CLIL/EMILE. He notes that When we talk

- Due to the methodologies involved, types of CLIL/EMILE clearly suit the differing abilities of learners. What is of particular interest is the added value of the approach to these learners in terms of enhancing ambient intelligence and skill.

### What Teacher Competencies?

It is essential to understand that CLIL/EMILE is a pedagogy, a methodological approach which requires specific professional skills, including a high level of fluency in the target language. The competencies required depend on the type implemented.

The skill-specific scales of the Common Framework of Reference have potential for the assessment of language proficiency levels as relating to the linguistic demands of specific CLIL/EMILE types (because some types demand considerably heavier linguistic skills than others – compare for example a 15 minute ‘language shower’ for 9 year olds involving singing and games, to a 45 minute lesson on philosophy to 17 year olds).

Studies on teacher competencies at primary and secondary levels<sup>130</sup>, vocational<sup>131</sup> and higher education<sup>132</sup> all reveal that a good teacher will constantly adjust his/her linguistic skills to the complexity of the topic at hand through application of didactic

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about the spread of English, it is not conventionally coded forms and meanings which are transmitted into different environments and different surroundings, and taken up and used by different people. It is not a matter of the actual language being distributed but of the virtual language being spread and in the process being variously actualised. The distribution of the actual language implies adoption and conformity. The spread of the virtual language implies adaptation and nonconformity. The two processes are quite different’. CLIL/EMILE represents the process by which the language is actualised in conjunction with content implying nonconformity and adaptation. This is perhaps one key success factor in relation to why young people respond so well to this type of methodology. Widdowson, H. G. 1997. EIL, ESL, EFL: global issues and local interests. *World Englishes*, Vol. 16, No.1, p.140..

<sup>130</sup> Nikula, T & Marsh, D. 1997. *Viearaskielinen opetuksen Tavoitteet ja Toteuttaminen (Content and Language Integrated Learning in the Primary and Secondary Sectors)*, Working group report 21:98, National Board of Education, Helsinki.

<sup>131</sup> Marsh, D., Oksman-Rinkinen, P. & Takala, S. 1996. *Mainstream Bilingual Education in the Finnish Vocational sector*. National Board of Education, Helsinki.

<sup>132</sup> See, for example, Klaassen, R. 2001. *The International University Curriculum – Challenges in English-medium Engineering Education*. Technische Universiteit Delft. See also Vinke, A. 1995. *English as the Medium of Instruction in Dutch Engineering Education*. Delft University Press & Räsänen, A. 2000. *Learning and Teaching through English at the University of Jyväskylä*. University Language Centre: Jyväskylä University Printing House; Lehtonen, T., Lönnfors, P. & Virkkunen-Fullenwider, A. 1999. *Teaching through English at the University of Helsinki*. Helsingin yliopisto Opintoasiainosaston julkaisuja 18: Helsinki

skills. Many CLIL/EMILE teachers who do not have native or near-native fluency in the target language will need to adjust how they teach according to linguistic limitations. But this should not be seen as a failing on the part of such people who teach through CLIL/EMILE. On the contrary it reflects real-world linguistic demands where interlocutors constantly adjust their speech and non-verbal communication, whether in the first or second language, and with certain groups of CLIL/EMILE learners this can be a positive ‘model’ to observe an otherwise experience. Any over-emphasis on ‘language skill’ can lead us to neglect the significance of methodological skill. In addition, as seen most recently in an extensive Dutch study<sup>133</sup> the methodological skills for CLIL/EMILE can be successfully taught through in-service or pre-service professional programmes<sup>134</sup>.

The following list outlines the ‘Idealised competencies’ required of a CLIL/EMILE teacher who would teach cognitively demanding subjects extensively through the target language.<sup>135</sup>

BASIS OF COMPETENCY	SPECIFIC COMPETENCY REQUIRED
Language/communication	Sufficient target language knowledge and pragmatic skill for the CLIL/EMILE type followed, so as to be a producer of comprehensible input for learners
	Sufficient knowledge of the language used by the majority of learners

<sup>133</sup> Huibregste, I. 2000. Effecten en Didactik van Tweektalig Voortgezet onderwijs in Nederland. Utrecht:WCC

<sup>134</sup> Various pre- and in-service programmes have been produced in recent years through DG EAC (Lingua and Leonardo da Vinci) such as BILD, DIESeLL, Tel2L, VocTalk, Tie-CLIL.

<sup>135</sup> This is from a working document at the University of Jyväskylä and has previously been published in Marsh, D., Maljers, A. Marsland, B. and Stenberg, K. Integrating Competencies for Working Life, UniCOM, University of Jyväskylä 2001.

BASIS OF COMPETENCY	SPECIFIC COMPETENCY REQUIRED
	Fluency in an additional language, which may be the CLIL/EMILE target language or some other (e.g. one of particular relevance to target language native-speaker teachers as regards their personal additional-language learning experience)
Theory	Comprehension of the differences and similarities between the concepts of language learning and language acquisition
Methodology	Ability to identify and discriminate between language use which is medium-, message- and socially-oriented, and provide and elicit learner input in an “acquisition-oriented” manner
	Ability to exploit methodologies which enhance the use of socially- and message-oriented language, thus providing optimal opportunities for learner communication through employing enriched communication strategies
	Ability to use communication/interaction methods that facilitate the understanding of meaning

BASIS OF COMPETENCY	SPECIFIC COMPETENCY REQUIRED
	Ability to identify linguistic difficulties (e.g. with language construction rules) resulting from first/other languages interference, or subject conceptualisation
	Ability to use strategies (e.g. echoing, modelling, extension, repetition) for correction and for modelling good language usage
	Ability to identify and use dual-focussed activities which simultaneously cater for language and subject aspects
The learning environment	Ability to use different classroom settings in order to provide acquisition-rich learning environments
	Ability to work with learners of diverse linguistic/cultural backgrounds
	Ability to devise strategies, such as those for learning languages, where learning is enhanced by peer interaction and according to principles of learner autonomy

BASIS OF COMPETENCY	SPECIFIC COMPETENCY REQUIRED
	Knowledge of the potential of information and communication technology on CLIL/EMILE learning environments
Materials development	Ability to adapt and exploit materials in consideration of semantic (conceptual) features of structure, as well as textual, syntactic and vocabulary features
	Ability to select complementary materials on a given topic from different media and utilise these in an integrated framework
Interdisciplinary approaches	Ability to identify the conceptual relations between different subjects with a view to making learning interlinked, relevant, easier and effective
	Ability to identify conceptual/semantic relations between the different languages active in the environment
	Ability to realise a Socratic philosophy which encourages learners to develop self-confidence and a “thirst for learning”
Assessment	Ability to develop and implement evaluation and assessment tools which complement the CLIL/EMILE

BASIS OF COMPETENCY	SPECIFIC COMPETENCY REQUIRED
	type implemented

• Language fluency alone is not sufficient to be an effective CLIL/EMILE teacher. It is not necessary to assume that teachers should have native speaker or near-native speaker competence for all forms of delivery - 'you don't have to be a diamond to shine'.<sup>136</sup> But it is necessary that teachers can handle CLIL/EMILE methodologically in terms of language and non-language content, application, through use of optimal linguistic target language skills.

#### Which Environments?

Success factors reported<sup>137</sup> in relation to 'early-entry bilingual/immersion programmes in Canada', can be equally attributed to various forms of European CLIL/EMILE:

- Tapping the learner's natural language learning ability through naturalistic incidental learning contexts and satisfying needs arising from diverse learning styles
- Utilizing the learner's positive attitude towards the language(s) and culture(s)
- Providing an opportunity for extended exposure (due to having started early)

But it has been pointed out that an important consideration in the conceptualisation of good practice is the tension created between generalisability and context-specificity;

<sup>136</sup> Teacher quotation from Nikula, T & Marsh, D. 1997. *Viearaskielinen opetuksen Tavoitteet ja Toteuttaminen* (Content and Language Integrated Learning in the Primary and Secondary Sectors), Working group report 21:98, National Board of Education, Helsinki.

<sup>137</sup> Genesee, F. 2003 *ibid.*



that is to say to what extent can aspects of good practice carry across a variety of contexts and how far is good practice context-specific<sup>138</sup>

- There is evidence that CLIL/EMILE can be implemented in appropriate context-specific ways in widely differing situations if the situational variables<sup>139</sup> are understood, and taken into consideration, as indicated through the breadth of case studies included in this report.

### Which Variables?

There is no specific agreement on which of the variables bridge the gap between generalisability and context-specificity. However the following could be viewed as core for achieving good practice<sup>140</sup>:

#### The Situational Parameter

The Institutional Environment

#### I. Situational Clarification

- ◆ aim and selection of a CLIL/EMILE approach
- ◆ objectives set for CLIL/EMILE courses
- ◆ realization process of aims and objectives
- ◆ flexibility of the institutional infrastructure (structures, procedures, decision-making processes)

<sup>138</sup> Quotation from Brewster, J. 1998: 91. Teaching Content through English, Innovation and Best Practice, Kennedy, C. (ed.) Longman:UK

<sup>139</sup> See, for example, Hugo Baetens Beardsmore 1997. Manipulating the Variables in Bilingual Education, report on the Conference of European Networks in Bilingual Education, The European Platform for Dutch Education: Den Haag.

<sup>140</sup> Marsh, D. 1996. Integrating Content and Language Instruction. 1996 Mainstream Bilingual Education Forum, Helsinki – later published in Marsh, D. & Marsland, B. (eds.) 1999. Distance In-service Education for Enhancing Second Language Learning, DIESeLL, UniCOM, University of Jyväskylä

- ◆ professional roles and inter-staff relationships/interactions

## **II. Action Plan**

- ◆ institutional capacity
  - ◆ financial resources & investment required
  - ◆ materials bank/library/self-study facilities
  - ◆ support systems (e.g. computer, networks, training, etc. ...)
  - ◆ classroom facilities
- ◆ human resources
  - ◆ available teaching staff
  - ◆ new teacher recruitment
  - ◆ use of external staff
  - ◆ teacher selection strategies
  - ◆ teacher development programmes
  - ◆ in-service/tutor systems
- ◆ student selection
  - ◆ selection procedure of in-house students
  - ◆ recruitment of new students and selection procedures
- ◆ the CLIL/EMILE programme
  - ◆ curriculum integration
  - ◆ time-tabling
  - ◆ interculturalism in the classroom
- ◆ promotion of CLIL/EMILE
  - ◆ briefing students
  - ◆ briefing parents
  - ◆ briefing the interest groups in the wider environment
  - ◆ course descriptions
  - ◆ institutional ethos

**The Operational Parameter**

Putting the CLIL/EMILE programme into practice

**III. The CLIL/EMILE Curriculum**

- ◆ choice of subjects
  - ◆ objectives/targets of course subject
  - ◆ course syllabus and learner >< teacher negotiation
  - ◆ course outcome predictions and learner >< teacher agreements
  - ◆ course approach and methodological shift
  - ◆ intercultural aspects of course design
- ◆ scheduling of CLIL/EMILE subject courses
  - ◆ time allocation
  - ◆ CLIL/EMILE subjects >< L2 teaching
  - ◆ teacher interaction & teamwork
- ◆ course materials
  - ◆ availability of materials
  - ◆ national & international networking
  - ◆ self-made materials
  - ◆ materials for self-study purposes

**IV. The CLIL/EMILE Team**

- ◆ professional roles, relationships, interaction and support
  - ◆ subject teacher >< subject teacher
  - ◆ subject teacher >< L2 teacher
  - ◆ subject teacher/L2 teacher >< administration
  - ◆ subject teacher/L2 teacher >< student
  - ◆ role of the L2 teacher in the CLIL/EMILE context
  - ◆ in-house support systems and tutoring

**V. The CLIL/EMILE Teacher**

- ◆ L2 competence
- ◆ professional role

#### **VI. The CLIL/EMILE Classroom**

- ◆ learning in a L2
  - ◆ student >< teacher relationship
  - ◆ self-directed, co-operative, and experiential learning
  - ◆ supporting the learning process
  - ◆ tasks, assignments, self-study
  - ◆ assessment
- ◆ L2 threshold
  - ◆ self-confidence
  - ◆ reduced personality syndrome
  - ◆ emotions
  - ◆ linguistic fatigue
- ◆ group dynamics in a learner-centred bilingual environment
- ◆ intercultural dynamics

#### **The Outcome Parameter**

Foresight & Future

#### **VII. Institutional/workplace feeding systems**

- ◆ regional, localized opportunities for continuity
- ◆ co-operation with the local, national, and international labour market
- ◆ co-operation with foreign institutions and EU support organizations
- ◆ certification

#### **VIII. Networking: local, national, international**

- ◆ forums for sharing experience and expertise

- ◆ Network systems

#### IX. CLIL/EMILE Programme Results

- ◆ students' L2 and content performance assessment
- ◆ choice of L2
- ◆ new perspectives re:
  - ◆ curriculum planning
  - ◆ classroom practice
  - ◆ institutional organization

#### Quality

If we cannot demonstrate that the quality of CLIL/EMILE is better than less innovative forms of education, then we legitimise criticism of what we are doing.<sup>141</sup>

Any quality assessment process needs to be integrated into a process of quality assurance. This has to be done locally and preferably linked to research findings from within the country, and from others. Such a process presupposes not only an agreed series of objectives for CLIL/EMILE and the regular assessment of achievement, but also a system of review. In a process of quality assurance it is at the review stage that the results of the assessments are usually interpreted, with the review body having the authority to add to, adjust, or delete objectives and assessment processes as necessary. A few countries in Europe nationally, or regionally/federally carry out this sort of 'quality assessment' because often experimentation of CLIL/EMILE is relatively new. Central bodies have not yet adjusted to providing this type of service which would not only provide localised research bases for decision-making, but also a support system for ensuring that quality is achieved and maintained.<sup>142</sup>

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<sup>141</sup> Nixon, J. 2001 *Kvalitet I SPRINT*, Skolverket, Stockholm, Sweden.

<sup>142</sup> Both the Netherlands, Sweden and some federal states of Germany, possibly others not known, have such systems in operation. See, for example, *SPRINT – Content and language Integrated Learning in Sweden, 2000*, *Quality in SPRINT* and *SPRINT – hot eller möjlighet*, produced by Skolverket, Stockholm, Sweden.

- Over time local quality assurance systems will provide sufficient evidence for the implementation or otherwise of CLIL/EMILE in schools. Trans-national systems could be designed for adoption and adaptation in local contexts.

### **CHAPTER 3: CLIL/EMILE IN EUROPE: Realization**

Teaching through a foreign language has a long tradition in various schools and school systems throughout Europe. These have generally served special societal needs (for instance, Luxembourg) or types of learner (for instance, international schools). Teaching through a second language is also extensive in certain regions, particularly bilingual environments (for instance, Wales and Catalonia).

These types are not the focus of this chapter. Here the realization of CLIL/EMILE in Europe is described in relation to foreign language usage. Focus is on scale of activity and development, in terms of quality and/or growth, with major emphasis on significant movements in mainstream environments.

Any discussion of scale of activity requires attention to be given to the essence of CLIL/EMILE methodology, namely, that it is dual-focused on both language and non-language content. A large amount of the type of language education provided to early language learners (up to about 12 years of age) in some educational systems involves integration of language and non-language content. If a child learns a foreign language through focus on function and content, more than on form, then it can be argued that this is likely to be a form of CLIL/EMILE. By definition therefore, such types of 'language teaching' involve use of CLIL/EMILE methodologies. The difficulty in generalization stems from perceived differences in the methodologies used to teach foreign languages to early language learners in different parts of Europe.

The percentage of schools in Europe that use CLIL/EMILE to some extent has been a key discussion point with experts, and others, during the report drafting process. There is no empirical evidence available to substantiate any quantitative claim one way or the other. Some countries have comprehensive, reliable and updated data available

covering all CLIL/EMILE innovations. Others have partial data, and some little to no reliable data. This issue is addressed in the recommendations.

It is estimated that, overall, some 5% of schools in Europe teach through CLIL/EMILE methodologies. It should be stressed that the scale of activity needs to be considered in terms of exposure which may range from 5 – 100%.

In the last ten years, there has been a rapid growth in some countries. Activity and development is often directly linked to the extent to which schools, or regions, are autonomous. However both centralized (for instance, Austria and France) and more de-centralized systems (for instance, Finland and the Netherlands) may enable CLIL/EMILE to be realized.

#### Pre-school & Primary

Statistics are particularly hard to obtain on kindergarten and pre-schooling. There are cases where kindergartens prepare children for CLIL/EMILE at primary through various types of 'language encounter' in Finland. The percentage of such facilities is estimated at about 0.5%. Although there is much discussion about possible merits of the approach at this level, which suggests a possible increase in activity, substantiation remains problematic.

At primary level there are systemized approaches involving all schools in Luxembourg based on citizens becoming trilingual (Letzeburgesch, German and French). German is introduced as a foreign language in the first year. This swiftly replaces Letzeburgesch as medium of instruction until it becomes the major vehicular language at the end of primary schooling. German, then, is the exclusive language for content learning. French as a language is introduced in Grade 2 of primary school and used as a vehicular language in secondary education.

In Finland there has been interest shown in CLIL/EMILE at primary level.. Recent figures are not available but in 1996 about 3.5% of all schools were reported as using the approach, and projectile figures indicated growth for 1996-1999.

In Germany there is one particular initiative which links minority and foreign languages in Berlin. This involves 3 500 learners which involves both primary and secondary levels and 9 target languages of which 6 are community languages as described in Case Profile 4.

In Spain, as in other regions, there are various initiatives being conducted that are often project-based. In the Basque country up to 30 % of the public primary schools offer small-scale CLIL/EMILE in English within a framework of trilingual education. In Catalonia project ORATOR 1999-2004 has developed CLIL/EMILE in 8 schools involving some 650 students. The LINGUAPAX project involves 5 schools and some 300 students. The total number of students experiencing trilingual education in Catalonia is about 5 500. Finally, there is the MECD/British Council project in Madrid which started in 1996 and now involves teaching through English in 42 mainstream schools and some 10 800 pupils.

In Italy a large-scale project ALI CLIL (Lombardia) is currently active. Starting in 2001 this involves both primary and secondary sector schools (some 1 100 pupils in 30 schools). Receiving support from Socrates/Lingua and reported in Case Profile 5 , the target languages are English, French, German and Spanish.

Trilingual education experiments in Catalonia (15-20 schools) and the Basque country, involves Castilian and either Catalan or Basque, and a foreign language, which is usually English or French. One or two content subjects are usually offered through the foreign language. The Orator Project (1999-2004) initiated by the Catalan Department of Education offers schools the possibility of implementing CLIL/EMILE for two years. As of 2002, it is reported that there are 8 primary schools active involving some 650 pupils. The Linguapax project launched in 1991 involves 5 primary schools (around 300 pupils). English and French are the main target languages.

In Estonia about 330 pupils are currently undergoing an immersion pilot project which both aims at integrating minority language speakers and introducing a foreign language. This is described as Case Profile 11.

In Austria there is a move underway to introduce language learning in the whole primary sector. To allow this to happen, one option is to use forms of CLIL/EMILE. A localized example is in Salzburg where some 1 500 pupils in 15 schools experience the



approach in 'language showers' through English and French. This is described in Case Profile 2.

In Belgium recent developments in Wallonia, following the educational modifications introduced in 1998, are having an impact on general education. 28 schools have permission to use an alternative language for part of their education. 21 have opted for Dutch as a target language, 5 through English, and 2 through German.

In Hungary it was reported (2000) that there are 7 schools teaching through English and 9 schools teaching through German.

Denmark, Ireland, Greece, Portugal, The United Kingdom, Sweden and the Netherlands are reported to have very little CLIL/EMILE at primary level. In Scotland, for example, there is one high-profile primary school (Aberdeen) that teaches through French.

The increasing number of schools which cooperate within, for instance, Comenius 1, are almost certainly experiencing some form of CLIL/EMILE. Little is known about the didactics and outcomes of these projects in terms of language development. But, it can be expected that languages development is an added value.

### Secondary

In 1992, following grassroots pressure, the Austrian Ministry of Education launched a 10 year national CLIL/EMILE project 'English as medium of instruction' for special topic related projects and cross curricular activities. Increased efforts were also made to integrate school visits and exchanges into the curriculum. The project successfully provided support and is being reduced in scale because the schools are increasingly considered able to continue with this approach after the initial start-up period. Before the 1990s there were about 8 bilingual schools in the country. In 1999, there were reportedly 54 Hauptschule (10-14 years, 4,1 % of total number of this type of school), 56 Allgemeinbildende Höhere Schule (10-18 years, 26,8 %), and 59 Berufsbildende höhere Schule (14-19 years, 31,9 %). In 2002 there are estimated to be about 200-250 secondary schools involved with exposure rates of between 10 – 100%. The target language is predominantly English with some 3% in French.

In Bulgaria there are special language schools that need to offer at least 3 subjects through English to gain specialized school recognition. Students follow a preparatory year in the target language before entering CLIL/EMILE streams. There is a broad network of schools that teach through a foreign language that may be English, French, German, Spanish, Russian, or Italian.

In 1996 it is reported that Estonia had some 30 'foreign language' schools in which some subjects are taught through a foreign language. English was the predominant language, followed by German and Swedish.

In France, bilingual sections were set up as a result of the 1963 agreement between France and Germany. More significant in terms of mainstreaming was the introduction of the sections européennes in 1992. There are some 2 508 sections européennes resulting from centralized action allowing for introduction of the approach in 1992. Target languages are German, English, Italian and Spanish (in addition to some provision in Dutch, Russian and Chinese). A rapid increase of about 50% was seen between 2000-2002. Due to the rapid extension, and political interest in mainstreaming, this is described in Case Profile 1.

In the Czech Republic, the Ministry of Education started a network of upper secondary schools with bilingual sections in 1990. This originally involved 4 schools, targeting French. It later expanded to 12 schools in total with 5 teaching through French, 3 through German, 2 through Spanish, one through Italian and English respectively. All of these schools cooperate with a foreign partner. Intensive teaching of the language in the first two years is followed by CLIL/EMILE in the third year, which may involve some 5 subjects.

In Finland, a 1989 initiative by a working party of the Ministry of Education recommended that teaching through a foreign language be available in Finnish schools. In this decentralized environment, figures available from 1996 show that about 5 % of mainstream schools offer some sort of CLIL/EMILE. A figure of 14% of all lower secondary, and 24% of upper secondary show the extent to which the approach became increasingly popular at the higher level of education. Recent (1999) directives

on teacher linguistic competences may have reduced the projectile figures from 1996 which estimated delivery peaking in this sector at about 20% overall.

In Germany data from 2000 reports that there are 307 CLIL/EMILE secondary schools of which 216 teach through English, and 77 through French.

In Italy the Liceo Linguistico Europeo, which started in 1992/1993 with some 9 schools had expanded to 95 schools by 1998. This complements the Liceo Classico Europeo that has been operational since 1992 in 17 institutions. There have been numerous small-scale activities and in addition to ALI-CLIL, reported above which also involves secondary level students, there is a large-scale CLIL Science (Piemont) project currently active. Involving about 1 200 pupils in 40 schools, the project received support from Socrates/Lingua and is reported as Case Profile 7. The target languages are English, French and German.

In Luxembourg, French is introduced as the language of instruction in secondary schools. Maths and French language are taught through French and the other subjects through German in the first 3 years. German is gradually replaced by French through the longer secondary school programme until it remains as a subject only.

In 2000, Hungary had 39 schools (secondary academic) of which 17 teach through English, 11 through German and 6 through French. Italian, Russian and Spanish are used in one school each.

CLIL/EMILE was introduced in the Netherlands in 1989. In 2002 there are 44 secondary schools using English and 1 through German. The scales is high throughout, at 50% of the curriculum.

In Spain small-scale initiatives vary from region to region. Many of the privately-funded secondary schools offer CLIL/EMILE, mainly through English. For example, there is estimated to be some 15-20 schools offering trilingual education in Catalonia alone. Between 1998-1999 a large pilot experiment involving 260 Catalan schools (and some 52 000 students) was started whereby English was taught using an inter-disciplinary content-based approach.

In Sweden, grassroots interest in the early 1980s, followed by government support through change of educational directives in 1992, allowed the scale of CLIL/EMILE to increase. In 1999 2% of lower secondary schools, 4% of all 4 compulsory schools, and 20% of upper secondary schools were reportedly using the approach.

In the United Kingdom, The Nuffield Enquiry of 2000 made a strong recommendation for provision of CLIL/EMILE. The number of recently developed Language Colleges is estimated to be about 350-400 (2000), and it is possible that these schools will be the location for greater delivery of CLIL/EMILE in the future. There is also a trend towards specialisation where all schools should adopt one of about five strands – of which languages is one. This may also have a knock-on effect on CLIL/EMILE development in the future. As of now, some 40 secondary schools are reported to have introduced CLIL/EMILE.

There is no information presently available to suggest that there is much significant activity in other countries.

### *Vocational*

In Austria, which has 59 Berufsbildende höhere Schule (14-19 years, 31,9 % of total of this school type), there is speculation that CLIL/EMILE will increasingly develop in this sector.

In Finland, figures from 1996 found 45% of colleges responding to a questionnaire survey (response rate 56.8%) were actively involved with CLIL/EMILE delivery. As with Austria, existing levels are considered likely to continue if not increase. In Finland, the predominant target language is English.

In Hungary data (2000) show that there are 12 secondary vocational schools, 6 teaching through English, 5 through German, and 1 through French.

In the Netherlands a consortium of some 23 vocational colleges offer international business streams through English. This is likely to expand.

In Spain there are a few state initiatives that are small-scale in mainstream education. Some private schools offer CLIL/EMILE on courses such as accounting, computing, and commerce.

There is no information presently available to suggest that there is much significant activity in other countries.

## CHAPTER 5: The Added Value of CLIL/EMILE in Europe

### Synopsis

Language teaching and learning, as delivered through the widely differing educational systems of the European Union member states, clearly needs additional support in one form or another. Some would argue that contemporary languages education has often failed to provide platforms for learning which suit a broad range of people, young and older. To learn a language and subject simultaneously, as found in forms of CLIL/EMILE, provides an extra means of educational delivery which offers a range of benefits relating to both learning of the language, and also learning of the non-language subject matter. In addition there are social, psychological and economic benefits that suit political policies and goals. Thus there is a need to consider CLIL/EMILE in terms of language planning, pedagogies and politics.

In political terms it is noteworthy that some of the current accession countries (for example, Bulgaria, Czech Republic, Estonia, Hungary, Latvia and Romania) are actively exploring use of CLIL/EMILE in order to prepare for EU membership. The same thing appears to have happened with the last major intake of new members in the mid-1990s (Austria, Finland, Sweden) which all saw a major increase in delivery of CLIL/EMILE prior to and following membership<sup>143</sup>

To successfully reach goals stated in various formal declarations (white papers, green papers, resolutions etc.) and in particular those of Objective Four<sup>144</sup> proficiency for all in three community languages, CLIL/EMILE can be utilized as a platform for achieving various forms of added value, each dependent on context and application.

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<sup>143</sup> The Without Borders network which is spearheading a campaign to build closer ties with states outside the European Community will probably link CLIL/EMILE schools through different target languages.

<sup>144</sup> 1995 White Paper Teaching and Learning: towards a Learning Society, European Commission

These are briefly described according to specific types of individual and social interests in terms of The economics of language, social inclusion & egalitarianism, gender equality, relevance and value of limited competencies, early language learning, certification, and school development.

#### The Economics of Language

Although there is continuous widespread discussion on the value of linguistic diversity in Europe, relatively little empirical work has been done, econometric or other, on the economic yield which may be had from increasing efforts within education to enhance levels and types of language learning. Grassroots stakeholders, a social force that is very often instrumental in exploring how CLIL/EMILE could be introduced in schools and colleges, do view this approach as offering young people an additional bonus that could enhance future personal and professional prospects. When you examine why parents and others want their children to experience CLIL/EMILE the view that it may ultimately lead to greater individual economic opportunities and benefits is evident.

Whereas the focus of those stakeholders who are parents, or young people themselves, may be on the individual benefits of being able to use, to some extent, one or more other languages, other stakeholders may have other differing focuses which share a common interest in securing economic benefits. These may be localized or broadly social. In the case profiles included in this report a localized example is included of a college which introduces CLIL/EMILE in three community languages at vocational level so as to prepare young people for identifiable and localized work opportunities in organizations which explicitly state that they need multilingual personnel.<sup>145</sup>

But societies are also stakeholders, and in terms of providing impetus for action, if not financial resources for implementation, the economic yield of an approach like CLIL/EMILE is often cited, even if it cannot be substantiated. There is a need for a form of econometric analysis, or some alternative description, which convincingly shows

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<sup>145</sup> Please refer to Case Profile 14

that language knowledge is human capital for a society at large.<sup>146</sup> One strategy is to examine the unit costs of learning a language in terms of learning languages from the same and differing linguistic families and describe these in relation to appreciating and depreciating assets.<sup>147</sup> Investment-return oriented information could convert what is believed to be the case into empirical arguments for investment in educational innovations such as CLIL/EMILE.

#### Social Inclusion & Egalitarianism

CLIL/EMILE in mainstream education provides a greater range of young people than earlier with opportunities of linguistic development that would previously have been either denied, or unavailable for lack of resources. In Europe, the argument that CLIL/EMILE is egalitarian by nature is strongly voiced in some regions. Providing the opportunity for learning languages was a major shift of policy in some educational systems over the last fifty years. To provide opportunities to actively use these languages at school or college, is an experience which CLIL/EMILE is seen to provide.<sup>148</sup>

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<sup>146</sup> Not only for member state societies but also the European Union as a whole. One early reference to the cost of admitting Eastern European accession states without changing either policy or levels of multilingualism so as to reduce reliance on over-extensive translation and interpretation stems from an article in *Libération* (June 1992) 'with 9 languages, there are 72 possible translation permutations for meetings. With 12 languages, there are 132 permutations, with 16 languages, there would be 240. For each meeting using 9 languages, there are 27 interpreters...for 13 languages, you would need 42 interpreters and for 16 languages, you would need 54 interpreters. It compared cost of the Common Agricultural Policy arguing that ongoing language policy and levels of multilingualism would dwarf the budget of the CAP.

<sup>147</sup> An attempt to do this was done in Canada (1998) which produced a set of hard arguments as to why investment in learning languages was beneficial for regions and the country as a whole in Breton, A., *Economic Approaches to Language and Bilingualism*, Department of Public Works and Government services, Canadian Government. Some local attempts have also been made in Europe, and more widely in 1994 by The European Bureau for Lesser used Languages. Please refer to Price, A. (ed.) Casson, M, Cooke, P. & Williams, C. 1994. *Quiet Revolution: Language, Culture and Economy in the Nineties*, translated into French and published by the Bureau Européen pour les Langues Moins Répandues in 1997 under the title; *Les dividendes de la diversité - Langue, culture et économie dans une Europe intégrée*.

<sup>148</sup> This is argued on the grounds that it was only parents with both interest and financial resources who would send their children abroad for 'language courses' or other forms of foreign experience in earlier days.

The most commonly cited reasons for social exclusion are:

- ◆ socio-economic barriers
- ◆ negative attitudes to difference
- ◆ inflexible curricula
- ◆ processes and forms of language and communication
- ◆ poor learning environments
- ◆ inappropriate and inadequate support infrastructures
- ◆ inadequate policy and legislation
- ◆ lack of family/parental involvement and support
- ◆ lack of clarity and learner support for learning objectives
- ◆ availability of appropriate human resources

It has been argued that forms of CLIL/EMILE can act as a potential tool for reducing the effects of social exclusion on additional language learning<sup>149</sup> because it impacts on some of these factors. The inclusion arguments also relate to the breadth of educational sectors where CLIL/EMILE is appearing.<sup>150</sup> The successes at the vocational level are slowly beginning to filter through to those regions that may not even have bothered to teach foreign languages on courses because ‘they failed at languages at school and they will fail here’. This is clearly not the case with some examples of CLIL/EMILE delivery which have provided young people in, for example, the vocational sector, a second chance to learn foreign languages through an alternative approach, namely learning by doing, rather than learning by studying.

The most extensive available research shows no evidence that there are specific ‘at risk’ learner types that would be disadvantaged by CLIL/EMILE, on the contrary there is evidence that so-called low ability learners can achieve specific advantages.<sup>151</sup>

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<sup>149</sup> Source: Marsland, B. & Marsh, D. 1999. Progress: Bristol Local Education Authority

<sup>150</sup> The term social exclusion is both sensitive, frequently defined according to context and emotive. In this report Case Profile 18 is particularly interesting in terms of ‘mixed ability’ classes and the way in which one form of CLIL/EMILE appeared to be successful with students who might otherwise not have opted to learn additional languages.

<sup>151</sup> Genesee, F. 2003 (forthcoming) What do we know about bilingual education for majority language students? In Bhatia, T.K. & Ritchie, W. (eds.) Handbook of Bilingualism and Multiculturalism. London: Blackwell



Evidence of how CLIL/EMILE may benefit those who are considered ‘disabled’ is not forthcoming, although one case cited in the case profiles does argue that it is a positive educational experience for certain types of young people who are regarded as having ‘behavioural difficulties’.<sup>152</sup>

#### Gender Equality

There is a widespread anecdotal view that ‘girls are better at foreign languages than boys’. Some CLIL/EMILE practitioners argue that this may not be so much a matter of innate gender-linked ability as preferred ways of learning which complement diverse language learning styles. Forms of CLIL/EMILE provide alternative platforms for language learning that could help close the perceived, and to some extent reported, differences in language learning performance between girls and boys in school.<sup>153</sup>

#### The Relevance and Value of Limited Competencies

CLIL/EMILE can undermine and challenge some of the negative consequences of the all or nothing attitudes that can influence people’s perceptions of themselves as language learners.<sup>154</sup> By showing value towards both partial competencies and domain-specific limited competencies, the approach can challenge this particular attitudinal obstacles

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<sup>152</sup> This school was not examined in depth because of the low scale of CLIL/EMILE but there is some brief description included in case Profile 18.

<sup>153</sup> In Finland at the advanced level of learning English as a foreign language at secondary level boys perform better in the final matriculation examination, but less well in terms of corresponding school grades. One informant, Anne Ontero (Board Member, Finnish National Association of Teachers of English) argues that even though the textbooks and allied materials are very good in terms of language learning, certain types of student need more substance in terms of non-language content. Students voiced criticism of not having challenges, in both English and other languages, and that ‘they could learn more things at the same time’ – in other words learn content alongside the various forms of often highly sophisticated exercises, communicative and form-based, used in the courses.

<sup>154</sup> Hugo Baetens Beardsmore 1993. Bilingual Learning: Institutional Frameworks – Whole School Policies. Workshop 12A. Language Learning for European Citizenship. Council of Europe CC-LANG (93)

towards language learning.<sup>155</sup> It can also go beyond linguistic and communicative skills by reinforcing personal self-respect<sup>156</sup>

A key aspect here is showing the value of a learner's interlanguage. This is the type of language produced by learners who are in the process of learning a second language.<sup>157</sup> In language learning which is focused on getting declarative knowledge (knowing that) about the specific language, such language production is inevitably the focus of error correction. In CLIL/EMILE where the focus is more likely to be on getting procedural knowledge (knowing how) the significance of achievement through doing things with words is likely to be greater.<sup>158</sup> This can be a crucial factor in building self-confidence and encouraging learners to continue being productive in terms of language use, literally in producing comprehensible output.

It has been argued that CLIL/EMILE may not provide the house of an additional language, and not even necessarily a room in that house, but it can give the key to the door, and provide individuals with the major first step towards cultivating a can-do attitude towards language learning, a key to the door if not the house itself.<sup>159</sup>

#### Early Language Learning

In their early years people are said to acquire the basic attitudes about foreign language learning and cultures that may stay with them for the rest of their lives. Late introduction to language learning (after 11-12 years) may mean that we lose the window of opportunity, known widely as the Critical Period, which serves to support the argument that when learning additional languages the younger the better. The

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<sup>155</sup> The Council of Europe's Common Framework of Reference, and more specifically practical applications such as the Portfolio enable individuals to see that credit can be given to even partial limited competencies, and even very limited exposure to CLIL/EMILE can help facilitate such attitudinal change.

<sup>156</sup> This is a difficult assertion to prove on the basis of existing European empirical research, but is widely reported by practitioners.

<sup>157</sup> From Navés, T. 2002. *Interlanguage: Learner's Language in Second Language Acquisition for CLIL*. TIE:CLIL: Milan: Sovrintendenza Scolastica Regionale della Lombardia

<sup>158</sup> From Pavesi, M. 2002. *Incidental vs. Intentional Learning in Second Language Acquisition for CLIL*. TIE:CLIL: Milan: Sovrintendenza Scolastica Regionale della Lombardia.

<sup>159</sup> Marsh, D. 1997. *Approaching plurilingual education*, in Marsh, D., Marsland, B. & Nikula, T. (eds.) *Aspects of Implementing Plurilingual Education*. Jyväskylä: University of Jyväskylä

naturalistic approach, characteristic of much CLIL/EMILE, offers the possibility of enhancing learning and performance through appropriately timed education.<sup>160</sup>

‘Language is an instinct. It is not a cultural invention like the wheel or agriculture, and it is not passed down the way we pass down other bits of a culture like how the government works or how to tie your shoes. Children are designed to pick up a language just as birds are designed to learn how to fly, to migrate or sing, and spiders designed to spin webs. Natural selection shaped the human brain for children to pick up the grammatical structures of speech around them. The environment of a young child is full of things he or she learns to use as tools. Language is one of these, and the natural way a child learns its first language can also be used by that child to learn other languages’.<sup>161</sup>

### **Certification**

Through CLIL/EMILE, particularly at medium to high exposure students are linguistically prepared to take up their right to study abroad, and often better prepared for the opportunities in Europe for future studies and working life. Putting aside certification of overall educational achievement such as the International Baccalaureate, schools and colleges often link CLIL/EMILE programmes to measurements of language competence through organizations based in other countries such as the University of Cambridge Local Examinations Syndicate, Alliance Francaise or the Goethe-institut. Certification such as this can be regarded as enhancing learner’s curriculum vitae. But in addition, there certainly are other options which become increasingly attractive if students experience forms of CLIL/EMILE and the linked activities which may ensure such as increased contact with people in other countries through project work or travel. The most obvious is the European Language Portfolio.

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<sup>160</sup> It is hard to imagine how young learners are taught languages without it being mainly content-based, but during the course of this study it has been suggested that some types of formal language learning are indeed heavily form-based even with young learners.

<sup>161</sup> InterTalk. Jyväskylä:University of Jyväskylä

### Catalyst for School Development

Some schools have come under great pressure to adapt to socio-economic forces, both positive and negative, in recent years. This situation is sometimes complicated by the apparently increasing use of criteria-based evaluation systems by which the performance of schools is judged. It affects some national educational systems more than others but does result in schools looking for new means by which to enhance their profiles in the most cost-effective way available. CLIL/EMILE may be adopted to fulfil such ambitions.<sup>162</sup> However, there is a risk that successful CLIL/EMILE delivery in a given school can lead to demand outstripping supply as parents perceive the gains that could be gained.<sup>163</sup> This, in turn, could lead to poor practice through hasty and ill-considered implementation, but generally the impact on the school environment as a whole is reported as positive.

One of the more surprising outcomes found in the work (2000-2001) leading to development of the CLIL Compendium was the argument put forward by teachers in various countries that CLIL/EMILE leads to 'diversification of methods and forms of classroom practice'.<sup>164</sup> During compilation of some of the case profiles in this report it is particularly noticeable that the introduction of CLIL/EMILE is the platform by which desired change in school change is achieved, which might not have been feasible

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<sup>162</sup> To introduce CLIL/EMILE so as to enhance school profile may be a temporary major goal, as for example, in rejuvenating a school which has problems with attracting students. It may also lead to negative outcomes if the decision to teach through CLIL/EMILE is top-down and not supported by both staff and availability of extra resources, particularly during start-up. There are some reports received during compilation of this report that schools may become attractive which teach through a foreign language towards international certification such as the International Baccalaureate because of a lack of confidence in the national school system in question. Informal assessment from one European IB regional office concurs with the argument that string growth is anticipated in parts the EU zone.

<sup>163</sup> In some studies parental expectations have been noted as unrealistic particularly when terms equivalent to bilingual education or immersion are used to promote programmes because they imply 'full' competencies.

<sup>164</sup> Marsh, D., Maljers, A. & Hartiala, A-K. 2001. Profiling European CLIL Classrooms. Jyväskylä:University of Jyväskylä

otherwise. Shifting towards learner-centred methods is common in some cases, and towards modularity or theme-based learning typical of others.<sup>165</sup>

In addition, the trans-cultural dynamic of the content of some curricula topics can lead to introduction of CLIL/EMILE (for example where schools are linked trans-nationally in project work). Alternatively, it may be CLIL/EMILE which can lead to introduction of such content (for example, there is argument now for development of a European core educational module, available in different languages and exploited through CLIL/EMILE, which covers issues relating to geography, history, and social studies).

Finally, it is worth noting that much language learning, if not most in many cases, will actually take place outside the classroom. In the language learning lesson, or through CLIL/EMILE, there is always a predominant objective of giving the student a hunger to learn the language in question. Once the self-confidence is established, and the basics of the language learnt, it is possible for the student to voluntarily engage in learning and development activities outside the classroom in fully naturalistic environments. By establishing a positive outlook towards additional language learning, CLIL/EMILE can also promote pluricultural (intercultural) awareness, tolerance and understanding.

### Added Value Revisited

Not trilingualism for the sake of its self but multilingualism for some other goal which is education<sup>166</sup>

It could be possible that greater allocation of resources into additional language teaching could enable European Union member states to reach the primary language learning objective for each school leaver to have competence in three community languages (1+>2). However, we would still face the question of whether largely instructional contexts where language learning is intentional and focused on

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<sup>165</sup> See, for example, Kohonen, V. 1994. Teaching Content through a Foreign Language is a Matter of School Development. In Räsänen, A. & Marsh, D. (eds.) Content Instruction through a Foreign Language. Jyväskylä: University of Jyväskylä

<sup>166</sup> Hugo Baetens Beardsmore in InterTalk. Jyväskylä: University of Jyväskylä

developing explicit declarative knowledge will serve the interests of a broad range of learners in developing differing types and levels of competence. In addition, allocation of resources into one educational field inevitably means withdrawing similar resources from another. This can make the processes of change complex, slow, and ripe for intransigence.

To provide a dual-focused learning environment whereby the student learns a subject and language simultaneously, is in itself an added value resulting from CLIL/EMILE simply because of the efficiency in terms of time investment and educational outcomes.

The kinds of activities they were involved in with history and geography meant that they had to develop their analytical skills, their reflective skills, their hypothesizing skills, and they learned to be much greater risk takers in terms of their own linguistic confidence.<sup>167</sup>

Depending on type and context, CLIL/EMILE may benefit the individual on a personal and professional basis. It can also be viewed in terms of societal and cultural benefits, particularly with regard to mobility, and overall improvement of communication between various language users.

## **CHAPTER 6: CLIL/ EMILE IN EUROPE: Future Prospects**

### **Synopsis**

During 1996, a small group of experts from different backgrounds across Europe were asked to give their views on the future of CLIL/EMILE up to the year 2005.<sup>168</sup> In 1998, 54 key professionals from 17 European countries gathered in Strasbourg for a think-tank on the future of CLIL/EMILE.<sup>169</sup> Statements from both sources contain a rich source of insight that are reviewed issue-by-issue, through quotation, summary, and comment, in terms of what we know now about the present, some seven years later.

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<sup>167</sup> Do Coyle in InterTalk. Jyväskylä: University of Jyväskylä

<sup>168</sup> Marsh, D., Marsland, B., Maljers, A. 1998. Future Scenarios in Content and Language Integrated Learning. Jyväskylä: University of Jyväskylä & The Hague: European Platform for Dutch Education.

<sup>169</sup> The think-tank report was published as Marsh, D. & Marsland, B. (eds.) 1999. CLIL Initiatives for the Millennium. Jyväskylä: University of Jyväskylä

These cover Problems & Solutions; Establishing European Types; Reliability & Confidence; Mainstreaming; Learning Strategies; Modular & Theme-based Curricula; New Technologies; Teacher Professional Development and Stake-holding.

### Framing the Future

We tend to forget that our (westernised) educational systems...transmit a largely national culture and are primarily vernacular systems with much emphasis on national traditions, national values and a national language... just as we take it for granted that the ordinary man or woman in all westernised countries is literate and numerate in terms of his/own society, in about fifty or hundred years' time it might perhaps be regarded as a matter of course that s/he has command of at least one other language.

(E. Hawkins)<sup>170</sup>

The need to establish the normalcy of plurilingualism remains a challenge for many national educational policies on foreign language teaching.

The fact that the teaching of foreign languages has expanded to encompass larger sections of the population, including both younger and adult learners, means that language teaching has become increasingly more institutionalised. Like any system, it requires systematic planning and evaluation. The advent of content-based language teaching (content and language integration/CLIL, bilingual education) brings in a new component which needs to be fitted in the existing language teaching system. Systematic attempts to define a national policy of foreign language teaching are, however, of relatively recent origin.<sup>171</sup>

It seems that a major development in education in general, and in language education as a specific instance, is a growing realization of itself as a social institution, as a social system that serves some fundamental social desires, needs and functions. Language teaching serves basic communication needs, and as its importance tends to increase all

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<sup>170</sup> Hawkins, E. 1996. 30 Years of language Teaching. London: CILT quoted in Coyle, D. Content and Language Integrated Learning; A developing British Perspective. As in Endnote 2

<sup>171</sup> Cf. Takala, S. 1993 Language planning policy and development of FL proficiency in Finland. In Huhta, A., Sajavaara, K., & Takala, S. (eds.) language Testing: New Openings. pp.46-54, Jyväskylä: University of Jyväskylä. See also Takala, S. 1993. Language policy and language teaching policy in Finland. In Sajavaara, K., Lambert, R.C., Takala, S., & Morfit, C.A (eds.) National Foreign Language Planning: Practices and Prospects. pp. 54-71. Jyväskylä: University of Jyväskylä.

the time, it is more and more acquiring the characteristics of any institutionalised process... Language teaching is not only the activity of individual teachers – it is a system of activities. In order to understand it as a system, we need to realize its boundaries, its central purposes and its position in a larger context. We must be aware of its various sub-systems and of their inter-relationships.

(S.Takala)<sup>172</sup>

This author then discusses a systems approach to language policy planning and implementation in relation to CLIL/EMILE. He argues that there are several levels on which CLIL/EMILE should be handled to ensure that it is properly incorporated into the national provision for foreign language teaching. These are societal, educational system, strategic, tactical, and finally as a service for pupils/students. He argues his case for the future as follows:

#### Societal

CLIL should be properly incorporated into the national provision for foreign language teaching. There should be at least a broad legislative framework which defines the status of CLIL; the rights and obligations of the schools, teachers and pupils/students; the nature of examinations and certificates obtained from CLIL; the financial support available for CLIL. One crucial aspect of CLIL should be clearly spelled out: how good should CLIL teachers' proficiency in the language of instruction be, and how could that level be reliably checked?

#### Educational Systems

There should be more specific guidelines for how an infrastructure will be built to support CLIL. There should be more specific documents, prepared by groups of experts, to describe the rationale and the goals of CLIL in (a) country. Like any other innovation, CLIL must be related to the national context, otherwise the chances of success are diminished and the probability of problems increased. Other groups should look into the question of teacher training, teaching materials, assessment and so on.

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<sup>172</sup> Takala, S. 1998. Preface. As in Endnote 1.



### Strategic

The scientific community (applied linguists, language educators, teacher educators, etc.) should be involved in helping the implementation of CLIL by cooperating in the development of a specific curriculum for CLIL. This would define various approaches to how content and language teaching/learning can be integrated in an efficient manner. Planning a system for CLIL teachers' basic education and in-service education would be the task of another group. Preparation and adaptation of teaching materials should be started early enough, and ways of doing this should be discussed (e.g. cooperation with domestic and foreign publishers). Testing and examinations should be dealt with by another group of specialists.

### Tactical

Schools need to develop their own strategic plan for CLIL: e.g. its goals, its syllabus, its organisation and resources, resources for materials and teachers' in-service education, and assessment. The schools should also have an internal monitoring system to evaluate how the goals are fulfilled (= how the curriculum is implemented) and to facilitate further development work.

### Educational Service

CLIL is an educational service for pupils/students. It is they who realise the curriculum through their learning endeavours. Effective learning requires teacher support but also, more fundamentally, active learner involvement. CLIL probably sets even more demands on learner self-directiveness than more traditional forms of study. For this reason, it is advisable to incorporate the learner perspective from the beginning and have a learner development component built into CLIL.

(S. Takala)<sup>173</sup>

These issues, outlined in 1996, will now be examined in terms of other commentary and what we can see happening in the present. In preface, it is worth noting the point that national policies of foreign language teaching are of relatively recent origin. Recommendations and objectives on community language learning made at the European level will inevitably be received across the breadth of the member states' education systems according to how prioritised additional language learning is in any

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<sup>173</sup> Takala, S. 1998. Preface. As in Endnote 1.

given context. If the learning of languages is emphasized as a national need, but not as a national priority, then innovations such as CLIL/EMILE will have considerable difficulty in making advances.<sup>174</sup>

There are now signs, even in the larger countries, that there is political recognition, and possibly will, at a societal level, to upgrade and diversity levels of foreign language competence across a broad spectrum of a given population. There are also indications that the current of interest shown towards integration of curricula content in education<sup>175</sup>, which became particularly strong in some countries in the 1990s, will continue to grow.

There is a view that some subjects at certain levels should not be compartmentalized within a curriculum. Integration is often connected to the notion of relevance because as teachers and students know, without relevance it can be hard to achieve meaningful learning.<sup>176</sup> The impact of the new technologies and its increasing availability, particularly in homes across Europe, means that young people's attitudes towards accessing real-life in education, as opposed to simulation, will increase rapidly. One could argue that one of the major influences on educational change that we can see now in some countries is partly a response to the 'mindset' change of the younger generations through access to the Internet.

Interest in CLIL/EMILE is linked to this movement. Experimenting with vehicular languages in the curriculum does not stand alone as a solution to achieve higher levels of plurilingualism. Rather, it is part of a slow but steady overhaul of education that looks likely to gather pace. The evidence for this is in activities now being seen across Europe at the educational systems, strategic, and tactical levels.

Some of these will now be commented on issue-by-issue.

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<sup>174</sup> CLIL/EMILE has been identified as being particularly active in certain member states. These tend to be small and in the case of Austria, Finland and Sweden, relatively new members. These are also societies that have prioritised the importance of learning languages across the population. Larger countries, notably Germany, France and Italy are also now showing signs of interest in political discourse and actions, in ways of addressing problems of monolingualism. These countries are also exploring means by which to implement CLIL/EMILE in mainstream education.

<sup>175</sup> For example, the movement towards 'modularity' in Italy.

<sup>176</sup> Marsh, D. Inter-linking Initiatives. As in Endnote 2.

### Problems & Solutions

Europe has a long tradition in the teaching of foreign languages in secondary education and even, in some countries, in primary schooling. But the tradition flatters to deceive, as often there is little relation between the time and the effort dedicated to these teachings and the results obtained. Such deception has led to constant changes in the teaching methods... in the seventies a change was initiated in the methodology of second language teaching (communicative language teaching) which was to have lasting effects... However, while the introduction of the second language through (communicatively-oriented) activities, as is attempted at the pre-school stage, might be very simple, the repetition of these activities in later years makes them somewhat artificial and students soon lose interest in them... the next step was 'task-based approach', using the foreign language for some kinds of school activity, and from here to using the foreign language as the vehicle for teaching certain subjects in the school's curriculum... teaching in a foreign language will continue to grow as (it) represents the most effective means of acquiring a thorough knowledge of a foreign language.... ( and can serve as a stimulus for certain aspects of intellectual development).

(M.Siguán)<sup>177</sup>

Unfortunately, especially in larger European countries language teaching has degraded in recent years. This is, of course, partly due to financial restrictions... and partly to the belief that knowing English as a foreign language is enough for the average school leaver. The lack of interest in learning languages and in promoting language learning has also very much to do with the lamentable state of language teaching itself, however. It is clear that with our present approach to the teaching and learning of foreign languages which Baker<sup>178</sup> ironically but appropriately characterises as drip-feed education, we will never achieve multilingualism in Europe. It is absolutely necessary to reform language teaching.... What is new is the way in which different language learning approaches which have developed in isolation, are brought together in order to promote more efficient language teaching and multilingualism... 'learning by

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<sup>177</sup> Siguán, M. 1998. The use of second languages in teaching: a review of past and present attitudes and future prospects. As in Endnote 1

<sup>178</sup> Reference to Colin Baker, School of Education, University of Wales, Bangor

construction' (is) entirely different from 'learning by instruction', which is still the most characteristic feature of the mainstream classroom.<sup>179</sup> There can be no doubt that the constructivist paradigm will replace instructivism in the near future.

(D. Wolff)<sup>180</sup>

As outlined in Chapter 1 of this report, the types of dual-focused learning typical of CLIL/EMILE is viewed are seen as a pragmatic and worthwhile response to the educational demands of the present day. To teach more young people, more languages, with more skills-based competencies, requires turning aspirations into concrete can-do realities. The reported successes increasingly voiced during the last five years, even if unsubstantiated by empirical research in most cases, are likely to become increasingly of interest to stake-holders as they search for ways that can turn the language problem endemic in some parts of Europe, into language potential.

(We need to) develop the increasing CLIL momentum by harnessing the creative force of confident and experienced practitioners with a united strategy for involving, at all levels, more professionals new to CLIL. For me this constitutes a pragmatic way forwards.

(Do Coyle)<sup>181</sup>

It has been said that a common timeframe for introducing changes in education can be viewed as a 10-15 year cycle. The fusion of interest in CLIL/EMILE whereby differing interest groups started taking interest in its potential could be regarded as gained pace around the mid 1990s. From then through to the present, particularly in the last 3 years, it is believed that there has been a marked increase of interest in localized applications.<sup>182</sup> It is assumed that this interest will continue to gather momentum, particularly if it supported by national authorities in educational systems that offer

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<sup>179</sup> The offer refers to the work of Mercer, N. 1995. *The Guided Construction of Knowledge*, Clevedon: Multilingual Matters just before this extract.

<sup>180</sup> Wolff, D. 1998. *Languages across the curriculum: A way to promote multilingualism in Europe*. As in Endnote 1.

<sup>181</sup> Coyle, D. 1998. *Looking forwards: moving on*. As in Endnote 1

<sup>182</sup> This is a personal deduction, based on increase of information flow, publications, research and other activities.

some degree of curricular flexibility and school autonomy.<sup>183</sup> Assuming the applicability of 10-15 year project cycles in education, it would be possible to suggest that European CLIL/EMILE might reach its watershed around 2010 because the problems will not abate without solutions. The European languages dilemma allows adaptation of an adage 'necessity is the mother of CLIL/EMILE'.<sup>184</sup> Apart from assuming that the new technologies will radically re-define language learning, there is little chance of finding solutions without introduction of these types of methodologies.

### Towards Establishing European Types

Given that there is a great diversity of language contexts, educational provision and perceived scholastic needs amongst the diverse communities of Europe, it is impossible to provide a blueprint for language education that could serve as a single model.

(Hugo Baetens Beardsmore)<sup>185</sup>

The popularity of such teaching (CLIL/EMILE) has led to the tendency that what has worked well in one setting can be proposed as a working model in all other settings. The reality is quite the reverse – in each setting it is necessary to begin by defining the aims and by drawing up a list of available resources, and with this information to plan the teaching method used.

(M.Siguán)<sup>186</sup>

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<sup>183</sup> Heavily centralized educational systems such as in present-day England are very difficult environments for introducing innovations such as CLIL/EMILE into mainstream education. Coyle (1998) argues that '*current provision in the UK is limited... linguistic competence in a foreign language whilst perceived a s anational need is not an education priority...Britain's inheritance of the Anglophone tradition, and the desire to suppress the heritage and commonwealth 'minority' languages such as Urdu and Punjabi, weigh heavily upon innovative and radical reform...an unsympathetic national examination system refuses to recognise subject competence in any language other than English...the statutory 5-16 (years) national curriculum in English schools is becoming increasingly prescriptive, centralised and evidence-based.*

<sup>184</sup> Quoted earlier as 'necessity is the mother of bilingual education' by Haugen (1972) The stigmata of bilingualism in The Ecology of Language. Stanford: Stanford University Press.

<sup>185</sup> Baetens Beardsmore, H. 1993. Bilingual Learning: institutional frameworks – whole school policies. Workshop 12A, Bilingual Learning in secondary Schools: Learning and Teaching Non-language Subjects through a Foreign Language. P.39. Strasbourg: Council of Europe.

What is new is that it (CLIL/EMILE) brings together concepts which have been developed in different parts of the European Union.

(D. Wolff)<sup>187</sup>

Teaching in a foreign language has existed for many decades in Europe. There are infamous examples of excellence in most capital cities, and certain other localities.

Names such as the Lycée International de Saint-Germain-en-Laye, Lycée ferney-Voltaire Ecole Active Bilingue Jeanine Manuel, Geneva Anglo-French School, Kennedy School Berlin, international schools, the Franco-German schools, and the European schools, regularly surface in this regard. More recently the spread of International Baccalaureate schools (c.300 in Europe) have also raised the profile of schools that teach through a second/foreign language to some if not most of their pupils.

But teaching in a foreign language may differ enormously from teaching through a foreign language. One thing particularly positive about the European experience of CLIL/EMILE is that at the early experimental stage the locus of control tends to be in the hands of practitioners.

The fulfilment of this dream (exchanges, integration, immersion) is possible only on condition that the teacher, the main agent of innovation in our stable educational world, possesses necessary inclination, willpower, capacity and resources. As theoretical research in linguistics, psychology, pedagogy and language teaching is undergoing increasingly rapid development, the teacher must of necessity be the mediator between theory and practice – otherwise the gulf separating the two will become ever wider and deeper.

(J.van Ek & R. Richterich)<sup>188</sup>

CLIL/EMILE denotes the methodologies that are used to teach both subjects and languages in a situationally-specific integrated framework. What has been happening over the past decade is that situational frameworks have been introduced and

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<sup>186</sup> Siguán, M. 1998. The use of second languages in teaching: a review of past and present attitudes and future prospects. As in Endnote 1

<sup>187</sup> Wolff, D. 1998. Languages across the curriculum: A way to promote multilingualism in Europe. As in Endnote 1.

<sup>188</sup> Van Ek, J. & Richterich, R. 1989. Research and development in the perspective of educational change. Language Learning in Europe: the challenge of diversity. Strasbourg: Council of Europe.

increasingly tailored for European contexts. As practitioners and researchers increasingly articulate the methods used we can see CLIL/EMILE coming of age as a distinctly European socio-pedagogic approach tailored for European contexts.

### **Reliability & Confidence**

As seen in Chapter 2 of this report, there remains insufficient empirical evidence of the impact of differing types of CLIL/EMILE across Europe. However, there are signs that research communities in different countries are beginning to take a more active interest. The very fact that CLIL/EMILE is trans-disciplinary has itself been a key reason why researchers have not taken as much interest as might have been supposed. CLIL/EMILE does not fit into ‘compartmentalized’ institutional frameworks which, at university level at least in some parts of Europe, are not renowned for responding swiftly to change. Is it languages? Is it education? Is it sociology, education, psychology? As inter-disciplinarity permeates thinking in research organisations, so we can expect the spotlight to fall on forms of European CLIL/EMILE.

Some exemplary work has been done,<sup>189</sup> and very promising studies on important facets of CLIL/EMILE impact are now ongoing, but the final verdict is not in yet. A single major trans-national study on primary and secondary level, medium and low exposure – with key variables controlled – could be of fundamental importance in terms of showing evidence to satisfy the question does it work? An unsuccessful attempt to secure funding for such a project was made by a consortium of universities in 2000 but it is likely that further applications will be submitted. If successful, then perhaps the first hard findings on European CLIL/EMILE strands, implemented across borders, might be available by 2006.

There are other issues here relating to the notion of confidence. At the grassroots there is often confidence, if not outright enthusiasm, for CLIL/EMILE. If educational authorities are responsive to ‘education as a service’ then such interest should be responded to through permission to experiment and implement, and so forth. We are

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<sup>189</sup> E.G. There are numerous studies published which are significant in, for example, Luxembourg, Finland, the Netherlands, Germany, Sweden, UK amongst others

not going to discover if CLIL/EMILE works in specific localities unless opportunities for implementation are forthcoming. The popularity of the approach amongst parents, learners and other stake-holders should be utilized to improve not just language learning, but education. A general trend towards client-based cultures in education, as in other public services, suggests that the voices of the grassroots may become increasingly listened to in the future.

Confidence can also be nurtured through ‘speaking in different tongues’ – namely communicating the validity of CLIL/EMILE in terms understood by diverse stakeholders. One most obvious factor is economic. It is necessary to articulate that there is a capital gain to be found by facilitating and investing in this type of educational methodology. There have been some small-scale attempts at this in the past but an empirically-based analysis, perhaps put into the context of accession countries and the impending increase in the number of official EU languages, could be most beneficial. It is possible that such analysis will be forthcoming because so many issues of urgency need to be addressed in the near future on linguistic diversity, multilingualism and plurilingualism in Europe.

Once described as a growth area in educational linguistics,<sup>190</sup> there is a very pressing need for communication with educational authorities, particularly those divisions responsible for examination systems. It would seem that unless one can have dialogue between, for example, the examining boards and the practitioners in bilingual education, it will still be a long time before content and language integrated learning can really take off as a more generally widespread phenomenon.<sup>191</sup> As of now it is difficult to know if and when such dialogue will take place. It is crucially important for medium to high exposure types, but not so much in terms of smaller-scale theme-based strands and modules.

Reliability and confidence can be established through research, communication and evidence of quality assessment leading to validation and recognition. These have been

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<sup>190</sup> Baetens Beardsmore, H. M;anipulating the variables in bilingual education. In Buiteveld, A. 1997. Report on the Conference on European Networks in Bilingual Education. The Hague: European Platform for Dutch Education.

<sup>191</sup> Baetens Beardsmore, H. 1999. La Consolidation des Expériences en Education Plurilingue / Consolidating Experience in Plurilingual Education. As in Endnote 2.



developing steadily in, and across, some countries over the last decade and it is anticipated that the pace will quicken because of the breadth of experimentation increasingly reported in some countries.

### **Mainstreaming**

Schools, like learners, are infinitely variable.<sup>192</sup> The mainstreaming of CLIL/EMILE is probably a direct result of the grassroots movement that is typically the main driving force for its implementation.

We should strive at all costs to ensure that the benefits.... and the mastery of foreign languages do not become the social preserve of the privileged few. I believe there are two ways in which this might be avoided. The first recognises that in order to be able to offer teaching in which the foreign language is the vehicle, it is not necessary that the majority of teachers be capable of undertaking the task... the second suggestion takes into consideration the intensive use of current means of communication.

(M.Siguán)<sup>193</sup>

The perceived and reported value of small-scale exposure and the increasing availability of the new technologies are help ease introduction of this approach into mainstream education.

In some countries, education expanded in mainstream education during the 1960s-1970s. This meant that a significant cohort of people who entered the profession at that time is now in the process of retirement. It has been argued<sup>194</sup> that this may result in recruitment of younger teachers who, in turn, may be more receptive to experimenting with new methods such as CLIL/EMILE, and have higher levels of foreign language competence.

Mainstreaming CLIL/EMILE will probably be a slow and possibly arduous process in some countries, but in others much easier. Learner entitlement is a key issue here because in the past the approach has only been available to privileged, or more able

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<sup>192</sup> Adapted from Clegg, J (ed.) 1996. Mainstreaming ESL. P. 237. Clevedon: Multilingual Matters

<sup>193</sup> Siguán, M. 1998. The use of second languages in teaching: a review of past and present attitudes and future prospects. As in Endnote 1

<sup>194</sup> Nixon, J. communication on national surveys in Sweden.

learners, and as we are seeing through the examples of European CLIL/EMILE, it appears to serve the interests of the whole ability range.

If it had not mushroomed in mainstream education, CLIL/EMILE would have remained a sidelined experience for the privileged, gifted, or for those in exceptional circumstances. Now that it is being experimented with in mainstream education, it is anticipated that it will continue to grow. This could be slow, as schools assess strategies, resources and merits of the approach, or rapid if sanctioned at a high level and otherwise given impetus by regional or national authorities.

If CLIL is to have a future in mainstream education, then it is essential that all interest groups see that they are stakeholders in the provision of linguistically-enhanced education for the benefit of the wider society

(Marsh.D., Marsland. B., Nikula, T) <sup>195</sup>

A fundamental impetus for CLIL/EMILE may not lie within the school, or educational authority. There is clear evidence that learners in mainstream education are more exposed to foreign languages and mobility than before. The ability to communicate to some extent in another language appears to be establishing itself as 'normal'. As it becomes normal for people to want to be able to use more than their mother tongue, so the desire for educational provision to nurture and facilitate this will become stronger.

### Learning Strategies

On the whole, mainstream language teaching is fairly traditional in Europe even when it is based on communicative principles. It does not promote the language competence necessary in a multilingual Europe, and it does not take into account the knowledge available on language learning in psychology and learning theory... Both theoreticians and experienced language teachers have known this for a long time.

(D. Wolff) <sup>196</sup>

In order to maintain their current standards of living, it is generally agreed that the rising generation will need to exhibit qualities which have, perhaps, not previously

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<sup>195</sup> Marsh, D., Marsland, B. & Nikula, T. 1999. CLIL: a review of current thinking. As in Endnote 2

<sup>196</sup> Wolff, D. 1998. Languages across the curriculum: A way to promote multilingualism in Europe. As in Endnote 1

been valued so highly. Among these qualities are independence of thought, an openness to new ideas, a willingness to try new ways, to experiment, to think laterally and make connections across many disciplines, to be prepared to take the responsibility for their own lives and futures

(J. Nixon)<sup>197</sup>

As societies and cultures evolve so must educational provision. This era shows widespread attention being paid to helping learners develop means to problem-solve and master learning items independently. The types of integration seen in education often work towards contemporary understanding of learning<sup>198</sup>:

- ◆ Human comprehension and human learning are seen as active processes of construction in which both perceptual stimuli and the learner's prior knowledge are involved
- ◆ Learning is an autonomous process which the learner carries out to a large extent by him/herself
- ◆ Learning is a process for which the learner must assume responsibility. Responsibility develops only if the learner understands the importance of the learning item for his/her learning process
- ◆ Learning is an explorative process which the learner carries out within a framework of hypothesis building and hypothesis testing
- ◆ Learning is a process which is particularly successful when it takes place in groups
- ◆ The result of a learning process is different for each learner, because the learner's prior knowledge is always subjective knowledge and is different in each learner

CLIL/EMILE impacts on these indicators of best practice in teaching and learning. As such, it could be viewed as an appropriate response to what we now know about how

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<sup>197</sup> Nixon, J. & Kibe, J. 1998. Visions from Sweden – towards competence in international communication. As in Endnote 1

<sup>198</sup> Wolff, D. 1998. Languages across the curriculum: A way to promote multilingualism in Europe. As in Endnote 1

to learn both in terms of language and other content. Therefore increased interest in its implementation is anticipated.

In terms of young learners, CLIL/EMILE also serves as an enabler<sup>199</sup> to

- ◆ Help children overcome fear, ethnocentrism and prejudices with respect to other cultures
- ◆ Help develop more possibilities for linguistic and intercultural communication
- ◆ Raise interest in languages and make children conscious of the equality of languages
- ◆ Contribute to the understanding of the children's own mother tongue and its specific features
- ◆ Encourage children to experiment with language and to systematise their observations

Types of approach which aim to promote language and cultural awareness<sup>200</sup> and others such as in case profile 2 of this report involving 'language encounters', probably represent an area of considerable growth for CLIL/EMILE in Europe. But 'discovery learning', 'problem-base learning', or, for example, 'explorative learning', will also possibly become increasingly commonplace. These are likely to be realized as a form of cross-curricular project or theme-based modular CLIL/EMILE with older learners. Another sector, vocational education, as shown in cases 14 and 15, is also likely to become increasingly active.<sup>201</sup>

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<sup>199</sup> Thürmann, E. 1991. *begegnung mit Sprachen in der Grundschule*. *Schulverwaltung* 8, 182-187, cited in Wolff, D. 1998. *Languages across the curriculum: A way to promote multilingualism in Europe*. As in Endnote 1.

<sup>200</sup> One example is *Evlang (Lingua Socrates 1998-2001)* M.Candelier, Université René Descartes Paris 5, France

<sup>201</sup> Both primary and vocational were viewed as growth areas in the CEILINK Thinktank on CLIL/EMILE, Strasbourg, October 1998, reported in Marsh, D. & Marsland, B. (eds.) *CLIL Initiatives for the Millennium*. Jyväskylä: University of Jyväskylä

**Modular & Theme-based Curricula**

If CLIL is seen as a pedagogical goal, i.e. to teach both languages and subjects within an integrated framework, it may be that due to the specificities of our national context (UK) several stages along the continuum need to be developed initially – ranging from a wide spectrum of short-term modules and cross-curricular projects to intercultural programmes and medium term courses...

(Do Coyle)<sup>202</sup>

At a tactical level, kindergartens, schools and colleges could explore delivery of CLIL/EMILE through low exposure modules, or forms of inter-disciplinary theme-based courses. From language showers and language encounters at kindergarten, pre-school or early primary, through to modules at secondary, these would be practical and theoretically sound platforms for the introduction of the approach. There are an increasing number of examples being produced and introduced across Europe.

More children or even all children could be offered the experience of using the foreign language as the working language by offering modules in the foreign language on a more flexible basis in as many subjects as possible.

(Ingeborg Christ)<sup>203</sup>

Delivery of CLIL/EMILE has tended to be according to availability of target language-speaking teachers, rather than according to subject or theme first and foremost. There are signs that this situation will change as experimentation continues and any initial but not sustainable interest by staff declines (following a sort of ‘honeymoon period’). In addition, as we learn more about the theoretical underpinnings of successful practice it is more obvious that certain subjects, and themes within subjects, are more conducive to successful impact than others.

It is important to consider CLIL as one part of a general trend affecting the teaching methodologies found across the curriculum. The key terms here are integration and inter-disciplinarity.

Marsh, D., Marsland, B. & Nikula, T)<sup>204</sup>

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<sup>202</sup> Coyle, D. 1998. Looking forwards: moving on. As in Endnote 1

<sup>203</sup> Bilingual teaching in Germany in Fruhauf, G., Coyle, D. & Christ, D. (eds.) Teaching Content in a Foreign Language: Practice, Perspectives in European Bilingual Education. The Hague: European Platform for Dutch Education.

Because CLIL/EMILE invariably involves dual aims, and is an educational approach in its own right, the development of purpose-designed modules will probably overtake the idea of simply adopting a single subject for the purpose in cases of low exposure. In higher exposure we may see increasing development of themes within subjects, or across subject fields, but not whole subjects themselves. In terms of high exposure delivery is likely to continue to be subject-based but perhaps with more recognition of the value of trans-linguaging and code-switching then might presently be the case.

### **New Technologies**

Every assessment of the achievements...must be mindful that it is not only a 'foreign language component' which is added to a mainstream subject, but that new cultural, transcultural and non-cultural dimensions, mediated through the foreign language, gain access to the concepts and the teaching of these subjects.

(Wolfgang Hallet)<sup>205</sup>

Access to the Internet at home is estimated at about 60-80% in certain countries<sup>206</sup>. In addition, availability of equipment at school appears to be increasing. In terms of both language learning and attitudes towards the immediacy and relevance of education, young people are immersed in a form of generational leap from their forebears. The impact of the new technologies is certain to increase in breadth and scope. This suggests a corresponding interest in both CLIL/EMILE, and greater self-learning of languages and content outside the school classroom.

In addition, as seen in Case 17, the availability of ever-more advanced hard and software, and the inevitable reduction of costs as market forces determine, will increasingly offer radical solutions for not only overcoming resource problems for schools, but also enhancing trans-national, and thus trans-linguistic educational platforms.

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<sup>204</sup> Marsh, D., Marsland, B. & Nikula, T. 1999. CLIL: a review of current thinking. As in Endnote 2.

<sup>205</sup> Hallet, the bilingual triangle. A tool for curriculum development, and for materials and lessons design. As in Endnote 2.

<sup>206</sup> From Scandinavian case profile notes for Finland and Sweden

The future of CLIL/EMILE in Europe is inextricably linked to the new technologies. The argument that the Internet would strengthen English to the detriment of other languages, understandable in earlier days, can now be questioned. It has recently been estimated (March 2002) that there is now more Internet traffic in languages other than English.<sup>207</sup> This is probably linked to the expansion of e-commerce. Figures available argue that there are some 228 million users of English, and 339 million users of other languages. Of the latter figure some 192 million people are estimated to be using European languages other than English. Thus it is argued that the potential of the Internet as a plurilingual resource is steadily becoming a reality. Projection estimates for 2003 show English (270 million), Non-English (510 million), of which 259 million would be using other European languages.

A revolution in electronic communications has also created a need for proficiency in multiple languages. The Internet makes global communication available and easy, whether it be for personal, professional, commercial, or other reasons. On the one hand, this has created a particular need for proficiency in English as a lingua franca on the internet. On the other hand, as with economic globalization, global communication via the internet has also created the possibility of much greater communication in regional languages. Indeed, domination of the internet by English is giving way to a much stronger presence of regional and local languages as e-commerce takes hold and begins to commit resources to communicating with local and regional markets. In fact, there are presently more internet sites in languages other than English than English. (Fred Genesee)<sup>208</sup>

Thus we can assert that the advent of the 'knowledge society' could, itself, have influence on the demand and success of this type of approach in education and beyond.

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<sup>207</sup> See [www.gltreach.com/globstats/refs.php3](http://www.gltreach.com/globstats/refs.php3).

<sup>208</sup> Genesee, F. 2003 (forthcoming) What do we know about bilingual education for majority language students? In Bhatia, T.K. & Ritchie, W. (eds.) Handbook of Bilingualism and Multiculturalism. London: Blackwell

### Teacher Professional Development

The universities and/or training institutes should develop pre- and in-service programmes for future teachers. Such programmes need to strike a balance between scientifically grounded research and expertise with respect to practical concerns.

(Henning Wode & Petra Burmeister)<sup>209</sup>

Partnership networks linking schools with universities and other interested agencies are likely to expand and evaluate effective bilingual teaching programmes. Electronic communications will enable national school-university networks to work more efficiently.

(Do Coyle)<sup>210</sup>

There has been very little provision of initial or in-service professional development programmes in CLIL/EMILE for teachers, either subject or content. Thus there is clearly a lack of suitably qualified teachers who have certified competence in both a subject and a foreign language. But, there is an increasingly identifiable pool of teachers who consider that they possess, or could possess, professional competence to teach through CLIL/EMILE.

Initial teacher education in CLIL/EMILE is a pre-requisite for consolidating this approach in mainstream education. As of now there are very few European institutions offering such training programmes, but there are parallel types of education in existence whereby future teachers can learn a language and subject simultaneously. These could be developed further as insight into good practice increases.

A range of in-service teacher development programme prototypes have been developed over the past few years, some which have received the support of the European Commission's SOCRATES/Lingua funding. At the same time there have been localized attempts at providing this type of professional development. Information on

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<sup>209</sup> Wode, H. & Burmeister, P. 1998. Priorities for CLIL investment in the forthcoming period. As in Endnote 2.

<sup>210</sup> Coyle, D. 1998. Content and language integrated learning: A developing British perspective. As in Endnote 2.



the breadth and impact of these is not currently available but research is now beginning to be conducted and published. At the same time there is at least one initiative underway which would offer a trans-national higher education qualification for experienced teachers<sup>211</sup> and other mainly national examples that have been operational for a few years.<sup>212</sup> It is possible that further networking will lead to consolidation of experience on what types of input are required for success after the design and testing of prototypes that we have seen tested over the last ten years.<sup>213</sup>

Teacher development is directly tied to qualifications and the bench-marking of teacher competencies. This will allow central decision-making bodies to ensure that attempts at implementation, however successful, do not carry the potential for built-in failure.

#### **Stake-holding**

...lack of coordination between partners which include trainers, inspectors, materials producers and examining boards

(Hugo Baetens Beardsmore)<sup>214</sup>

The time is now right to move into the next stage of development, which is probably the most challenging in the life of CLIL to date. The metamorphosis of CLIL from 'special' to commonplace, from pioneer teachers to competent professions, from polyglot ministries to predominantly monolingual education systems, has widespread implications.

(Do Coyle)<sup>215</sup>

In terms of outreach it is essential that stakeholders are brought together with a common frame of reference which is communicated clearly and supported by theoretically sound arguments for the benefits of CLIL/EMILE. Considering the 'market economy' culture that is increasingly affecting how schools operate in different parts of Europe, the reasons for CLIL/EMILE would need to be in terms not only of education

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<sup>211</sup> ALPME, coordinated through ERASMUS by the University of Pompeu Fabra, Barcelona.

<sup>212</sup> Universities of Wuppertal (Germany) and Nottingham (UK).

<sup>213</sup> For example, BILD, DieSeLL, VocTalk, TIE-CLIL, Tel2L amongst others

<sup>214</sup> Baetens Beardsmore, H. 1999. La Consolidation des Expériences en Education Plurilingue / Consolidating Experience in Plurilingual Education. As in Endnote 2.

<sup>215</sup> Coyle, D. 1999. Looking forwards: moving on. As in Endnote 2.

but also cost-ratio benefits. This is because the major ‘gatekeepers’ are more likely to be senior administrators, possibly responsible for budgets alongside curricula issues, rather than school administrators. If deliverable outcomes can be shown as feasible for a wide range of learners, and types of CLIL/EMILE delivery can be introduced as small-scale endeavours in the first instance, then the grounds for success are laid. There are examples of successful stake-holding liaison in some countries, sometimes to the highest levels,<sup>216</sup> and if circumstances prevail such dialogue and focus is likely to continue.

A key factor here concerns two specific types of stake-holder, namely parents and older students:

The motor is driven by parents, always bottom-up not top-down, innovations in this area have usually come from parental pressure when the system does not meet the educational needs.

(Hugo Baetens Beardsmore)<sup>217</sup>

The influence of parents in increasingly ‘client-based’ educational provision is a force that is likely to snowball in some countries as ‘word-of-mouth’ spreads, even if it is in unrealistic terms about what a school might achieve in terms of providing foreign language competence to pupils and students

There are clearly examples where, once introduced, demand exceeds supply, and in those countries where parents and pupils are empowered, particularly those in which decision-making can be made also at school or regional level, it is likely that the ‘grassroots’ will continue to expand in significance in this respect. In a country where curricula are heavily centralized and autonomy is low, it will be very difficult to see how CLIL/EMILE could be introduced as a bottom-up movement. However, it might be possible to bring understanding of the benefits of this approach to the highest of levels in those countries if circumstances allow, and if it is possible to communicate directly with key interlocutors.

On the basis of information presently available, expansion is viewed as steadily increasing. If this momentum continues then it will need monitoring and support from

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<sup>216</sup> In large countries such as France & Italy, and smaller ones such as Austria, Finland, Sweden, The Netherlands

<sup>217</sup> In interview March, 2002

stake-holders, including national and trans-national bodies striving for ever better provision of education and in that, higher levels of plurilingualism. CLIL/EMILE may not yet be at the starting point as a mass education innovation but if developments continue at the current pace, this point will likely be reached sooner than later, even if in terms of preference rather than immediate implementation due to resources.

## **CHAPTER 7: CLIL/EMILE IN EUROPE: RECOMMENDATIONS FOR GOOD PRACTICE**

Sets of recommendations on the development of CLIL/EMILE can be found in various sources including the 1996 Conference on European Networks in Bilingual Education (The Hague: European Platform for Dutch Education), the 1998 CEILINK Think-tank (Jyväskylä: University of Jyväskylä), and various Council of Europe reports. These tend to focus on localized aspects of successful implementation. An increasing number of references to forms of CLIL/EMILE have also been found in reports and statements linked to recent specialist European languages meetings that tend to be fairly general in terms of examining the potential of CLIL/EMILE. These have all been taken into consideration in this chapter.

The recommendations included here have been drawn up on two levels. Firstly, with respect to harnessing and developing the potential of CLIL/EMILE in terms of outreach and extension of good practice in relation to the European dimension. These are largely based on data analyses and information received during the course of preparing the report. Secondly, according to the national contexts, drawing mainly on existing recommendations made by the CEILINK Think-tank, and partly replicated elsewhere.

In the first set of recommendations concerning the European dimension, each has been considered in terms of feasibility, impact and potential multiplier effects. These are broken down according to a general model of education (introduced in Chapter 6: Future Prospects) which includes the societal level (societies, and the social collective of the European Union); the systems level (member state educational systems); the strategic level (where professional research and practice-based expertise is used to provide specialist insight and development); and practice (the schools, colleges or other learning environments where implementation occurs).

**Societal**

- ◆ That an expert group be commissioned to produce an econometric analysis report on the potential of CLIL/EMILE as a socio-economic driver which explicates languages knowledge as human capital within national economies. Comparison of unit costs of language learning as presently conducted, and those inclusive of CLIL/EMILE according to research evidence of achievable outcomes, would provide investment-oriented analysis. This could be used to build empirical arguments on deliverable outcomes that could influence top-down decision-making on prioritising this type of educational innovation within national contexts, leading to European Community benefits. Such a group would comprise specialists in economics, social policy, statistics, and languages. Financed as a Public Services Contract, reporting to the European Commission, the group would produce an analysis showing the relationship between additional language skills across populations and economic performance, and link this to localised investment in specific types of language education. Synchrony could thus be made linking grassroots pressure and top-down decision-making.
  
- ◆ That a fusion group be created through member states being invited to identify appropriate national policy decision-making bodies, and key experts within them, that have a mandate to handle initiatives related to CLIL/EMILE. Working within organisations such as Ministries of Education, these experts would be asked to report on the viability of introducing or expanding CLIL/EMILE in respective national educational sectors. Having been suitably briefed, preferably in a face-to-face meeting focussed on the potential of the approach for enabling member states achieve the MT+2 formula, experts would submit evaluations to a central body which would then report back to the member states. In such a process specific attention should be given to the significance of limited or domain-specific competencies. Economic arguments, if and when available, would also

support this type of new and combined thrust into national political and administrative constellations.

- ◆ That a member state represented think-tank be created (50-60 people) during the Action Report drafting stage (2003) comprising policy-makers, examination board representatives, publishers, research implementation experts and other gatekeepers, to evaluate the feasibility of pre-determined low exposure forms of CLIL/EMILE at primary, lower secondary, upper secondary and vocational education. This would complement the 1998 researcher-practitioner CEILINK think tank (Strasbourg) and act as a catalyst for strategic development.
  
- ◆ That exchange funding systems be specially geared (for example, through Comenius) towards supporting teachers (content and language) to visit, teach and job-shadow in CLIL/EMILE schools in other countries.
  
- ◆ That European expert bases on CLIL/EMILE combine to form a consortium with which to apply for trans-national research funding through the Sixth Framework 2002-2006 programme in order to identify, examine, and establish solutions for achieving the 1+>2 formula. Plurilingualism does not carry specific reference, and there appears to be preference for large-scale consortia and projects, not commonplace within the culture of language-oriented education, in relation to the founding of the European Research Area. But an attempt should be made to access research funding and establish a basis by which to test the impact of CLIL/EMILE at different levels in member states. This could be done through Theme 7: Citizens and governance in the European knowledge-based society.
  
- ◆ That coordination of communication flow, and strategic implementation, to and between national contexts, be conducted through the European Commission, or a body seen to be operating with its mandate, and

operationalized for a trial period of 3 years, estimated as 1 person at 50% of work load in the first instance.

In so doing the European Commission should also continue to make explicit reference to CLIL/EMILE, as has been seen in the past, because of the influence this can have in terms of national initiatives.

- ◆ That Europe-wide documentation on language learning such as produced by Eurydice, is broadened in the future to quantify schools which systematically teach through a foreign language, and that international comparative evaluations of education such as PISA, include foreign language learning. This would provide comparative data to complement, for example, the widely-cited Eurobarometer, and help support the need for broadening languages education.

### Systems

- ◆ That member state policy bodies responsible for language education be invited to identify local examples of good practice, possibly in conjunction with European Quality Label awards past and present, which can be used as localized 'landmark' examples. If possible, certain performance indicators, common to different environments based on existing situational and operational and outcome variables, could be monitored either by the schools, or a national agency, over a 3-5 year period on the impact and outcomes of CLIL/EMILE in these environments.
- ◆ That it is necessary to find a 'common language' which articulates the methods and communicates the purposes and goals of CLIL/EMILE to policy-makers. Due to the trans-disciplinarity involved, key gatekeepers may be working in compartmentalized and separated fields of responsibility and operation. A short authoritative text could be produced as a 'reflection document', in conjunction with a range of European experts, designed specifically for local ministry of education policy-makers and other gate-

keepers, which succinctly articulates the potential of CLIL/EMILE according to a range of implementation types as a trans-disciplinary endeavour.

- ◆ That CLIL/EMILE be used as an instrument for promoting teacher mobility. This would be facilitated by if national agencies could provide special dispensations on harmonization and recognition of teacher qualifications, even if temporary, for CLIL/EMILE schools. Lack of recognition of qualifications from another member state has been seen to adversely affect salary scales thus resulting in incoming teachers from other countries being disadvantaged. In certain types of CLIL/EMILE attracting and drawing some target language-speaking staff to complement existing non-native speaker staff is recognized as a success factor.

#### Strategic

- ◆ That recommendations be drawn up which indicate the required linguistic fluency of teachers according to Common European Framework of Reference scales in relation to linguistic load of specified types. DIALANG is the best means available for diagnostic testing which could inform teachers about individual proficiency. If some clarification was available on linguistic load required for specific types of delivery, a system would be operational and accessible which would help surmount a major obstacle in CLIL/EMILE development, namely, uncertainty over target language skills because of attitudes towards fluency and native-speaker competencies, and lack of information available for guidance. Promotion of DIALANG alongside a brief explanation for those intending to teach through different types of CLIL/EMILE could have considerable impact, particularly with regard to promoting delivery of CLIL/EMILE in different languages.
- ◆ That thematic CLIL/EMILE units (25+ hours) be constructed to unify content areas in the form of modules, preferably drawing on topics which contextualise the European experience. Such modules which could eventually be considered in terms of an informal form of 'European core curriculum', should be produced by an inter-disciplinary team. These should

be flexible enough to accommodate local-specific input and analysis, and which, once piloted and tested, should be rendered into all community languages for the 3 levels of compulsory education. Produced in close conjunction with certain learner age cohorts, these should include both content and insight into the teaching strategies that could be used in the respective classroom. Thus the modules would act not only as material, but also as a means for developing teacher competence in CLIL/EMILE. In addition, they would act to enhance diversification of languages of instruction. Such modules should draw on topics principally located within the humanities, from subjects such as history, geography, psychology and social studies. Distribution should be facilitated through early partnership with localized publishing companies. Should commercial viability not be forthcoming in the early stages in certain countries due to perceived initial scale, then an Internet Materials Bank, linked to a significant Internet site, could be used in the interim.

- ◆ That a resonance group be formed comprising key experts previously involved with both Council of Europe and European Commission supported assignments and projects relating to forms of CLIL/EMILE (1990-2002). This 'fusion' group would be invited to review the output and implications of workshops, projects, and other forms of research, analysis and development, particularly on professional development programmes and teacher competencies. This could lead to development of a strategy by which to achieve greater understanding of overlapping interest and availability of resources. It could enable bridges to be built between what appear to be, at times, fragmentalized interest groups operating in different capacities and circles but sharing common interests and aspirations. This could not only help unite European expertise, but also lead to greater development momentum and the establishment of a focussed institutional research expert network.
  
- ◆ That a European student research network be established for universities and higher education colleges by which, often working virtually, students



could carry out studies on CLIL/EMILE for graduation or post-graduate thesis work. Communication with tutors would be as standard practice, but an Internet-based network could both trans-nationalize student research through provision of a special interest group, and start providing studies, however modest, on the validity of this approach in local contexts. This could be operationalized at minimal cost through an existing higher education network such as the European Language Council if interest and capacity exists. We are now approaching a period when ever-more student interest is being shown in CLIL/EMILE as a research topic within higher education, and to consolidate this interest through forming an ad hoc Internet-based network would be clearly advantageous.

- ◆ That inter-disciplinary research on existing and the future generation of multimedia interactive technologies for trans-national CLIL/EMILE delivery be conducted by a consortium of universities and the private sector working towards provision of quality cost-effective hard and software for interactive multi-location CLIL/EMILE delivery.
  
- ◆ That existing initial teacher training systems which enable a trainee to specialise in both a content subject and a foreign language (For example, at primary level in Finland & Norway; and at Secondary level in Austria & Germany) be examined and reported on with a view to pan-European extension. In addition, both initial and in-service development courses specific to CLIL/EMILE could be included in such analysis.
  
- ◆ That efforts be made to support bridging the disciplinary gap between language and subject teachers through existing professional networks, indicating the mutual benefits which can result from 'team-building' and 'pairing' in assessing the advantages of CLIL/EMILE.

- ◆ That the base-line data requirements for implementing quality assurance be designed and made available for local adaptation. This could be built on existing frameworks.
  
- ◆ That an attempt be made to clarify the often location-specific difference of understanding between ‘formal language instruction’ and CLIL/EMILE in early language learning. This could improve understanding of similarities and differences between these in discussion on early language learning and describe each in terms of specific labels such as Language Encounter, Language Awareness, Language Teaching, Language Shower, etc. A great deal of quality language teaching with early learners already involves integrating content and language and is called ‘language teaching’ and not CLIL/EMILE. It would be useful to look at this ‘best practice’ in language teaching, reportedly common to some environments more than others, and show that far from being a new and possibly intrusive innovation, at primary level CLIL/EMILE may already exist but under another name. This could have a positive impact on attitudes towards CLIL/EMILE, and ‘language teaching proper’, because if language teaching to this age group is more form-based than functional, then it may be failing to reach optimal outcomes.
  
- ◆ That any efforts to produce a higher education degree system in CLIL/EMILE be given support as and when applicable. A trans-national higher degree programme, designed and implemented by key European centres of expertise in this field could act as a catalyst in establishing a flagship academic programme for European CLIL/EMILE, which could then have a multiplier effect on trans-national initial and in-service education, and on research initiatives.

**Practice**

- ◆ That kindergarten, pre-school and primary schools be given special focus with regard to low exposure of CLIL/EMILE which combines the principles of 'language awareness' and 'language encounter' initiatives.
- ◆ That vocational sector colleges, not only business-oriented, be given special focus with regard to low to medium exposure through CLIL/EMILE which combines sector-specific target language(s) knowledge with job-specific communication competencies. Existing languages delivery, even through newly formulated approaches such as VoLL (vocationally-oriented language learning), is considered frequently insufficient. This is due to resource allocation and time available for 'language teaching'. CLIL/EMILE would allow for greater exposure to 'language learning' without reduction of resources from other parts of the curriculum.
- ◆ That adult education providers should be given special focus with regard to mixed media distance education in CLIL/EMILE which is generational or sector-specific, but not bound to student places of domicile.
- ◆ That copyright-free prototypes of short introductory texts on CLIL/EMILE be made available through the Internet. These could be adapted from existing examples, such as Opening Doors (EYL) or Using languages to Learn and Learning to Use Languages (Lingua A), rendered into other languages, reproduced and used by schools to clearly formulate and communicate their reasons for CLIL/EMILE delivery and intended outcomes.
- ◆ That the value of the inter-relationship between experience of CLIL/EMILE and the European Language Portfolio and, in particular, the European Language Passport, be articulated to schools and learners.

- ◆ That local and possibly long-standing expertise in CLIL/EMILE in, for example the private sector, be invited to feed advice through to public education through ad hoc forms of exchange and dialogue.
- ◆ That schools are encouraged to estimate how little CLIL/EMILE is needed to achieve desired results. It is important that schools examine delivery of CLIL/EMILE in terms of 'how little do they need, how much do we get'.

The second set of recommendations focuses more on national contexts. These are broken down, as in the original CEILINK format, according to focus on learners, practitioners and other stakeholders.

## **LEARNERS**

### Target Language Selection

Although CLIL/EMILE can operate successfully bilingually, it can also be introduced as a tool for promoting plurilingualism in education and beyond. Thus it should not be associated with any one particular language, but viewed as an educational approach to support linguistic diversity. Initial CLIL/EMILE exposure in a widely-taught language can be used as a springboard for later expansion into another widely-taught or less widely-taught language.

### Learner Selection

Criteria selection for CLIL/EMILE streams should not necessarily be based on first or target language competence, because of the significance of learner motivation in achieving successful outcomes with mixed ability groups. Guidelines should be drawn up to facilitate the inclusion of a broad range of learners in a framework that encompasses diverse models. This would help to unlock the potential of CLIL/EMILE and facilitate mainstreaming.

### Study Skills

One commonly-cited additional value of CLIL/EMILE is the enhanced development of learning strategies and skills, which are related to broader cognitive applications. Exposure to trans-disciplinary training in language-specific study skills could enhance the development of specifically subject-related productive skills. This can be achieved through closer integration of first, target and non-language specialists in the curriculum.

### Assessment

Performance assessment of CLIL/EMILE learner performance has to be sensitive to the subject-language duality inherent within many models. Integrated pedagogical classroom learning needs to be assessed using similarly integrated assessment tools. Viewing an examination text from a solely language or subject point of view negates the trans-disciplinary characteristics of CLIL/EMILE. Testing and assessment apparatus need to be introduced which allow learners to show the breadth of their knowledge and skills in relation to both content and language.

### Learner Certification

Formal recognition of learner achievement in certain types of high-activity CLIL/EMILE should be made at national level. Efforts to have such documentation recognised by authorities and institutions trans-nationally should follow.

## **PRACTITIONERS**

### Initial Teacher Education

Initial teacher education in CLIL/EMILE is a pre-requisite for consolidating this approach in mainstream education. Specialised programmes need to be developed which would encourage inter-disciplinarity by providing subject and language specialisation and certification. Such programmes need to be more than add-on modules, and might involve a longer time-frame of study than conventional programmes. They might also require a closer working relationship between training institutions and schools, maximising the development of practitioners' skills in the learning of the linguistic, scientific and pedagogical aspects of the approach. Some existing programmes could be used for reference purposes.

#### In-Service Teacher Education

Experienced teachers of subjects and languages should be provided with the opportunity to move into CLIL/EMILE through the provision of in-service development programmes. The outcomes from these programmes could then also inform the development of curricula for initial teacher education in CLIL/EMILE. A continuing programme of in-service development is necessary for all practitioners, thereby providing up-to-date information concerning advances in the field, and maintaining both subject and language proficiencies. In-service packages should also be seen as a necessary part of context-specific development regionally and institutionally. Some existing programmes could be used for reference purposes.

#### Practitioner Skills Assessment

External systems of quality assurance should be made available regionally and nationally for teachers and schools that wish to have a professional profile or review of competencies and performance. Assessment teams would ideally comprise expertise in both research and practice. Recommendations arising from such assessment would focus on the range of knowledge and skills required for good practice in CLIL/EMILE, which includes factors such as language proficiency, methodological competence and socio-cultural awareness. In addition, part of such assessment would require some focus on institutional capacity and implementation. Practitioners should also be encouraged to engage in continuous self-assessment, using tools such as the DIALANG diagnostic language test and classroom practice review tools, in order to identify successes, weaknesses and developmental areas.

#### Internet Materials Bank

To assist in the provision of quality materials, which could be integrated into a range of national curricula, national Internet Materials Banks could be developed and piloted, preferably in conjunction with the private sector. The Banks should only focus on a small range of modular or topic-based learning materials, specified according to level and language which fit into national curricula. The materials bank should ideally

comprise downloadable resources, which would be designed with a view to flexibility and ease of adaptation, and links to other similar sites. Reviews of other suitable materials in published sources should also be included, alongside guidelines for practitioners to create their own materials.

## **OTHER STAKEHOLDERS**

### Description of CLIL/EMILE Models

It is necessary to define, concretise, and exemplify how CLIL/EMILE can be implemented in different contexts, and have this information produced in a style which is accessible to a non-specialist audience. Brief descriptions of variables and options should be supported by case-study exemplification, with an overview of the range of models implemented. By examining facts drawn from existing experiences, interest groups would be able to select features of established practice which might be suitable for their local situations.

### Curricular Development

Insight into those topics and modules, within subjects, which are reported as being particularly suitable for CLIL/EMILE, should be considered in terms of the development of elements of a curriculum relevant to national contexts

### Breadth of Potential

Local case studies of successful implementation of CLIL/EMILE, ranging from pre-school to higher education, should be carried out to examine the full range of potential of this approach for all age groups.

### Utilising Existing Expertise

Pilot projects should be used to bring together existing expertise and established infrastructures in, for example, specialist schools such as International Baccalaureate, International schools and others. This would establish dialogue and complementarity between these schools and mainstream educational institutions.

### Testing and Evaluating Innovation

Initiatives should be made to include a wider range of expertise in CLIL/EMILE than has previously been the case. Such expertise, generally research-driven, is needed to explore the multi-disciplinary and holistic features of the approach. Objective empirical data is increasingly required to substantiate claims and analysis of such data is instrumental in allowing informed decision-making on future development.

Key issues requiring attention include:

Linguistic multiplier effects of CLIL/EMILE

Concept formation in different languages

Cognition and code-switching

Development of pragmatic and metalinguistic skills

Attitudinal change

Comparative approaches to subjects

Impact on first (and home/heritage) language and cultural identity

Professional and societal long-term impact of CLIL/EMILE

Second language learning/acquisition vis-à-vis CLIL/EMILE

Early learning in a CLIL/EMILE environment

Partial and domain-specific competencies

Methodological integration of languages and non-language subjects

Previous relevant research findings should be brought together with the results from these areas of enquiry, and made accessible to a wider audience. A research inventory collating the national and European experience of CLIL/EMILE would complement



existing data from other continents. It is desirable that some future research initiatives be carried out by teams comprising both researchers and practitioners. These issues are unlikely to be addressed in a meaningful way unless official recognition of the need leads to the injection of targeted national funding.

## **REFLECTION DOCUMENT**

### **Considering the Potential of Content & Language Integrated Learning**

Re: Public Services Contract 2001 – 3406/001 – 001, DG EAC, European Commission

Content and Language Integrated Learning

The European Dimension: Actions, Trends and Foresight Potential

September 2002

Drawing on the contents of the above report, this document has been jointly compiled in order to invite further discussion on the relevance and potential of teaching non-language subject matter through a foreign language in Europe.

### **Introduction**

Content and Language Integrated Learning (CLIL) refers to any dual-focused educational context in which an additional language, thus not usually the first language of the learners involved, is used as a medium in the teaching and learning of non-language content. It is dual-focused because whereas attention may be predominantly on either subject-specific content or language, both are always accommodated.

This approach is currently implemented in differing ways depending on the age-range and location of learners. It is most commonly realized by teachers of foreign languages and those of other subjects, who may, for example, provide ‘language showers’ for 6-10 year olds (involving 30 minutes to one hour exposure per day); ‘language encounters’ for 10-14 year olds (involving experiential blocks of some 40 hours before or parallel to formal language instruction; ‘dual-focused learning’ for 14-19 year olds in

academic streams (involving some 5-10 hours per week); or ‘competence building’ for 16-19 year olds in vocational education and training.

There are many variants now active in European mainstream education differing not only in terms of implementation but also goals. These range from preparing children at pre-school or primary for language learning through language awareness activities, to building self-confidence through skills development for certain vocational sector students who may not have responded favourably to earlier language instruction.

### **Present Situation**

There is a broad consensus that a delivery gap often exists between what is provided as foreign language education, in terms of curricular investment and optimum goals, and outcomes in terms of learner attainment. The importance of having a broad range of young people leaving school with the ability to use languages other than the mother tongue is frequently stressed by member states. However, although some educational systems reportedly outperform those of others, targets for requisite competence in additional languages are not yet being sufficiently reached across the EU.

This provides an opportunity to examine how current approaches to foreign language education, as found in different systems, can be utilized, adapted or enhanced. In so doing it might be useful to view what is frequently considered as a language problem, in terms of language potential, by looking at options available. This document is about one such option that is currently attracting considerable interest across Europe. It introduces an approach for developing additional language competence that is termed content and language integrated learning.

**Development, Change and Good Practice**

Over the last five decades best practice in teaching and learning foreign languages has evolved from emphasis on grammar and translation in the 1950s, behaviourist forms of rote learning in the 1960s and the communicative approach of the 1970s, to those which emphasise form and function in the present day. Put simply, knowledge of a language has given way to pragmatic competence whereby a person has both knowledge and skills for actively using the given language.

Whereas in the 1950s it was often only selected students who undertook additional language learning, by the end of the century such provision was extended to broad school populations. Thus more students were seen to need more language competence, and to achieve this fresh impetus was given by various educational specialists in a range of countries as to how and when languages are best taught and learned. In the 1990s the European Commission made a recommendation that all school leavers should have some competence in both the mother tongue and two community languages (MT+2). This helped crystallize optimal educational goals but the question of identifying an appropriate 'platform for delivery' has remained largely unsolved. The reason for this has generally not been due to lack of knowledge of what could be done, but rather the inability to visualize how it could be achieved.

In the last twenty years increasing attention has been given to early foreign language learning in some states. When teaching children of 5-10 years, the methods used generally reflect those typical of primary education. Thus they usually combine form with function whereby children learn by doing. The same type of methodology is equally appropriate for older age groups. Some learners clearly respond well to formal language instruction where, often because of time constraints, the focus is generally on form. But there are others in the broader school population who can benefit from the same type of approach as used in primary level, where form and function are integrated and learners use language to learn and learn to use language. The language teaching professions have generally understood this, particularly since the 1960s when foreign language education was extended to include a greater range of young people.

**Providing Solutions**

The question of how to achieve higher levels of language learning has often been answered in terms of improving the quality of language teaching and increasing the time devoted to languages in curricula. In terms of the former, as with any profession, development has to be continuous. As regards the latter, securing extra time within curricula has often been 'non-negotiable' for obvious reasons. Whereas the hallmark of this methodology is an integrated, process-oriented approach to language teaching, the requisites for success require exposure. Improving the quality of language teaching would not, itself, provide opportunities for greater exposure.

Integrating language with non-language content, in a dual-focused environment, has emerged as a solution. Success with this approach in, for example, private education and border schools, alongside implementation in other continents, has been frequently cited in support of its introduction into European mainstream education.

The most obvious reason for this is that exposure to the language can be provided without allocation of extra time within the curriculum. Theoretical justification stems from understanding of which type of exposure yields what results. For instance, low exposure, using appropriate methods, can lead to better outcomes than greater exposure that is methodologically insensitive.

If you exclude primary schools that have introduced early foreign language learning into the curriculum, some 3% of all mainstream schools in Europe are estimated to be using content and language integrated learning methodologies. The proportion of private schools is considered much higher. Although initial implementation has often been in the secondary sectors there are indicators that it is now increasingly entering primary and vocational education.

It is not only the desire of parents, and young people, to have greater competence in languages that appears to be an essential driving force for introduction of this approach. The impact of national and European initiatives, alongside professional developments within language teaching, and, in particular, grassroots demands, have resulted in its emergence as an educational innovation which suits the times, needs and aspirations of learners. In terms of foreign language learning there are signs that older learners are increasingly unwilling to learn now for use later, but prefer to learn as you use and use as you learn, which suits the immediacy of purpose common to the times. Mobility and the imminent broadband roll out are also considered likely to further impact on learner attitudes towards how they learn, particularly with regard to foreign language teaching.

### **Justification**

CLIL is seen as providing a framework for achieving best practice without imposing undue strain on either curricular time or resources. By nurturing self-confidence with both young learners and those who have not responded well to formal language instruction in general education, converting knowledge into skill with more academic learners, and responding to the domain-specific and immediacy needs of older learners, it is seen to support the creative spirit which lies at the heart of all real and genuine individual language use.

The recent experience of CLIL is clearly multi-faceted. This is not viewed as a weakness. On the contrary, it shows the extent to which the approach is used for achieving differing tangible outcomes. These may concern language learning; development of intercultural knowledge, understanding and skills; preparation for internationalisation, and improvement of some aspects of non-language education.

Theoretical justification remains tentative because European pioneering initiatives are relatively recent. However, empirical and anecdotal evidence is favourable, particularly with regard to achieving results with broad school populations. Egalitarianism has been

one success factor because the approach is seen to open doors on languages for a broader range of learners. It has particular significance in terms of early language learning and vocational education. Both of these complement its use with the often more academically-oriented secondary school populations which tend to comprise higher academic ability learners who are likely to enter higher education. It is viewed as inclusive because both below average and above average ability learners have been seen to benefit from exposure.

Research suggests that the intensity and timing of exposure may be more important than high exposure, particularly with certain types of learners. Small-scale long-term exposure is therefore being viewed positively. Early introduction (4-12 years) is now increasingly under discussion as advantageous. There is no available evidence which would support the view that low (5-15% of teaching time) to medium exposure (15-50% of teaching time) would threaten the first language. English language does not have a monopoly position as a target language. In addition, teachers do not need to have native or near-native competence in the target language for all forms of delivery, although naturally they need a high level of fluency.

### **Added Value**

The added value of the approach is viewed according to different sectors and types. First and foremost, this is in terms of providing greater individual economic opportunities and benefits, which, in turn, provides greater overall economic return on investment in language education. In addition, there is potential to enhance:

- ◆ social inclusion and egalitarianism through providing a greater range of young people with alternative platforms for learning languages which suit specific styles, particularly with regard to learning strategies
- ◆ gender mainstreaming in terms of male and female performance in language learning
- ◆ reaping the benefits of naturalistic early language learning

- ◆ the relevance and value of limited and domain-specific competencies in languages
- ◆ opportunities for learners to be linguistically prepared to take up their rights to study in other countries
- ◆ school development which may lead to improvement of educational environments

### **Conclusion**

Language teaching and learning, as delivered through the widely differing educational systems of the European Union member states, clearly needs review and development in one form or another. Some would argue that contemporary languages education has often failed to provide platforms for learning which suit a broad range of people, young and older. CLIL has emerged as a pragmatic European solution to a European need. The MT+2 formula has been recommended alongside claims that ‘foreign languages are not sufficiently taught or learned in schools and that a considerable investment in this field is called for’. A cost-effective, practical and sustainable solution may be found in this approach.

To learn a language and subject simultaneously provides an extra means of educational delivery which offers a range of benefits relating to both learning of the language, and also learning of the non-language subject matter. In addition there are social, psychological and economic benefits that suit political policies and goals. Thus there is a need to consider CLIL in terms of language policy, planning, and politics.

### **Source**

This Reflection Document has been compiled at the University of Jyväskylä, Finland, following submission of Content and Language Integrated Learning - The European Dimension: Actions, Trends and Foresight Potential to the European Commission in September 2002.

## Chapter 2: The Inclusion Dimension

*Special Educational Needs in Europe: The Teaching & Learning of Languages,*  
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## SPECIAL EDUCATIONAL NEEDS IN EUROPE THE TEACHING & LEARNING OF LANGUAGES



TEACHING LANGUAGES TO LEARNERS WITH SPECIAL NEEDS  
EUROPEAN COMMISSION DG EAC 23 03 LOT 3  
DRAFT JULY 2004

## SPECIAL EDUCATIONAL NEEDS IN EUROPE THE TEACHING & LEARNING OF LANGUAGES

**TEACHING LANGUAGES TO LEARNERS WITH SPECIAL NEEDS****EUROPEAN COMMISSION DG EAC 23 03 LOT 3****JULY 2004**

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## SPECIAL EDUCATIONAL NEEDS IN EUROPE

### The Teaching & Learning of Languages

#### Insights & Innovation

DG EAC 23 03 3

## EXECUTIVE SUMMARY

***Equal Rights to Foreign Languages Education***

In the field of foreign languages a major emphasis within the *acquis communautaire* is educational provision for all which leads towards each citizen having some competence in at least two Community languages (MT+2). Access to educational opportunities in foreign languages is part of the social dimension of European integration, and a means for the individual to benefit from occupational and personal opportunities. In addition, access to foreign language learning at school is directly linked to the promotion of lifelong learning and European citizenship. Individuals are protected from any discriminatory practice on grounds including disability and genetic features, which would exclude them from such access (Charter of the Fundamental Rights of the European Union 2001, Article 21).

Thus, we may assume that all young people in the European Union, whatever their disability, whether educated in mainstream or segregated schools/streams, have equal rights to foreign languages education according to provision of opportunity and resources in their respective environments.

Some young people who are disabled may be considered to have special educational needs (SEN). Equally, some young people considered to have special educational needs are not disabled. In addition, whereas some young learners will be identified as having SEN, others are likely to go through schooling, and foreign language learning, without recognition which could trigger forms of adaptive support.

Thus when we consider SEN and foreign language teaching across Europe, particularly in mainstream education, it is essential to recognize that alongside those who are officially recognized as having SEN, there may be cohorts of other 'at risk' young people which are not immediately identifiable. Thus the magnitude of the issue, in purely numerical terms, may be larger than can be seen from available quantitative data.

The term *special educational needs*, is understood in different ways across the Union. Definitions are influenced by legislation, diagnostic procedures, funding arrangements, and educational provision, amongst others. Across Europe the range of defined SEN types ranges from 1 to more than 10 categories.

Correspondingly, the rates for SEN pupils in member states differ widely. The range stretches from 0.9% in Greece through to 17.8% in Finland (2003). Finding explanations for this contrast is complex and multi-faceted. Quantitative indicators used range from precise data through to estimates. Diagnosis, decentralization and inclusion into mainstream education are major factors which account for this.

SEN provision, and consequently school-based foreign language learning, is in a period of considerable change in Europe. This is primarily due to inclusive policies and practices whereby SEN pupils are increasingly educated in mainstream schools and classes. This represents a major cultural and organizational shift of thinking in how to provide for SEN pupils in member states. Across Europe 'inclusion' remains a large-scale ongoing process.

Divergent definitions, diagnostic procedures, educational provision, and the inevitable tensions that emerge during major re-structuring, mean that any European comparative analysis of SEN is problematic. When we consider SEN and the provision of foreign languages education, the picture becomes ever more complex.

It is clear that member states are committed to equal opportunities in education, and thus school-based foreign language learning provision aims to provide SEN pupils with education equivalent to mainstream curricula as far as possible. What is not clear is if SEN pupils genuinely have equal access to foreign language learning.

In approaching this question, it is useful to consider the situation in terms of the 'foreign language learning disabled'. This would include those with cognition & learning difficulties (moderate, severe and specific); emotional, behavioural and social difficulties; communication and interaction difficulties (speech/language and autistic spectrum disorders); sensory and physical difficulties (hearing impairment, visual impairment, physical and medical).

Theoretically, this category of pupils with *foreign language learning disabilities* would also include those who have unrecognized abilities or disabilities which prevent them from reaping the benefits of mainstream foreign language teaching.

Ensuring full access to foreign language learning is fundamentally an issue of responding to diversity. Scientific knowledge on cognition and learning, and insight into individual learning styles, has advanced considerably in recent years. In addition, the teaching profession has focused on designing methodologies so that language learning suits a range of diverse 'language learning styles'.

The foundation of good foreign language teaching practice rests on responding to the diverse language learning styles of the individual. This applies to all learners regardless of age, ability or disability.

Recent good practice in SEN has led to the development of Individual Educational Plans (IEP). The IEP has been given special prominence during the shift towards inclusion of SEN pupils into mainstream education. The IEP is crucially important in SEN because frequently individuals do not have a single

disability. Rather, they may have multiple disabilities, whether temporary or permanent. The same logic applies to their abilities, which will be multifaceted. Thus, SEN pupils do not tend to fit easily into watertight categories. The IEP allows those responsible for the individual, and the individual him/herself, to design an adapted educational plan specific to the person's abilities and disabilities.

Quality foreign language teaching practice for pupils with SEN requires methodologies which are equally good for non-SEN pupils alongside specific interventions according to the profile of attitudes, aptitudes, and needs in the individual's IEP. Across the board, these methods require enhanced multi-sensory input and adaptive support.

Responding to diversity through the IEP helps steer stakeholders away from overtly or inadvertently side-lining the SEN pupil with respect to foreign language learning. The aim of teaching foreign languages to pupils with special needs goes beyond preparing him/her to have a specific level of communicative competence in order to use a target language in professional and personal life. SEN pupils can and do achieve high levels of foreign language competence, but there are those who do not. However, these lower level achievers are able to achieve other benefits, relating to personal and educational development, alongside possible modest linguistic achievements. To encourage a pupil to bypass foreign language learning because of low foreign language communicative performance expectations is to deny him/her access to these benefits which link directly to European citizenship.

In honouring the *acquis communautaire* the foreign language teaching profession across Europe will need to further respond appropriately to ever greater diversity in classrooms. Pupils with special needs are only one part of the diversity jigsaw to which the foreign language learning systems will need to further adapt leading to benefits for all.

### Report contents

*Special Educational Needs in Europe - The Teaching & Learning of Languages: Insights & Innovation* examines policy issues, practical solutions for specific SEN conditions, and examples of good practice.

*Chapter 1* gives an overview of quantitative findings and generic perspectives. *Chapter 2* contains comment and insights from the field on specific SEN types, generic features of good practice, target languages, professional support resources and testing. *Chapter 3* provides case profile examples of good practice and innovation. *Chapter 4* summarizes the added value of further

efforts in this area. *Chapter 5* contains the proposals for further development and recommendations.

### Outline of Main Findings

There is a view that certain SEN pupils should not learn foreign languages because the time and resources should be better spent on first language and/or other subjects. *'Why ask them to learn a second language when they cannot even master the first?'* This view may be held by administrators, teachers or parents. It is reportedly commonly voiced across Europe. It is a view which is not supported by evidence. Pupils who perform lower than peers in the first language, or other subjects, can benefit from foreign language learning.

The reported prevailing view that SEN pupils are 'different to mainstream' and therefore require 'different' educational solutions is linked to diagnosis and labeling. Diagnosis, and periodic re-diagnosis, is essential for triggering support, but labeling can be detrimental in revealing negative assumptions about the potential of the pupil to learn languages. This view may unduly highlight disabilities and disguise abilities. 'Pigeon-holing' through labeling can thus block access to foreign language learning.

Across Europe, the size of the school population 'at risk' of underperforming in foreign language learning, because of inability to respond to mainstream teaching approaches and testing systems, may be higher than that presently categorized as SEN.

There is a lack of evidence to show that any specific SEN category pupil should be denied equal access to foreign language learning. There is evidence of success in foreign language learning with even the reportedly 'most challenging' of SEN categories in terms of inclusion, namely those pupils with behavioural, social and/or emotional difficulties.

On a case-by-case basis there will be individual learners who should be guided away from learning foreign languages. But there appears to be a lack of guidance, in certain sectors, on what factors need to be taken into consideration for this decision to be made in a fully informed manner during development of the IEP.

One of the considerable changes in European SEN educational provision and care over recent years has been the shift from relying on a psycho-medical paradigm towards one which is fundamentally educational. This is a basic force behind the development of the IEP. There is now a need to further educate all stakeholders on the successes that can be achieved in the teaching of foreign languages to SEN pupils within this educational paradigm. This will improve the



quality of decision-making on the IEP which will be further geared towards the individual's potential, and not any specific SEN category diagnosis.

Articulation of the potential and value of foreign language learning is also particularly relevant in terms of SEN financing trends across Europe. One of which is 'pupil-bound budgeting'. This involves each individual SEN pupil being allocated a specific support budget. Lack of guidance on the merits of foreign language learning may make it easier to recommend avoidance in pupil-bound budget cases. This argument is partly based on the reported preference for 'whole school budgets' which involves extra finance being allocated to serve all SEN pupils within a given school. Whole-school budgets might be significant in ensuring that individuals are not marginalized in respect to having opportunities to learn foreign languages.

It is further reported that countries which have decentralized funding support systems for SEN, which, for example, allocate funding as 'through-put' to regions or municipalities, are particularly effective in promoting overall inclusion. It is possible, but not verifiable, that decentralized funding could be linked to greater provision of foreign language learning for SEN pupils.

There is evidence of considerable success in foreign language learning across all SEN categories. This success extends beyond communicative competence and includes other significant educational domains and key competence-building areas involving personal and social development. These 'knock-on' benefits also link to pupil's accessing the European dimension in their lives. Thus describing success is not a question of foreign language learning for the sake of learning a language, but foreign language learning as a platform for enhanced education and personal development.

These achievements do not appear to be sufficiently identifiable and certifiable by national agencies responsible for foreign language performance appraisal. Provision of appropriate assessment is a pre-requisite for encouraging wider provision of foreign language teaching for SEN, and the development of appropriate educational curricula. This would be one factor in reducing the reported 'tension' within those schools which need to demonstrate overall academic performance alongside fully accommodating the needs of SEN pupils.

Major school-based success factors are:

- School leadership and teacher *attitudes* towards the value of foreign language learning and recognition of educational and personal development outcomes beyond communicative competence
- *Methodological adaptation* to meet diverse needs, abilities and disabilities

- *Curricula adaptation* such as ‘lateral progression’ whereby a pupil learns a modest amount of one language and then rather than progressing upwards to a higher level, takes an additional language to a similar performance stage; extended learning time-frames and learning languages across the curriculum.
- Access to *external certifiable performance indicator scales* suitable for lower end, and alternative, forms of achievement.
- *Finance systems* adopted to support the extra costs of SEN; *external support* through, for example SEN Resource Centres, and *multi-disciplinary teamwork*.

There is reportedly a professional tension amongst teachers, both language and special needs, resulting from inclusion of SEN pupils into mainstream foreign language classrooms. Provision of in-service education for foreign language teachers may not have kept pace with the processes of inclusion, and increasing classroom diversity. As a result foreign language teachers may hold the opinion that they are not sufficiently trained to handle language learners with special needs. This tension is also evident in the corresponding cultural shift from the SEN specialist as the teacher, ‘towards that specialist acting partly as a resource person for other teachers who do not view themselves as SEN specialists’.

The position of ICT in SEN foreign language learning appears to be at a watershed. Initial investment in equipment and software needs to be further combined with foreign language teacher training, technical support and access to upgrading. The potential of ICT is considerable, but because of the inability of market forces to cater for marginalized groups, and the ease at which it can be used poorly, funding and expert input needs to be made available in relation to foreign language learning for all SEN categories. This is particularly the case during the early stages of inclusion where foreign language teachers may reach out to ICT as a solution to a problem, rather than as a means to an end.

The major barrier to successful foreign language learning in SEN is in negative assumptions about learner capabilities and limited vision of the pragmatic value of languages for these pupils.

For SEN, as for non-SEN, the value of learning languages goes beyond the learning of linguistic features and rules into accessing the benefits of European integration. In ensuring equal access to foreign language learning for all pupils there is a need to ensure that policy filters through to practice. This could be facilitated through implementation of certain actions at the European, member state, professional organization and school levels.

In respect to the social collective of the European Union and member states, the main recommendations of this report are:

- Further establishing right of entitlement appropriate to needs and abilities
- Satisfying the need for data and further developing means for identifying 'at risk' learners
- Articulating good practice, success and added value
- Enhancing ICT accessibility, interoperability and applicability
- Further developing the Common European Framework of Reference for Languages
- Establishing and extending European professional network platforms
- Including foreign language expertise in SEN resource centres, and SEN expertise in language centres
- Further providing in-service and initial foreign language teacher education focused on diverse learning preferences
- Recognizing 'lower end' foreign language learning achievement

## FOREWORD

Like DNA each individual is unique. Being unique makes that individual special. The word special is used to describe something that relates to one particular individual, group or environment. Special also means different from normal. Normal is used to refer to what is ordinary, as in what people expect. When it comes to foreign teaching languages, these words are loaded because they carry so many implications, resulting in positive or negative outcomes for the individual.

Certain learners have special needs, at certain times, and our educational systems need to respond accordingly. This response has sometimes resulted in exclusion – as in 'learning foreign languages is too difficult thus don't impose even more work on this learner, or this group of learners'. This may have been a valid response in certain cases. Alternatively, we can suggest that it may have been valid if expressed at a time when our understanding of cognition and second language learning was less advanced as now.

The arguments for, or against, provision of foreign language learning needs to be considered in relation to newly emerging understanding and realities. These persuasively show that there are no groups of young people who should be denied access to foreign language learning because it is in their 'better interests'. There will be individuals who on a case-by-case basis may not

benefit, but the arguments for withdrawal should be made in a fully informed manner which takes the following into consideration.

Individuals have differing intellectual profiles, and educational systems strive to accommodate these when teaching subjects across the curriculum. Foreign language learning may be one of those subjects which are particularly significant in terms of diverse individual learning styles. Proponents of multiple intelligence argue that it is fundamentally misleading to think about 'a single mind, a single intelligence, a single problem-solving capacity'.<sup>218</sup> In accepting this view we can assume that there is no single approach to foreign language learning which will suit the needs of any classroom of learners.

Consider, for example, what is termed Language Learning Disability. In the 1960's when Harvard University required undergraduates to learn a foreign language, a clinical psychologist, Kenneth Dinklage, examined why certain otherwise high academic achievers were having considerable difficulty in learning languages. He identified a solution for these very specifically disabled students, which lay in changing the foreign language learning methods used. Robin Schwarz comments 'students not previously diagnosed as learning disabled showed up as learning disabled in the foreign language classroom'.<sup>219</sup>

The theory of multiple intelligences challenged the concept of there being a single intelligence which could be tested by intelligence quota (IQ) tests. Instead it is argued that we have a range of intelligences: linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal, and naturalist.

Work on multiple intelligences is now about 20 years old, and if we examine good foreign language learning practice, we can see how these multiple cognitive resources have been exploited, directly or indirectly, by the teaching profession. Grammar-translation; the cognitive, direct, reading, functional-notional, natural, communicative approaches; the audiolingual method; content and language integrated learning; community language learning; the silent way; total physical response; suggestopedia / suggestology, can all be described in terms of how they attempt to tune into and exploit children's different 'frames of mind' so as to achieve successful foreign language learning.

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When we talk of teaching foreign languages to learners with special needs we face a paradox. The language teaching profession has been adapting to learner's diverse needs for some years, with increasing focus on individual learning preferences. Yet there is a prevailing view that SEN pupils are somehow different, and thus require different educational solutions. It is obviously true that some SEN learners need very specific language learning approaches. But it is also true that the same logic applied to good foreign language learning for non-SEN learners applies to those with SEN.

For example, attention given to language learning styles in effective foreign language teaching from the 1990s onwards is testament to this appreciation that individuals have possibly quite distinct differing needs and preferences when learning additional languages. This has further moved the profession towards focus on the need for individualized learner-based curricula as a result.

This interest has come at the same time as advances in multimedia applications. Given appropriate access to languages in the wider world, children can now build on language learning outside the classroom to a greater extent than earlier unless, for instance, they happened to be brought up in multilingual environments. ICT, mass-media and Internet usage has expanded dramatically in the last ten years, and this is impacting on how the limited hours available for foreign language learning in the curriculum should be used.<sup>220</sup>

When children use ICT applications, they may often be alone, without teachers or parents to assist them, being guided by their own individual 'frame of mind'. For certain SEN pupils ICT is likely to have considerable impact in opening opportunities. In citing Goethe's recognition of our rather recent and possibly transitional written word-bound cultures, Tom West comments 'technology is making it possible for dyslexics to gain access to information and is changing our ideas about what is worth learning and doing. A new class of minds will arise as scientists'.<sup>221</sup> Multimedia presentations could have a considerable impact on a range of SEN foreign language learners, not just dyslexics, because of visual representation and virtual reality in enabling learners to 'see what is unseen'.<sup>222</sup>

There is a wealth of scientific evidence on how diagnosed conditions influence ways of learning. There have also been considerable advances in understanding language acquisition and how the brain works. But, to quote one interviewee, ‘the bridge between research and practice is like a black hole’.<sup>223</sup> In some parts of Europe great strides have been taken in articulating scientific evidence and professional conjecture to practitioners. In others, even if policy is inclusive, there appears to have been less localized consolidation of knowledge and educational practice. However, the issues remain much the same wherever the learner is located in Europe and whatever foreign language s/he is learning.

Advances in knowledge have enabled earlier and one assumes ever more accurate diagnosis. But there appears to be a problem with diagnosis and educational decision-making. An individual with a specific diagnosis, for example ADHD, may have multiple disorders. Indeed some have been said to have ‘multiple disorders of multiple disorders’.<sup>224</sup>

Take for example, the case of dyslexia and the following definition: ‘dyslexia is evident when fluent and accurate word identification (reading) and/or spelling does not develop nor does so very incompletely or with great difficulty’.<sup>225</sup> Even though it is estimated that some 10% of Europe’s population are dyslexic to some extent<sup>226</sup> there will be school-aged young people who have sensory and physical difficulties, or emotional, behavioral and social difficulties, or communication and interaction disorders, who will also show signs of dyslexia according to this definition.

So how does the language or SEN teacher who teaches a foreign language respond to one of these learners? Do they read up on dyslexia and then tailor their teaching? Alternatively do they find out more about Asperger’s syndrome and then select materials and approaches? Which diagnostic label do they choose? Do they follow prevailing recommendations for the diagnosis or do they tailor the approach for the individual according to experience, expertise and insight?

We need to label young people so as to determine diagnosis and trigger support services. But we need to de-label them when it comes to educational provision.<sup>227</sup> 'Labels are for bottles, not people' whereas learning foreign language learning in Europe 25+ is for 'people, not bottles'.<sup>228</sup>

The labeling issue is further complicated across Europe because rates for provision for pupils with special educational needs differ widely across member states from 0.9% (Greece) to 17.8% (Finland).<sup>229</sup> These figures 'do not reflect differences in the incidence of special needs between the countries',<sup>230</sup> but they do reveal marked disparity. Another related issue concerns the proportion of school-age pupils in segregated educational settings. These range from under 0.5% (Greece, Italy, Portugal, Spain) to 6% (Switzerland). This suggests that any attempt to identify and describe good foreign language learning practice for pupils diagnosed with specific conditions across Europe may be hindered by apparently fundamental differences in diagnostic recognition.

The implications for foreign language teaching lead back to the need to focus on developing individualized language learning paths within classroom environments for all children whether classified as learning disabled or gifted/talented, or simply for those who have serious learning problems but are unclassified for whatever reasons.

There are clearly specific requirements for foreign language development according to different diagnoses. These have been reduced to the following in this report: cognition and learning difficulties; emotional, behavioral and social difficulties, communication and interaction disorders; sensory and physical difficulties. Specific solutions for achieving good practice according to these broad categories can be found throughout the report.

Equally, there are generic good language learning practice issues which need to be addressed which reflect broad principles of quality and good practice. Any classroom, and the pupils it serves, is a microcosm of the diversity of the surrounding society. In recent years we have seen the degree of diversity increase to an unprecedented scale in some localities. Diagnosis, or labeling,

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should not be the prerequisite factor for discussing if, and how, we are to teach foreign languages to any specific person or group. Diagnosis, at an early stage as possible is essential, as is access to opportunities for periodic re-diagnosis. Diagnosis needs to be directly linked to educational solutions, as is clearly the case in contemporary SEN. It is an essential tool for looking at opportunities, but not an end in itself. The problems arise if the diagnosis is used to block access to foreign language learning. There are many ways in which this could happen, and it should be stressed that this issue has come through opinions expressed in interviews and e-mail correspondence, not through accumulation of evidence.

Decisions made in segregated SEN schools may be based on views that these specific learners might not benefit from learning foreign languages. In those mainstream schools which are affected by 'market forces' such as competition through examination result profiles, there will be underlying pressures to maximize average performance. This can mean encouraging de-selection of pupils whose grades may be lower than higher from any subjects considered 'difficult' and which are not compulsory. These are but two possibilities, but there are others, as discussed in this report.

Foreign language learning is no longer seen as something which happens exclusively within the school curriculum. It is a lifelong endeavour, and in formal basic education there is an imperative need to lay the foundations – at least a key to the door, if not rooms in the house of language itself.

The prerequisite factor is 'what works for this learner at this given time and place'. This then leads us to address the time and place, and the social and professional variables which are influencing decision-making according to principles of quality foreign language learning such as relevance, transparency and reliability.

The predominant professional issue lies in negotiating and designing individualized language learning paths.

A key social variable concerns the recent trends towards inclusion of special needs learners into mainstream schools. Putting aside the controversies surrounding inclusion which are articulated in some environments, if we ask mainstream teachers to accommodate special needs learners into their



language learning classrooms, then we need to actively consider how to greater prepare them for this task.

Another social factor is countering prejudice, namely in communicating to stakeholders the ethical imperatives of 'languages for all' alongside showing evidence of achievement and success where learners, possibly struggling with considerable handicap, can benefit from the availability of quality foreign language learning. There is evidence of success in schools where pioneering educators have found and implemented solutions for young people with even the most extreme forms of handicap. These successes need to be further put under the spotlight.

The pieces of this socio-professional jigsaw are largely in place. These are advances in:

- adopting an educational paradigm for approaching special needs education rather than one which is principally psycho-medical
- perceiving school-based education as a platform for lifelong learning
- acceptance of the value of inclusion in education
- initial and in-service foreign language teacher education
- understanding of cognitive development and learning with respect to language learning
- diagnosis of special needs and response
- availability of alternative language learning appraisal tools such as the European Language Portfolio which accommodates diverse achievements
- ICT technology which can further support individualize language learning paths
- European networking of learners, stakeholders and professionals

These are complemented by

- European commitment to the imperative of learning languages (MT+2)
- national policies which determine equal access to curricula

Across Europe what appears to be lacking is professional integration. This integration can be achieved through supporting regional and often grassroots (school-based) good practice at a European level so as to facilitate the extension of good practice from one location to another. The single key element appears to rest with professional development of foreign language and SEN teachers, because these people are the main instruments in ensuring that policy is converted into practice. This development is largely dependent on achieving even greater synergy between educationalists, researchers and policy-makers.

During the course of this work it has also become apparent that whereas there is a wealth of information available in two widely used European languages (EN, DE), there appears to be a significant difference with respect to others (in terms of population size). It is not possible to explain why this appears to be the case. Perhaps it reflects a weakness in our approach. Regardless, it does indicate that there is a need for communicating insights and innovation into different languages. This is particularly the case with teacher development and materials.

Quantitatively, SEN pupils are in a minority, although there are indicators that this might be a larger minority than is recognized across Europe as of now. Minorities tend to be marginalized, by, for example, market forces. Thus publishing companies may not be willing to invest in the development of SEN-specific foreign language learning materials. For instance, availability is probably restricted to wider-used target languages, especially English. Multi-media applications may be easier to tailor and render into different languages, but there is a need for non-market driven support if a range of target languages are to be taught to SEN pupils across Europe.

During the six months time-frame leading to this report, we have interviewed and corresponded with a wide range of stakeholders. One outcome is the view that teaching languages can and does work with SEN individuals. Another is the possibly transitional problem that whilst recognizing the need to offer foreign languages to all young people, teachers consider that they lack the knowledge and skills to do it. When asked further about how those practitioners who actively engage in such language teaching measure success, responses range from learners achieving pass rates in tests through to recognizing both linguistic and other achievements resulting from the experience.

One major issue concerns learner self-confidence, which is widely agreed to be one of the pillars of education itself. These practitioners who have, for whatever reason, become actively engaged in foreign language learning provision often cite not just what can be achieved, but also what is denied if it is not done.

Jean-Baptiste Molière is cited as saying 'we are responsible not only for what we do but also what we do not', and in the course of this work the arguments for provision rest not just on having suitable policies, teachers available and so forth. They also focus on ensuring that when the SEN pupil is in a foreign language classroom, whether in a mainstream or segregated school, they are truly included in the language learning process, and not physically present but pedagogically side-lined. There is no available evidence to argue that this is the case, but there are indicators that pro-foreign language learning policies may not yet be fully implemented to the best possible degree in the classrooms.

This report is one step towards pooling experience on good practice in Europe at policy and classroom level. After failing to identify relevant Europe-wide quantitative data, we decided that it was essential to fulfill the initial specifications through a qualitative approach. This was achieved through direct contact with a range of different stakeholders. Interviews in this very complex field with this wide range of people led us to opt for giving space in the report for a number of direct interventions alongside analysis and provision of information.

We are deeply grateful to all these contributors for enabling us to include 'voices from the field' directly into the body of the report. We are aware that there are leading experts that we did not approach, or who were otherwise unable to respond within this task time-frame. The purpose of this report has not been to provide a comprehensive understanding of scientific advances in this field, but to examine the situation 'on the ground' and make recommendations accordingly. The reason why so much 'grassroots' level expertise has been brought into the body of the report is because it reflects the extent to which localized solutions are being explored and implemented.

Sometimes 'necessity is truly the mother of invention' – just take the case of the dyslexic inventor of virtual reality, Daniel Sandean, who initially designed ways to 'walk through data' not just read it as back marks on white paper. In SEN we have found that an extensive number of educational initiatives, including those

focused on foreign language development, have arisen from personal or localized need to identify and handle solutions.

We hope that this report will be one step towards further consolidation of such expertise in the future. We also hope that the recommendations do justice to the complexity of the issue, the solutions within range, and the aspirations of

SEN language learner.

<sup>1</sup> Howard Gardner 2003. *Multiple Intelligences after Twenty Years*, 2003. Gardner, H. American Educational Research Association, Chicago, USA. 21.04.03. See, for example, *Frames of Mind: The Theory of Multiple Intelligences* (1983); *The Unschooled Mind: How Children Think and How Schools Should Teach* (1991); *Multiple Intelligences: The Theory in Practice* (1993); *Intelligence Reframed* (1999); *The Disciplined Mind: Beyond Facts and Standardized tests, The K-12 Education That Every Child Deserves* (2001)

<sup>2</sup>Schwarz, R. *Learning Disabilities and Foreign Language Learning: A Painful Collision*, in Chapter 1.

<sup>3</sup>See, for example, the OECD study *Learning to Change: ICT in Schools* (2001).

<sup>4</sup> Newsletter of the Tobias Association for Healing Education No.7, 1999, Summary of 1st Conference on Dyslexia in Canada. See Thomas G. West, *In the Mind's Eye and Insight- Computer Visualization and the Visual thinkers Who are Reshaping the Future of Technology and Business*.

<sup>5</sup> Tom West contribution as above.

<sup>6</sup>Roswitha Romonath (DE)

<sup>7</sup>Zoltán Poór (HU)

<sup>8</sup>Tony Cline (UK)

<sup>9</sup>European Dyslexia Association 2004

<sup>10</sup> Interview with Antero Perttunen, Tarja Hännikäinen & Marja Lounaskorpi. 2004.

<sup>11</sup> Attributed to Staemmler

<sup>12</sup> *Special Needs Education in Europe: Thematic Publication* (2003) The European Agency for Development in Special Needs Education (in conjunction with Eurydice)

<sup>13</sup> as above

## CHAPTER 1 OVERVIEW

### SUMMARY

Learning disabilities can result from bio-chemical, genetic, development or other causes. Individual learning disability profiles differ within and across those categories which fall under 'special needs'. These categories differ widely across Europe. This results in comparative description across Europe of SEN issues often being problematic.

The rates of diagnosed or otherwise certified SEN pupils in basic education vary widely across Europe. This indicates that foreign language learning classrooms in one country will have identified learners with special needs, and those in other countries may have

learners whose special needs are unrecognized. Across these two polarized groups there will be pupils with clearly defined learning disabilities and special needs.

This situation means that good foreign language learning practice needs to serve the interests of those with differing learning abilities and disabilities, and those with additional disabilities such as hearing or visual impairment. Quality foreign language teaching is the first fundamental step for these pupils, whether special needs or not. The second step concerns appropriate access, adaptability and achievement according to individual requirements.

If these are in order, there are few young people who would not benefit from learning foreign languages. There is tangible evidence of success across all SEN sectors. Likewise, there is anecdotal evidence of the foreign language teaching profession citing lack of resources, training and assessment systems as obstacles in achieving success.

Pupils with special needs, whether diagnosed or not, appear as a marginalized group within the societies of the European Union. Marginal not necessarily in terms of scale, because some projectiles suggest that the percentage of those with learning disabilities could be higher than the commonly quoted estimate of 3-5%, but marginal in terms of access to one of the pillars of European citizenship, namely foreign language learning.

Where successes have been achieved and documented, the linguistic achievements of foreign language learning tend to go alongside other educational and experiential benefits ranging from intercultural development to the building of learner self-esteem. For some of the SEN pupils in those schools which provide a quality foreign language learning experience, the benefits can not easily be understated.

### **PROVISION & PRACTICE IN EUROPE**

In attempting to describe provision and practice of foreign language teaching to learners with special educational needs the following needs to be considered: 'The diversity of education systems in Europe and the lack of homogeneity of certain data give rise to the need for caution when comparing and interpreting indicators'.<sup>231</sup>

There are general issues relating to education which help contextualise the foreign language learning issues examined in this report. These have been summarized and

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adapted according to a recent and authoritative report on special needs education in Europe produced by the Agency for Development in Special Needs Education (2003) and various Eurydice publications such as Key Data on Education in Europe (2002).<sup>232</sup>

The main background issues are:

- A steady decrease in the number of school age young people in Europe (noted since 1975, in 2001 percentage of children under 10 years old is between 9.5 – 14%. A similar decrease reportedly started later in 2004 accession countries but is now considered more rapid.<sup>233</sup>
- The recognized link between level of education and employment prospects.
- The proportion of young people officially recognised as having special educational needs differs widely from country to country (from about 1% in Greece to over 10% in Estonia, Denmark, Finland, Iceland.<sup>234</sup>
- National levels of diagnosis, or other forms of recognition, do not correlate to proportion of young people receiving segregated educational provision. This ranges from under 1% to over 4%.<sup>235</sup>
- ‘Definitions and categories of special needs and handicap vary across countries. Some countries define only one or two types of special needs. Others categorise pupils with special needs in more than ten categories. Most countries distinguish 6 to 10 types of special needs’.<sup>236</sup>
- Parents are involved with educational decision-making to some extent in many countries (particularly Italy, Spain and United Kingdom) but less so in 2004 accession countries, except Romania.<sup>237</sup>
- The tendency in some countries for an early selection of type of specific educational ‘lines’ which may be detrimental for weaker learners.<sup>238</sup>
- Most countries rely on external and transparent educational monitoring systems which enables some form of performance comparison.
- The minimum time for primary education differs considerably across Europe, as does proportion of time spent on compulsory subjects. There is a ‘growing tendency to include one or several foreign languages as compulsory subjects from primary onwards... a trend which is entirely consistent with progress towards European integration...the amount of time allocated to...foreign languages is greater in secondary education’.<sup>239</sup>
- The amount of time given to teaching foreign languages in compulsory education is about 10% in most countries, and the introduction of courses for pupil age-range 6, 7 and 8 years is becoming increasingly common. This results in about 50% of pupils learning at least one foreign language.<sup>240</sup>

- The most common foreign language taught is English (pre-May 2004 figures show primary 42% and secondary about 90%).<sup>241</sup> French is the second most taught language in the former EU 15, and German in the 2004 accession countries.
- Learners recognized as having special educational needs are increasingly being educated in mainstream school environments in Europe 25 according to 3 approaches; one-track, two-track, multi-track.<sup>242</sup>
- National 'inclusion policies' according to one of these track approaches may be difficult to categorize and subject to change because of policy considerations.<sup>243</sup>
- The extent to which special needs learners follow mainstream curricula is influenced, partly, by these track approaches.<sup>244</sup>
- Interest in adopting educational, rather than just psycho-medical approaches to special needs learning has led to widespread interest in the development of Individual Educational Plans for learners.
- There is considered to be tension resulting from the move towards 'inclusive non-segregated education' for special needs learners affecting both schools and teachers. This tension is noted in relation to shifting focus from 'special' to mainstream schools, and moving more educational responsibilities from 'special' to mainstream teachers. The transformation is said to imply 'huge consequences for special needs education'.<sup>245</sup>
- It is difficult to identify quantitative indicators which show how the move towards non-segregated education and, in particular, the development of Individual Educational Plans, impact on the availability and quality of foreign language learning educational provision. Monitoring and evaluation procedures which lead to transparency and accountability differ widely across Europe in this respect.<sup>246</sup>
- Even if trends towards 'inclusive education' reportedly works fairly smoothly at primary level, 'serious problems emerge' at secondary level.<sup>247</sup> The main problems at secondary level are reportedly inadequate teacher development and negative teacher attitudes.
- This indicates a possible problem in availability and provision of quality foreign language teaching because, as above, although there is a trend across Europe 25 for early foreign language learning (e.g. starting at primary level), the bulk of available curricula time is at secondary level overall. Thus, if there are 'serious problems' affecting teachers of all subjects, it can be fairly assumed that these would also be prevalent within the secondary foreign language teaching profession.
- It is not possible to find evidence which shows what happens in a mainstream foreign language learning classroom which includes certain types of special needs learners who may or may not have previously been educated in segregated schools, in relation to that young person being fully included in the

lesson. There is widespread anecdotal opinion that even if such learners are physically present, they may be pedagogically side-lined in various ways.

- However, it is argued that moving special needs learners into mainstream classes has opened up access to the curriculum, including foreign language learning, more than might have been the case when taught in certain segregated school environments.
- There are views reported across Europe that a major problem lies with the lack of opportunities to greater prepare foreign language teachers for increased inclusion of special needs learners into mainstream classes.
- This opinion is also relevant as regards inclusion and learner performance. If schools become 'market-oriented' and are thus under pressure to show 'results' then this could go against the interests of special needs learners particularly in respect to non-obligatory subjects, or those which are often considered 'hard' – such as has traditionally been the case with languages in some countries. Results-oriented 'competitive' educational systems may place pressure on certain pupils to avoid learning or otherwise taking tests in foreign languages. As noted by the European Agency for development in Special Needs Education '...the wish to achieve higher outputs and to include pupils with special needs can become antithetical'.<sup>248</sup>
- Advances with respect to the above have been made in certain countries but reporting on progress, or getting access to reporting, can be problematic when considering all countries.

When we consider provision of foreign language teaching to pupils with special needs across Europe, the primary issues for consideration are official recognition of needs and access. Figure 1 shows the percentage of children 'recognised as having special educational needs and the percentage of these children who are educated within separate structures (special class streams or segregated schools' (2000/2001).<sup>249</sup>



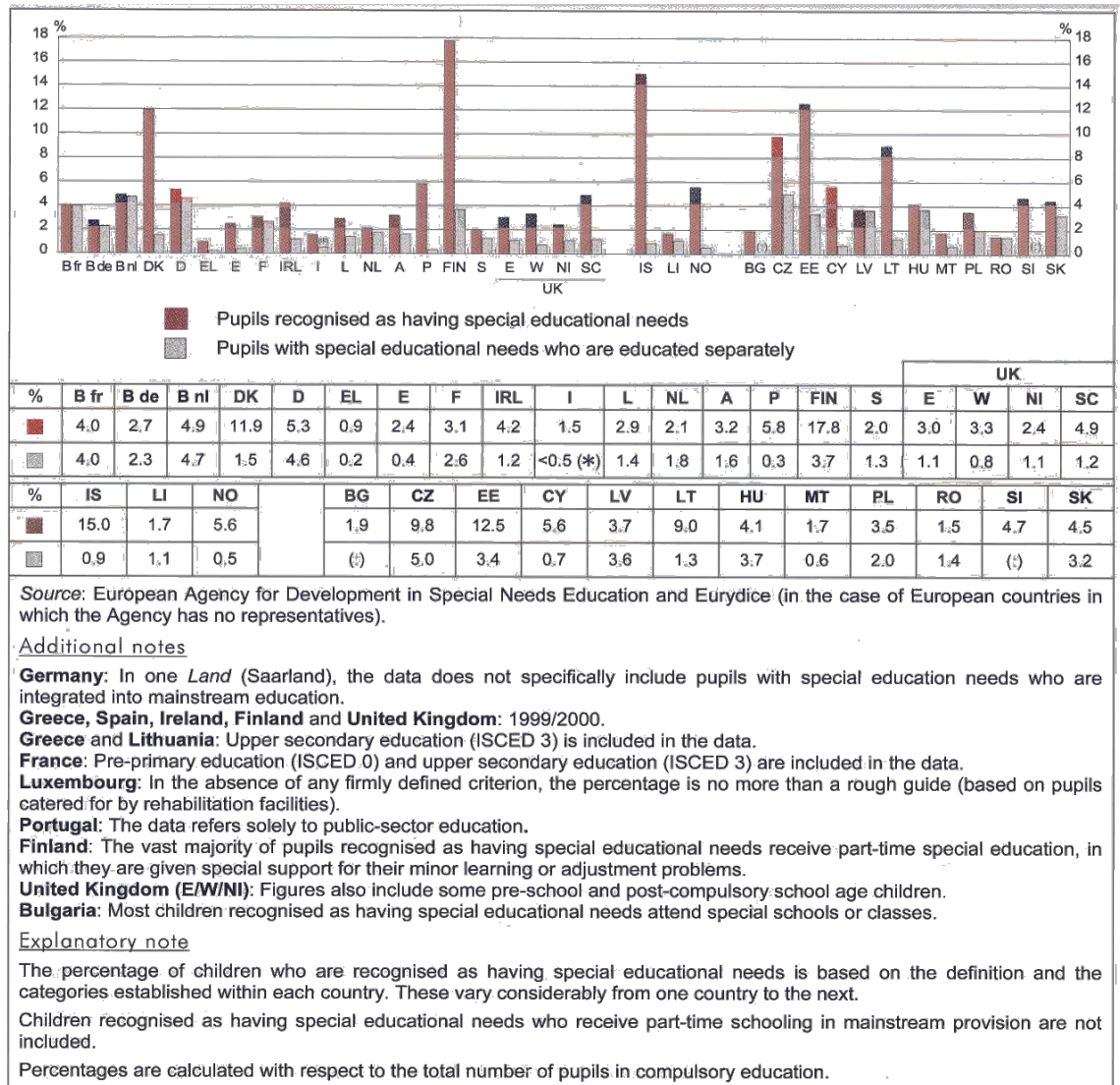


Figure 1. Percentage of pupils recognised as having special educational needs and the percentage of pupils with special needs educated separately (special classes and schools).

Compulsory and primary education 2000/2001. Source: Key Date on Education in Europe 2002. Eurydice/Eurostat.

There is widespread interest reported in defining special needs within an educational paradigm. This is encouraging in terms of foreign language provision.

Considering each learner, case-by-case, in relation to educational needs has led to the development of Individual Educational Plans. Given appropriate policy, resources and motivation, it is possible to have foreign language included in these individual plans. It is likely that in the past, in those cases where diagnosis and appropriate labelling was

used, certain cohorts may not have been given access to foreign language learning on various grounds ranging from aptitude through to justification for the investment considering the overall educational needs of these pupils.

The parallel trend towards providing differing types of educational provision is also on the agenda throughout Europe. This will impact on foreign language education provision.

The following Figure 2 shows the main types of provision.<sup>250</sup>

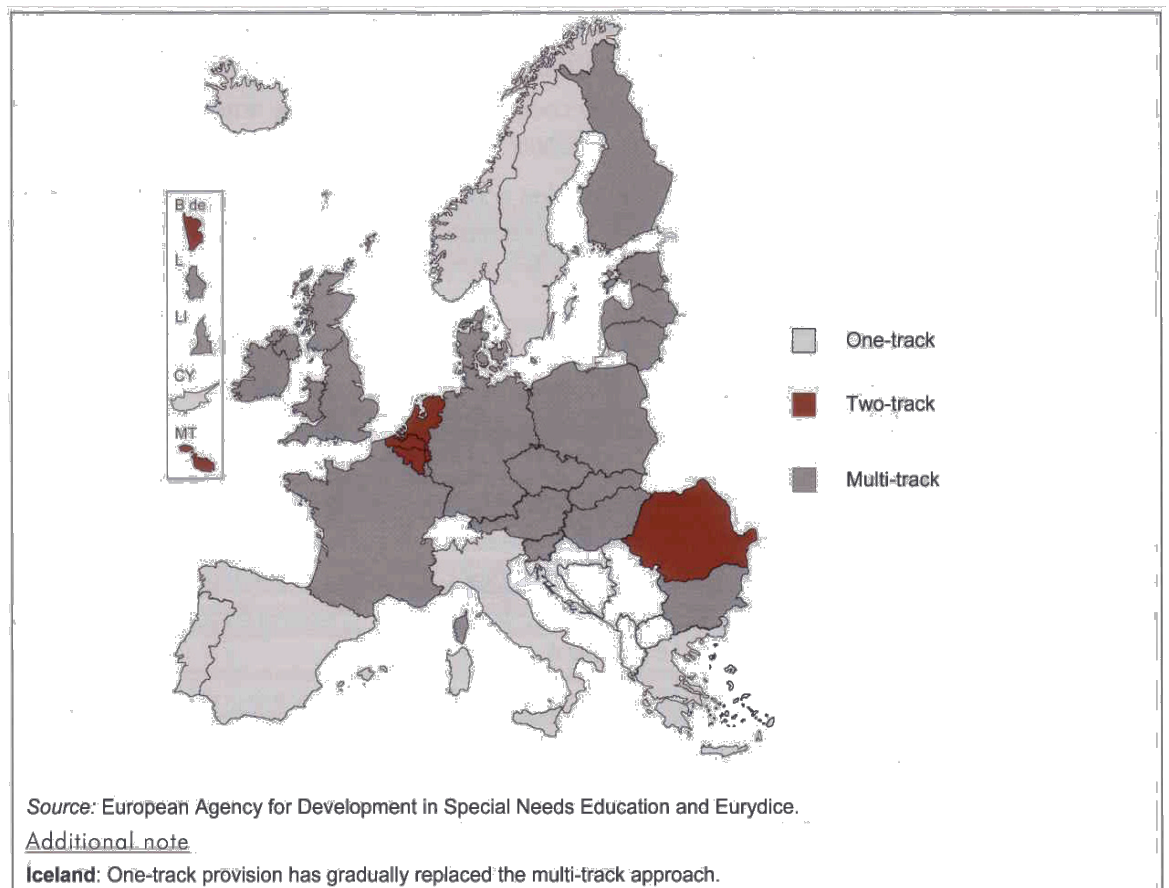


Figure 2 Main patterns of provision for children with special needs 2000/2001. Source: key Date on Education in Europe 2002. Eurydice/Eurostat.

One-track provision, found in Cyprus, Greece, Iceland, Italy, Norway, Portugal, Spain, Sweden, concerns countries that 'develop policy and practices geared towards the inclusion of almost all pupils within mainstream education'.<sup>251</sup>

Multi-track provision, found in Austria, Czech Republic, Denmark, Estonia, Finland, France, Ireland, Latvia, Liechtenstein, Lithuania, Luxembourg, Poland, Slovakia, Slovenia and United Kingdom, concerns countries that 'have a multiplicity of approaches to inclusion (i.e. mainstream and special education systems).'<sup>252</sup>

Two-track provision involves 'two distinct education systems'.<sup>253</sup>

These categories are not distinct because overlap may result from different social frameworks, or in the case reported for Germany and the Netherlands in particular, as a result of policy changes.

More recent data is expected in 2005 (Eurydice) but overall there is a trend towards inclusion of special needs learners into mainstream schools. At the same time there have been moves towards establishing resource centres where existing special schools, or newly created centres of expertise, facilitate the educational processes required for successful inclusion. 'Most countries report that they are planning to develop, are developing or have developed a network of resource centres in their countries. These centres are given different names and have different tasks assigned to them. Some countries call them knowledge centres, others expertise centres or resource centres. In general, the following tasks are distinguished for these centres: provision for training and courses for teachers and other professionals; development and dissemination of materials and methods; support for mainstream schools and parents; short-time or part-time help for individual students; and support in entering the labour market'.<sup>254</sup>

There is no existing single network of these resource centres, thus it is difficult to determine if they commonly include focus on foreign language learning. Those countries which are considered as having experience are Austria, Denmark, Finland, Norway, and Sweden. Those actively implementing these are considered to be Cyprus, Czech Republic, Germany, Greece and the Netherlands.

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However, there are also examples of localized initiatives focussing on competence-building for the learning of foreign languages. A significant example is the study and follow-up of Mainstream Languages in Special Schools and Mainstream Units in Scotland (2002).<sup>255</sup>

This follows an earlier initiative (1994) in which the project 'The European dimension and Teaching Modern European Languages to Pupils with Special Needs' examined how to 'help education authorities and schools to ensure that the curriculum for pupils with special educational needs takes good account of the European Dimension in education and, in particular, of teaching a modern European language'.<sup>256</sup> This exemplary initial report identified the issues and made recommendations for action.

Even though it is over ten years old, according to the anecdotal evidence gathered during the course of preparing this report, this type of work has direct relevance for other European countries/regions.<sup>257</sup>

A summary of the issues found in the 1994 report is as follows:

***clarifying policy***

- Policies promoting foreign language learning are not sufficiently explicit in showing that special schools, and by implication, special streams within mainstream schools, should also offer appropriate access to all special needs learners
- Mainstream schools require assistance in implementing appropriate assessment systems for special needs language learners

***curriculum and professional development***

- Competence-building of special needs teachers to introduce foreign language learning
- Competence-building of mainstream school language teachers to accommodate pupils with special needs
- Developing specific resources for certain types of special needs learners

- Need for better information flow on good language learning practice and access to materials

A summary of the action proposed was as follows:

- Clarification of policy
- Resource-building through networking
- Development of materials bank
- Further development of materials according to need
- Provision of expert consultation services
- Provision of teacher development programmes

The *Mainstream Languages in Special Schools and Mainstream Units in Scotland* (2002) report is also of interest in how it examines 'to what extent modern languages figure in the learning programmes of pupils who attend special schools or units, or who spend a significant amount of their week in a mainstream base, unit or resourced location. Using a questionnaire approach (150 schools in final response rate of 57%) it aimed to discover:

- To what extent the policy of entitlement to foreign language learning is being implemented in the programmes offered in secondary schools to pupils with special educational needs;
- What the nature of such programmes might be;
- Who is teaching the programmes
- Whether any groups of pupils are more likely than others to be excluded from language learning opportunities'<sup>258</sup>

The key findings are summarized as follows:

***pupils***

- About 50% of pupils with special educational needs follow a modern language programme

- Learners of all abilities and disabilities are included in this 50%, but that those with severe, profound and complex learning difficulties and those with social, emotional and behavioural difficulties are less likely to be included. ‘The decision whether or not to offer modern languages appears to relate to adult expectations of pupils’ capabilities and to staffing resources rather than to the ability of pupils to benefit’.<sup>259</sup>
- Non-provision of foreign language teaching was restricted to a small number of schools

#### ***programmes***

- There is a trend towards providing appropriate certification programmes
- ‘Some schools are operating a policy of lateral progression: that is, where pupils are not expected to be able to progress further in their first language, they are offered a course in a different language at the same level’.<sup>260</sup>

#### ***teaching staff***

- The teaching of foreign languages shows a mixed picture. Sometimes it is handled by a foreign language teacher, sometimes by a special needs teacher/specialist
- Team-teaching is commonplace
- A lack of suitably trained staff is cited as a reason for non-provision by some schools.

There are further insights which contribute to our understanding of these issues Europe-wide. These are summarized as follows:

The main reasons for special schools and units not providing foreign language learning were identified as:<sup>261</sup>

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- Inappropriateness of modern language learning for some pupils
- The need to prioritize basic skills
- The lack of modern languages staff

In this study those schools most likely not to provide foreign language learning were those providing for profound, severe & complex learning needs, and also social, emotional & behavioural difficulties.

In terms of mainstream schools, the findings are summarized as follows:<sup>262</sup>

- Schools were actively searching for ways of making provision for foreign language learning
- About 70% of special needs pupils found to be offered foreign language learning programmes
- Various forms of support for teachers being introduced
- Lack of competence in the first language 'no longer seen as a barrier to progress' when appropriate foreign language programmes available

The final conclusions of the work leading to production of the 2002 report have special relevance in relation to other European contexts.

Prior to this work being carried out, 'the proportion of pupils with special educational needs whose curriculum includes a modern language was previously unknown. The conclusion further notes that: 'It is therefore of considerable interest to discover that, at least in the schools represented in this survey, around half are currently following ML (modern language) programmes, and that the number is increasing. Pupils attending mainstream SEN bases are rather more likely to be included in ML programmes than their counterparts in special schools (70% of mainstream schools make ML provision for some of their pupils with special educational needs, as opposed to 49% of special schools). This may be related, at least in part, to the availability or to lack of information to special schools about the availability of suitable programmes.'<sup>263</sup>

What is not known from the survey is the percentage of learners not officially certified as having special educational needs, but who have been deselected from foreign language classes.

In addition, the survey did not find that any specific special needs category should be denied an opportunity to learn a foreign language. The main factors leading to provision or non-provision went beyond the abilities and disabilities of the learner, or category of learners, towards attitudes of stakeholders and staffing resources.

The differing levels of diagnosis across Europe have direct and indirect bearing on provision of foreign language learning (see Figure 3). These are reproduced here<sup>264</sup> for easier overview:

Austria	3.2%	Italy	1.5%
Belgium (DE)	2.7%	Latvia	3.7%
Belgium (F)	4.0%	Liechtenstein	2.3%
Belgium NL	5.0%	Lithuania	9.4%
Cyprus	5.6%	Luxembourg	2.6%
Czech Republic	9.8%	Netherlands	2.1%
Denmark	11.9%	Norway	5.6%
Estonia	12.5%	Poland	3.5%
Finland	17.8%	Portugal	5.8%
France	3.1%	Slovakia	4.0%
Germany	5.3%	Slovenia	4.7%
Greece	0.9%	Spain	3.7%
Hungary	4.1%	Sweden	2.0%



Iceland	15.0%	Switzerland	6.0%
Ireland	4.2%	United Kingdom	3.2%

Even within a single country (Belgium) the differences range from 2.7% to 5.0%. In the Nordic zone the differences are equally large, ranging from 2.0% (Sweden) through 5.6% (Norway) to 17.8% (Finland). It is not within the remit of this report to explain such disparities, but it is important to note that diagnosis and labeling may be working to the advantage, or disadvantage, of the learner when it comes to foreign language learning provision.

For example, if 17.8% of Finnish school pupils have been officially recognized as having special needs, how do these pupils compare to the 0.9% in Greece, in terms of having opportunities to learn foreign languages? Is it a case of over-zealous diagnosis in one country, and lack of diagnostic facilities, in another? Does the diagnosis lead towards even better and more appropriate individual learning plans which accommodate suitable foreign language learning provision in one country and a high level of non-individualized attention in the other? What then of the pupils who have not been diagnosed as having special needs but who do have language learning disabilities?<sup>265</sup> There are many such questions which can be raised, but finding answers is highly speculative at this given time. What we may assume is that the movement of pupils from segregated into non-segregated mainstream schools may increase rather than decrease access to foreign language learning, as indicated in *Mainstream Languages in Special Schools and Mainstream Units in Scotland (2002)*, and other sources consulted.

Both the diverse approaches to diagnosis, and shifts towards inclusion, are a substantial transformation process across Europe. This has consequences in terms of foreign language learning because it suggests that if foreign language provision is to be assured for the widest possible range of pupils then it is probably necessary for stakeholders to act accordingly.

Decentralization, the influence of parents/carers, and financing are also important issues during this period of change. A 'clear and widespread trend towards decentralization is reported<sup>266</sup>, particularly in countries such as the Czech Republic,

Netherlands and United Kingdom. In both the Netherlands and the United Kingdom there is also a shift of resources and decision-making to those with closest access to the learner. This means that, overall, local forces can 'more easily influence the organization of special needs education'. It is not possible to know how this would impact on the number of special needs learners studying foreign languages because even greater localized choice may result in the wider, European dimension being diminished. This is speculative but the anecdotal evidence of negative attitudes towards teaching foreign languages to learners with special needs, and certain other forces, might place undue pressure on such learners, and/or their parents/carers to opt out of foreign language learning.

The influence of parents is significant in relation to formation of Individual Educational Programmes (IEP) and any role for foreign language learning. '...the elaboration of an Individual educational Programme plays a major role in special needs education within the mainstream setting. It serves both as an expression and specification of the degree and type of adaptations to the mainstream curriculum and as a tool for evaluating the progress of pupils with special needs. It may also serve as a 'contract' between the different 'actors': parents, teachers and other professionals'.<sup>267</sup>

Funding mechanisms differ across Europe. The interest in pupil-bound budgets, as seen recently in the Netherlands, 'empowers the parents, stimulates accountability and promotes equal access to appropriate education'.<sup>268</sup> If the motivation is there to include foreign language provision, then more individualized funding approaches may cast influence. The funding approaches differ widely and these are considered 'one of the most important factors that may contribute to the further development of inclusive practices'.<sup>269</sup>

It is reported that 'class teachers' receive some 'form of compulsory training on pupils with special needs during initial training'.<sup>270</sup> There is also supplementary training available but 'in the majority of countries this is offered as an option'.<sup>271</sup> The depth

and duration of both initial and supplementary training for non-specialized teachers clearly varies considerably across Europe.

What is not known is the extent to which focus on special needs education is an integral part of initial foreign language teacher education, both primary and secondary levels. We have anecdotal reporting that there is a need for more supplementary (in-service) teaching for mainstream foreign language teachers, resulting from the inclusion of special needs language learners non-SEN schools, but little available data upon which to draw conclusions. Considering the scale of special needs being reported in certain countries, there is a case for taking this issue further in relation to across-the-board quality foreign language learning solutions.

The potential of information and communication technology (ICT) to enhance general educational provision has been clearly given considerable attention across Europe. The European Agency for Development in Special needs Education has reported on this potential noting that ‘access to appropriate ICT solutions for some pupils with special needs, their families and teachers, is often problematic’. It also states that ‘most countries agree that access to appropriate ICT can reduce inequalities in education and (that) ICT can be a powerful tool in supporting educational inclusion. However, inappropriate or limited access to ICT can be seen to reinforce inequalities in education faced by some pupils including those with special educational needs. Finally, it argues that ‘there is a need for a shift in focus of ICT in special needs education policies and programmes.’<sup>272</sup>

It is possible to argue that there is evidence that significant moves have been made to introduce ICT hard and software into education in general, and in some countries specifically for special needs learners<sup>273</sup>, there may have been less success in training teachers to use this resource for teaching and learning. It appears that in respect to using the new technologies with special needs learners we are at a ‘watershed’ where initial investment in hard and software needs to be followed by further investment in ICT language learning methodologies.

Even if differences exist according to country, level and subjects, it may be the case that not enough has yet been achieved in equipping foreign language teachers with the

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pre-requisite skills to use ICT effectively. If this is the case with mainstream language learning classes, then it is correspondingly likely to be the case when teaching languages to learners with special needs.

Although ICT learning programmes are available, there is often a problem with incompatibility and the fact that they may rely on standard pedagogical approaches and methods. 'These packages are potentially suitable for people excluded as a result of physical disabilities, however, they may be made inaccessible through incompatibility with assistive technologies such as screen readers etc. e-Learning materials should always seek to comply with W3C WAI guidelines'.<sup>274</sup>

Web Access Initiative (WAI) is directed by Tim Berners-Lee (MIT/USA), inventor of the World Wide Web: 'the power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect'.<sup>275</sup> WAI coordinates efforts at enhancing accessibility to the web through five areas including education.<sup>276</sup>

In reporting on factors which hinder a teacher's use of ICT in special needs education, the four most common reasons cited<sup>277</sup>, according to number of countries identifying the problem are:

- Lack of teacher confidence
- Lack of information and expertise-sharing
- Limited availability of hardware and software (including upgrades)
- Lack of expert support/information

Three of these relate directly to teacher education in applying ICT into special educational needs curricula or otherwise adapted curricula. Even if these findings are about teachers in general, there is no reason to assume that they don't equally apply to foreign language teachers as well.

When reporting on those factors which support or otherwise encourage teachers to use ICT in special needs education, the four most common factors<sup>278</sup> (as above according to number of countries identifying the issue) are:

- Positive outcomes in pupils' learning/motivation resulting from use
- Teacher's competence (and motivation) in using ICT flexibly
- Access to specialist information and other teacher's practice
- Availability of hard and software, and technical support

There is a need to determine the extent to which knowledge in using ICT for language learning, in particular for individualized learning paths, is integrated into initial foreign language teacher education. Austria, Belgium, Cyprus, Czech republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Lithuania, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden and the UK are all reported as having 'ICT as a general part of initial teacher training'.<sup>279</sup> However, only two countries, Austria and the Czech Republic are reported to have training in the use of ICT specifically for special educational needs in initial teacher education.<sup>280</sup> Although there are specialist ICT for special needs education supplementary / in-service teacher education programmes provided in a range of countries (Austria, Denmark, Cyprus, France, Germany, Greece, Ireland, Lithuania, Spain, Sweden and the UK – there are some regional differences reported in some of these countries)<sup>281</sup>, there is no indication of the extent to specialist courses are available for foreign language teachers.

ICT and special educational needs was examined in a 1999-2001 project conducted by the European Agency for Development in Special Needs Education which is reported in Information and Communication Technology in Special Needs Education – recent developments in 17 countries (2001). One of the concluding comments is particularly relevant in relation to teaching and learning foreign languages. 'Information on the

needs of all potential ICT users should inform the debates on the relationship between technological innovation and development and educational theory.

The findings of this project support this viewpoint: that understanding of ICT in SNE users' educational and technological needs should be the basis for the policies and infrastructure of ICT provision which underpin the practice of teachers and the professionals who support them<sup>282</sup>

The European Agency for Development in Special Needs Education has worked on definitions and the different categories of people who belong to the special needs target group. 'The different categories of people who belong to the SEN target group should be clarified and detailed, even if terminology differs within the different countries. The following terminology could be used in the official documents: people with special educational needs that arise from a difficulty or disability (visual disability, hearing disability, physical disability, intellectual disability, multiple disabilities, emotional and behavioural difficulty, learning difficulty, language impairment).<sup>283</sup>

The Bibliography of Modern Foreign Languages and Special Educational Needs produced and managed by David Wilson<sup>284</sup>, which contains over 1 100 references Europe-wide, groups these categories according to the following:

- Cognitive and Learning Difficulties
- Emotional, Behavioural and Social Difficulties
- Communication and Interaction Difficulties
- Sensory and Physical Difficulties

It needs to be stressed that, in some cases, with any given pupil, there is the possibility of overlap across and within these broad categories. In addition, the individuals that are affected, to a greater or lesser extent, by any combination of these difficulties, can all be considered in relation to three primary individual learning styles. These are:

- visual (seeing)
- auditory (hearing)
- kinesthetic (physical)

These are further complemented by others which are relevant to certain pupils, especially:

- tactile (learning by doing)
- field-independent (analytic – focusing on details and not the ‘broader picture’)
- field-dependent (the converse of field independent – focussing on the whole with little concern for details)
- reflective (requiring time for planning and valuing accuracy)
- impulsive (converse of reflective).

These represent the basic framework for approaching how to teach a foreign language to a learner with special educational needs. The language teacher who teaches in mixed ability classes needs, by definition, to adopt an ‘eclectic’ approach. ‘Potential classroom problems include disruptions by the special needs student, other students, or both; teacher frustration; and the inability of the learning disabled student to cope with the material and keep pace in class, often eventually lead to failure’.<sup>285</sup> This eclectic approach is founded on an active response to diverse foreign language learning styles.

For example, it has been argued that some special needs learners do not adapt well to mainstream foreign language learning classrooms.<sup>286</sup> If you take a child with an autistic spectrum disorder, that child may be overly social in one-to-one situations, and overly anti-social in group situations, such as in classroom contexts. S/he may respond very well to one approach, and very poorly to another. In such a context the language teacher can consider which of the foreign language learning style approaches might best fit this learner or group of learners be it, for example, largely ‘field-independent’ and ‘reflective’ or ‘field-dependent’ and ‘impulsive’.

The same applies to the use of an alternative learning medium such as ICT. The application needs to complement the pupil’s preferred learning styles. For instance with ASD, ICT can be highly complementary if the pupil is able to ‘repeat learning sequences’ and provide sensory stimulation such as colour, light, sound, music and so

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forth. But if the software is inappropriate, or the conditions for use not suitable for reaching into preferred basic learning styles, then successful outcomes will be hard to achieve.<sup>287</sup>

The core parameters involved are:

- Scale & Time-Frame – the number (learning volume) of the items to be learnt in a given period
- Complexity – of items to be learnt in a given period
- Relevance – in supporting learner motivation
- Appropriateness – in achieving learner-centeredness
- Input – of teacher delivery and methods
- Output – suitable channels for the pupil to respond & participate
- Participation – extent to which the pupil is involved with task and processes
- Performance Indicators – setting appropriate benchmarks reflecting achievable, transparent and recognized goals
- Transferability – so the curriculum and learning goals link to the cognitive and learning characteristics of the pupil
- User Friendliness – Learner-sensitive use of materials and classroom aids

Clearly these parameters are relevant to any foreign language learning classroom. In that classroom there may be pupils who have obvious signs of disability, alongside those that show no outward signs of having special learning needs. It has been noted that it is this latter group which may influence negative peer pressure from other pupils.<sup>288</sup> For all learners with special needs, the parameters need to be carefully considered from the use of handwriting such as on a whiteboard,<sup>289</sup> through to sentence and word difficulty,<sup>290</sup> and even the colour of paper used for pupil's



materials.<sup>291</sup> The list of recommendations and guidelines in available literature is considerable.<sup>292</sup>

### **COGNITION & LEARNING DIFFICULTIES**

Cognition & Learning Difficulties covering moderate, severe and specific learning difficulties, including dyslexia - auditory (dysphonetic dyslexia), visual (dyseidectic dyslexia), mixed or classic (dysphonetic and dyseidectic dyslexia),

dyscalculia, dyspraxia, and dysgraphia.

Pupils in this category have a particular difficulty in learning to read, write, spell or use numbers, in addition to short-term memory, organisational skills and coordination.

'Pupils with specific learning difficulties cover the whole ability range and the severity of the impairment varies widely.<sup>293</sup> Pupils with Moderate Learning Difficulty (MLD), Severe Learning Difficulty (SLD), or Profound and Multiple Learning Difficulty (PMLD) also vary considerably in relation to severity of difficulties and needs.

For example, the features of MLD are described as: 'having much greater difficulty than their peers in acquitting basic literacy and in understanding concepts. They may also have associated speech and language delay, low self-esteem, low levels of concentration and under-developed social skills.'

Features of SLD are described as: 'having significant intellectual or cognitive impairments. This has a major effect on their ability to participate in the school curriculum without support. They may also have difficulties in mobility and coordination, communication and perception and the acquisition of self-help skills'

Features of PMLD are described as: 'having complex learning needs. In addition to very severe learning difficulties, pupils have other significant difficulties, such as physical disabilities, sensory impairment or a severe medical condition. Pupils require a high level of adult support, both for their learning needs and also for their personal care. They are likely to need sensory stimulation and a curriculum broken down into very

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small steps. Some pupils communicate by gesture, eye pointing or symbols, others by very simple language.<sup>294</sup>

In reference to language learning and MLD, 'the only 'disabling' conditions that our pupils have are low expectations and assumptions made by adults', comments Keith Bovair, 'I am proud of the educators in my setting who took a belief and turned it into a reality. They were from the 'mainstream' adapting to 'special' and creative in their delivery. Bovair is describing what happened in a school catering for pupils with moderate learning difficulties which successfully introduced foreign language teaching.<sup>295</sup> There are many examples from across

Europe which offer examples of successful teaching of language to pupils with moderate learning difficulties.

In terms of SLD 'until recent years, pupils with SLD would rarely have been given the opportunity to experience foreign language teaching, yet such pupils can both enjoy learning a language and progress linguistically, socially and culturally... At the Shepherd School, UK, a specialist teacher of French was appointed and through application of suitable teamwork and attainable goals, foreign language learning became not only enjoyable but achievable.<sup>296</sup> 'With a multi-model, multi-sensory approach to communication activities, the benefits to pupils' self-esteem were quite considerable. Songs, rhymes, games, food and drink samples, authentic smells and items pleasant to feel and hold are as essential ingredients to any lesson as meaningful exchanges in (the target language). For students with very little or no vocalisation, the use of signing and symbols to support their language learning is essential. The Makaton system used in school lends itself perfectly to this.'<sup>297</sup>

Pupils with specific learning difficulties, and the educators who teach them foreign languages, have more specific solutions at hand, than is the case with some other SEN categories. For example, certain types of dyslexic pupils can benefit from what is termed the Orton-Gillingham Method which is a 'language-based, multi-sensory, structured, sequential, cumulative, cognitive and flexible educational approach which

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can be applicable to first and second language learning.<sup>298</sup> For example, the use of phonics and phonemic awareness exercises could widely apply to SLD pupils.<sup>299</sup> The same applies to the types of multi-sensory techniques which can be used and supplemented with other interventionist strategies such as kinetic and mnemonic techniques. Referring to dyslexia ‘we can learn to read, write and study efficiently when we use methods geared to our unique learning style’.<sup>300</sup> These methods are widely reported and can be applicable across the SEN category range. Some are as applicable to helping with visual and auditory functioning when learning a first and second language. For example, Schneider and Crombie (2003) list key principles for teaching a foreign language to pupils with dyslexia. These are summarized as follows: use of multi-sensory techniques, making language patterns explicit, over-learning, stimulating metacognition, slowing the pace of presentation and ‘engag(ing) students by activating their personal strengths and interests and by giving them individual space.’<sup>301</sup>

### **EMOTIONAL & BEHAVIOURAL & SOCIAL DIFFICULTIES**

There is a very wide variety of special educational needs reflected in this category of Behavioural, Emotional and Social Difficulties (BESD). In the mildest cases, ‘pupils may have difficulties with social interaction and find it difficult to work in a group or cope in unstructured time. They may have poor concentration, temper outbursts and be verbally aggressive to peers and adults’.

Moving along the continuum of severity, ‘other pupils may provoke peers and be confrontational or openly defiant and sometimes physically aggressive towards peers and adults. They are often off task and have a short concentration span. Their self-esteem is low and they find it hard to accept praise or take responsibility for their behaviour.’

In the most severe cases, 'some pupils may not be able to function at all in group situations and exhibit persistent and frequent violent behaviour which requires physical intervention. Other pupils may display similar signs of low self-esteem, under-achievement and inappropriate social interaction, but without outwardly challenging behavioural outbursts'.

In some serious cases of Emotional and Behavioural Difficulty (EBD) a pupil 'may be withdrawn, depressive aggressive, or self-injurious'. Those pupils with Attention Deficit Disorder (ADD) show short concentration span and higher levels of impulsivity. Those with Attention Deficit Hyperactivity Disorder (ADHD) are similar to ADD but also with a marked level of hyperactivity.

There are some examples of foreign language learning initiatives reported, and possibly many others not in the public eye, whereby languages are successfully taught to BESD pupils. Portal House (UK) caters for boys (5-11 years) with emotional, social and behavioural educational needs. All pupils have been excluded from at least one mainstream school, and some have fallen out of education for one to two years. It is argued that there is a strong link between learning foreign languages and 'the positive impact this has on the pupils social skills and sensitivity towards others' The focus is on acquiring 'listening and speaking skills – skills which have a positive impact on other areas of the curriculum.'<sup>302</sup>

There is much evidence available that foreign language learning can be successful for pupils with emotional, behavioural and social difficulties, but there is no set of methodologies which are exclusively applicable across the range.<sup>303</sup>

### **COMMUNICATION & INTERACTION DIFFICULTIES**

This covers speech/language difficulties and autistic spectrum disorders (ASD). ASD includes Autism, Asperger's Syndrome, Semantic-Pragmatic Disorders, and Speech and Language Difficulties.

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Pupils with speech, language and communication needs (SLCN) cover the whole ability range and 'have difficulty in understanding and/or making others understand information conveyed through spoken language. Their acquisition of speech and their oral language skills may be significantly behind their peers. Their speech may be poor or unintelligible. Pupils with speech difficulties may experience problems in articulation and the production of speech sounds. They may also have a severe stammer. Pupils with language impairments find it hard to understand and/or use words in context. They may use incorrectly with inappropriate grammatical patterns, have a reduced vocabulary or find it hard to recall words and express ideas. They may also hear or see a word but not be able to understand its meaning or have trouble getting others to understand what they are trying to say'.<sup>304</sup>

'Pupils with autistic spectrum disorders (ASD) may have a difficulty in understanding the communication of others and in developing effective communication themselves. Many are delayed in learning to speak and some never develop meaningful speech. Pupils find it difficult to understand the social behaviour of others. They are literal thinkers and fail to understand the social context. They can experience high levels of stress and anxiety in settings that don't meet their needs or when routines are changed. This can lead to inappropriate behaviour. Some pupils with autistic spectrum disorders have a different perception of sounds, sights, smell, touch and taste and this affects their response to these sensations.'<sup>305</sup> Asperger's syndrome, a form of ASD, which is also known as Pervasive Developmental Disorder (PDD), differs in that 'there are no clinically significant delays in language or cognition or self-help skills or in adaptive behaviour, other than social interaction'.<sup>306</sup>

Speech & language disorders (SLD) may or may not be regarded under special educational needs. These often relate to oral motor function, and range from 'simple sound substitution through to the inability to understand or use language or use the oral-motor mechanism for functional speech and feeding'.<sup>307</sup> Pupils with Semantic-pragmatic Disorders (SPD) have been described as those with 'mild autistic features

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and specific semantic pragmatic language problems'.<sup>308</sup> SPD, which was originally defined as late as 1983, covers many complex features. In the past some of these were considered 'behavioural' but in more recent years more attention has been given to specific learning features such as processing information and extracting meaning and difficulties in focusing on listening. Some pupils display both semantic and pragmatic features (as in understand meaning and having difficulties in using a language socially), others one of these more than the other.

In an article on Hillpark School in Scotland, where pupils with Asperger's syndrome learn a foreign language, the following is observed: 'Originally a mainstream teacher, (Vivienne) Wire sees autism as a different way of thinking and learning, not as a deficit. Teaching (a foreign language) to a youngster with Asperger's syndrome, she says, directly addresses the social and communication problems and gives them a chance to overcome these....also, the pupils have many strengths in favour of language learning, she says. Good rote memory, for example, is ideal for vocabulary learning. Youngsters are keen on routine and this, coupled with a lower level of self-consciousness about speaking out, works well with greetings and instructions in (the foreign language) classes. This lack of self-consciousness brings an added ability to repeat accurately and mimic speech, so a good (target language) accent can develop naturally'.<sup>309</sup> She also notes that '...young people with Asperger's syndrome (who) generally have a high level of language skills. In languages a teacher can really relate to the mood of an individual, using versatility and spontaneity'.

Wire's research work examined autistic spectrum pupils 'in order to explore their experience of learning a foreign language and to see if there were any autism-specific barriers to this subject or any strengths which could be capitalized on'.<sup>310</sup>

In *Research into Autism and Language Learning*<sup>311</sup>, Wire is reported to have found that 'teachers working with such pupils felt that learning a foreign language helped introduce quite 'sheltered' youngsters not only to another language but also to different culture'. Learning a foreign language was also seen to 'increase opportunities to improve their impaired social interaction and

communication skills', and that 'the pupils themselves felt it was no harder to learn a foreign language than to study other non-practical subjects'.<sup>312</sup>

### **SENSORY & PHYSICAL DIFFICULTIES**

Sensory and physical difficulties (hearing impairment, visual impairment, physical and medical difficulties), physical and medical difficulties (including Cerebral palsy and traumatic brain injury)

There is a wide range of difficulties which may be sensory and physical. 'The sensory range extends from profound and permanent deafness (HI) or visual impairment (VI) through to lesser levels of loss, which may only be temporary. A few children will have multi-sensory difficulties (including deaf/blind) some with associated physical difficulties. For some children the inability to take part fully in school life causes significant emotional stress or physical fatigue'.<sup>313</sup>

Multi-Sensory Impairment (MSI) is used when a pupil has a combination of VI and HI difficulties. Physical Difficulties (PD) covers a wide spectrum from those who have one of a number of conditions which result in reduced mobility. Examples of these are cerebral palsy, spina bifida and hydrocephalus and muscular dystrophy. Some PD pupils can learn effectively without additional educational provision'.<sup>314</sup> Some may also have 'sensory impairments, neurological problems or learning difficulties'. Some pupils are mobile but have significant fine motor difficulties which require support. Others may need augmentative or alternative communication aids.<sup>315</sup>

Foreign language learning solutions for the visually and hearing impaired and those with physical and medical difficulties are characterized by a range of additional tailored support features and aids. These specifically gear the pupil towards encouraging the pupil to learn with all available senses.<sup>316</sup>

### ***Concluding Comment***

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The European Agency for Development in Special Needs Education summarizes the following as effective within inclusive education.<sup>317</sup> These apply to SEN and foreign language learning:

- Cooperative teaching – teachers working together with other teachers (a specialist or colleague), the head teacher and other professionals;
- Co-operative learning – learners that help each other, especially when they have unequal levels of ability, benefit from learning together;
- Collaborative problem solving – for all teachers, clear class rules and a set of borders – agreed with all the learners – alongside appropriate (dis)incentives have proved particularly effective in decreasing the amount and intensity of disturbances during lessons;
- Heterogeneous grouping – mixed ability level groups and a more differentiated approach to teaching are necessary when dealing with a diversity of learners in the classroom;
- Effective teaching and individual planning – all learners, including those with SEN, achieve more when systematic monitoring, assessment, planning and evaluation is applied to their work. The curriculum can be geared to their needs and additional support can be introduced effectively through an Individual Educational Programme (IEP) that fits with the normal curriculum.

## **CHAPTER 4 ADDED VALUE**

In *Responding to Pupil's Needs when Teaching MFL* (modern foreign languages)<sup>1</sup>, the Qualifications and Curriculum Authority (UK) provides the following: 'Learning a modern foreign language helps all pupils develop their interest and curiosity in the similarities and differences between themselves and others. This includes learning about countries, cultures, people and communities. Meeting people from other countries and cultures helps to broaden pupils' horizons by experiencing new and different languages and cultures. Learning the basics of a foreign language helps pupils to extend and develop their language and communication skills and can enhance self-esteem. In particular MFL (modern foreign languages) offers pupils with learning difficulties opportunities to:



- Become aware of themselves as citizens of the world, as well as in their own immediate environment and society
- Become more aware of language, sounds, smells, tastes, images and artifacts from other countries and cultures by working with materials from these countries
- Become more familiar with the sounds of an MFL (modern foreign language) and use a range of methods which develop speaking and listening skills rather than relying on the written word
- Meet people from other countries and communicate with them in their own language
- Develop imitation skills and the motivation to produce sounds and an expressive language
- Use ICT for direct electronic contact, e-mail or the internet so they can use a new language to communicate with schools and people in other countries
- Support their learning in other subjects
- Develop listening, concentration and social skills through partnership and group work
- Work in a range of contexts and topics adapted to suit individual interests and motivations

In response to these opportunities, pupils can make progress in MFL (a modern foreign language) by:

- Expanding their breadth and depth of experience, knowledge and understanding
- Developing and extending new language and communication skills
- Moving from the familiar to the less familiar
- Developing understanding, for example, from the concrete to the abstract'

Hilary McColl (2000) observes 'The desire and need to communicate with the people around us is a powerful motivator and enabler. If that need is not there, then some other motivation has to be found. There has to be a reason to learn another language, and the benefits must be palpable. It is this requirement, perhaps, that provides modern language teachers with their greatest challenge.

Since we can observe students of all abilities successfully learning foreign languages, it is difficult to avoid the conclusion that all of our students have a potential for foreign language learning and that, given the right opportunity, conditions and motivation, they can succeed. We need only look at what they can achieve in their first language –

that is their potential. The question for us educators is: how close to that potential can we enable them to get?’<sup>1</sup>

The QCA (2001) also describes how appropriate modern foreign language learning provision can lead to diverse benefits:<sup>1</sup>

#### *Acquiring knowledge and understanding of the target language*

Knowledge and understanding of an MFL begin with pupils exploring their immediate physical environment through the senses. They may become aware of, and understand, the differences between such an environment and a more distant locality. Pupils gain knowledge and understanding of differences in language and culture through materials, artefacts and meeting people from places, which are socially and culturally different from their home environment.

#### **Developing language skills and language-learning skills**

Teaching MFL across the key stages can help pupils to develop both of these aspects of the programme of study by encouraging them to:

- Listen and respond to foreign language songs, poems, or stories, which have rhyming or repeated words. Staff may vary the repetition by saying things loudly, quietly, quickly or slowly
- Listen carefully and discriminate between sounds, identify some meaning from words and intonations, and develop auditory awareness, *for example, using audio, video tape or CD-ROM*
- Respond to a certain word or phrase, *for example, a greeting*
- Use symbols and audio-recordings, *for example, a Language Master*, to associate a word and object, and to record themselves or others
- Increase social skills by providing new context for communication and interaction, *for example, taking part in pair and group work and developing turn-taking skills*
- Express their own views about people, places and environments by showing a preference or by expressing likes and dislikes, *for example, using a growing vocabulary of words, symbols, gestures and facial expressions*
- Develop general language skills through new learning experiences, resulting in the positive acquisition of a simple, relevant vocabulary that can be used for practical communication at a level appropriate to their ability

- Respond to, use and understand words and phrases which are reinforced with visual aids, *for example, in a game with real objects, using puppets, video, picture flashcards and gestures*
- Communicate messages by sending information in the form of pictures or text by e-mail
- Enhance self-esteem through opportunities for new achievements.

## Developing cultural awareness

Cultural awareness begins with pupils' recognition that everybody is different. Contact with people and material from other countries brings cultures alive and gives meaning and purpose to the study of MFL. Inviting people who speak other languages into school or using the internet, videos, brochures and magazines, can help pupils to see the differences in language and culture. This helps pupils see themselves as part of a multi-cultural society with a wide variety of languages, foods, festivals and celebrations. There may be opportunities to meet pupils' parents and families who may speak other languages, to create links with local schools which have foreign language assistants on the staff or to make contact with a partner school abroad. Teaching this aspect across key stages can help pupils to:

- Collect, explore and sort objects and artefacts from a foreign country
- Respond to, and use, a range of resources for information and exploration, *for example, photographs, tactile pictures, postcards, CD-ROMS, videos, artefacts, and stories*
- Be aware of other people and observe similarities and differences, *for example, focus on specific aspects of culture, such as people, food, festivals, dance, music or art in cross-curricular learning.*

The added value realized through quality foreign language education provision to learners with special needs can be summarized as enhanced:

- Equal opportunities and social integration
- Access to the European dimension
- Enhanced personal and social development
- Enhanced professional development and preparation for working life
- Enhanced foreign language teaching applicable to SEN and non-SEN learners
- Social cohesion

## CHAPTER 5 RECOMMENDATIONS

**TEACHING LANGUAGES TO LEARNERS WITH SPECIAL NEEDS****EUROPEAN COMMISSION DG EAC 23 03 LOT 3*****The Teaching of Foreign Languages to Learners with Special Educational Needs***

This list of recommendations has been compiled according to several policy and implementation levels which are inter-connected. Each relates to the equality of foreign language educational provision, and access to the European educational dimension. The recommendations aim at ensuring that the momentum of earlier relevant initiatives, particularly those highlighted in the European Year of Disabled People 2003, is maintained and enhanced.

Each recommendation has been considered in terms of feasibility, impact and potential multiplier effects. The levels are societal (societies, and the social collective of the European Union); systems (member state educational systems); strategy (where professional research and practice-based expertise is used to provide specialist insight and development); and practice (the schools, colleges or other learning environments where implementation occurs).

**SOCIETAL (societies and the social collective of the European Union)**

- *Establishing Right of Entitlement Appropriate to Needs and Abilities*  
That the Council of Ministers, or equivalent body, reiterate that language learning in basic education is fundamental in ensuring a broad and balanced education within the member states and that all learners should have the right of entitlement to opportunities for foreign language learning appropriate to their needs and abilities.
- *Satisfying the Need for Data*  
That the European Agency for Development in Special Needs Education, and other relevant bodies such as Eurydice establish an initiative which will provide an indicator of Europe-wide foreign language learning uptake and duration by special needs pupils, in special and mainstream schools, according to age, category and target languages.
- *Articulating Good Practice, Success and Added Value*

That the European Agency for Development in Special Needs Education, and other relevant bodies, such as national agencies responsible for European Language Labels, establish a resonance group geared to production of a publication for policy-makers and educators, which exemplifies good practice, success and added value in foreign language learning by special needs pupils across Europe. This would re-assert the role of foreign language learning in personal and social development as defined within human rights legislation, and exemplify its role as a cornerstone of education in Europe for all citizens. This could be similar to similar to ICT in SNE (c.50 pages) [www.european-agency.org](http://www.european-agency.org).

The resonance group should act in cooperation with existing providers which have produced similar localized documents, so as to facilitate transferability of insight into localized landmark examples of good practice being communicated across the Union.

- *ICT Accessibility, Interoperability and Applicability*

That the European Agency for Development in Special Needs Education, in conjunction, with, for example, the [World Wide Web Consortium](http://www.w3.org), establish a think tank to explore web site accessibility, interoperable technologies and usability of language learning resources particularly in relation to accessibility to browsers and media players, and the potential of assistive technologies.

In order to achieve this, a specific project consortium should examine standards of software applications quality and interoperability in ICT applications, alongside development of accessible media, suitable for specific SEN groups. This could be based on, and partly utilize SEN-IST-NET resources 2001-2003, Information Society Technologies (IST) for Special Educational Needs (SEN) <http://www.senist.net> but be focused on foreign language and related learning.

- *Developing the Common European Framework of Reference for Languages*

That the Council of Europe, and other relevant bodies further develop the Common European Framework of Reference for Languages, and the European Language Portfolio, so as to discriminate between achievement levels at the lower end of the scale such as those developed by the UK-based Qualifications

and Curriculum Authority (P- Performance Indicator Scales). In addition, examine if it is possible to develop specific CEF methodological features/guidelines for teaching foreign languages to SEN pupils.

- *Adapting Existing On-Line Autonomous Language Learning Diagnostic Instruments*

That the DIALANG European Economic Interest Group expertise, and/or other relevant assessment bodies, examine the feasibility of providing adapted autonomous foreign language diagnostic tools and instruments for older SEN pupils which support the self-assessment of learning progress at the lower end of the scale.

- *Creating a Parent-Learner-Teacher Decision-making Support System*

That a specific project consortium design a collaborative virtual learning environment based on language learning strategies and use of assistive technologies which enables a teacher and pupil, or parent and pupil, to outline optimal language learning paths. This would provide an individual pupil profile based on the language learning abilities and disabilities of each pupil which can then be used in Individual Educational Plans (IEP).

- *Establishing and Extending European Network Platforms*

That a single specific project consortium establish European networking systems on foreign language learning for both pupils and teachers which allow for direct contact within and across SEN groups.

- *Defining the Status of Sign Languages*

That relevant European institutions, and member states, further clarify the status of sign languages so that appropriate language learning project funding can be accessed accordingly.

- *Establishing a Multilingual Internet-based Materials Repository*

That a specific project consortium establish a multilingual internet-based materials bank (repository) suitable for those with learning, sensory and other difficulties. This should also include appropriate training resources for teachers. It is recommended that this be set up as a Language Portal according to the principles used with the Educational Resources Information Centre

(ERIC) database. ERIC operates as an information system which provides access to a range of resources and teaching/learning materials. An ERIC-style database could categorize teacher/school produced materials, alongside others, according to SEN categories and provide extra support for language teachers in particular during the process of inclusion of SEN pupils into mainstream schools.

- *Consolidating Expertise for Designing Developmental Solutions*  
That a forum be convened which brings together a inter-disciplinary fusion group of researchers, policy makers and practitioners across Europe to identify key competence-building initiatives which enhance language learning solutions for SEN learner categories with a view to funding applications for specific developmental projects focused on language and SEN teacher development.

#### **SYSTEMS** (member state educational systems)

- *Articulating the Rights and Potential Achievements of SEN pupils Learning Foreign Languages*  
That the right to foreign language learning by all pupils is further articulated to schools, teachers and parents alongside localized 'landmark' examples of good practice and successful educational outcomes. This could be done through national European Language Label groups, and other relevant bodies, so as to further support the Charter of Luxembourg (1996) *A School for All*, The Treaty of Amsterdam (2000) *Article 13*, and the European Parliament Resolution (2001) *Equal Rights for People with Disabilities*, and The European Disability Forum *Madrid Declaration* (2002). These outcomes should be described in relation to both linguistic and communicative competence, and enrichment in terms of European citizenship, multiculturalism, interculturalism and individual confidence-building.
- *Developing Local Resource Centres*  
That administrative organizations, and other relevant bodies, set up or further develop a network of SEN resource centres (also known as knowledge centres) and include SEN foreign language advisory services for teachers, parents, and pupils. Likewise existing Language Resource Centres should ensure that sufficient attention is given to teaching foreign languages and SEN.

- *Developing Means for Identifying 'at risk' Learners*  
That research institutes, and other relevant bodies within the country, and in other countries, examine comparative diagnostic approaches and frameworks used to identify pupils at risk of encountering learning difficulties in languages.
- *Articulating the Need for Further Professional Competence-building*  
That teacher training institutes, other providers, and professional associations, further respond to the processes of inclusion by articulating the need for all language teachers, not just those employed as SEN specialists, to be sufficiently trained so as to accommodate the interests of SEN pupils learning foreign languages in mainstream schools.
- *Collecting Data on Creating Localized Professional Competence-building Solutions*  
That research institutes, and other relevant bodies, conduct localized surveys on how teachers respond to the inclusion of SEN pupils into foreign language mainstream classes so as to inform decision-making processes to be made on the nature and extent of funding, monitoring and development of appropriate initial and in-service educational programmes.

Specific attention should be given to identifying those pupils who are not formally recognized as having special educational needs, but who have been withdrawn from foreign language learning, particularly those whose first language is not the major medium of instruction in the environment.

Such data needs to be considered in terms of the amount of time devoted to special needs theory and practice in general, and within this the teaching and learning of languages, both first and additional, in initial teacher education for primary and secondary levels.

- *Preparing Foreign Language Teachers for Diverse Learning Needs*  
That teacher training institutes examine the extent to which understanding of individual foreign language learning strategies is incorporated into initial language teacher education for SEN and non-SEN specialists.
- *Providing Teaching/Learning Materials*



That thematic units (10+ hours), be constructed in the form of modules, preferably drawing on topics which contextualize the European experience. These should be flexible enough to accommodate a broad range of SEN pupils and be accompanied by ‘teacher/parent guidance’ information packs. Such modules would not only act as learner-based materials, but also as a means of developing teacher competence in SEN and foreign languages.

- *Providing and Maintaining ICT Financial Support*

That funding mechanisms, provide the financial incentives to subsidize development of and better access to ICT hard and software for SEN foreign language learning, teacher training in using applications, and ongoing technical support for schools.

- *Learning Languages across the Curriculum (CLIL)*

That administrative and professional organizations, and research institutes, investigate the potential of alternative language learning programmes by which foreign languages could be learnt across the curriculum (content and language integrated learning) in SEN curricula.

- *Recognizing Foreign Language Learning Achievement*

That those national agencies responsible for foreign language learning performance appraisal are pro-active in providing evaluation processes which recognize performance thresholds suitable for lower end, and alternative, forms of achievement. This would help ensure that performance appraisal does not act as a disincentive for inclusion of SEN pupils into mainstream foreign language learning classrooms.

**STRATEGY** (where professional research and practice-based expertise is used to provide specialist insight and development);

- *Consolidating Researcher-Practitioner Expertise*

That a researcher-teacher fusion group representing Europe 25+ produce a pan-European literature review of SEN and language teaching/learning including a specific section on ICT, SEN and language learning within the framework of a project. This would ideally build on the existing resource found at <http://www.specialeducationalneeds.com/mfl/biblio.doc>

- *Designing Examples of Good Practice and Quality Appraisal*

That research institutes examine how to develop good practice and develop instruments of quality appraisal of language learning provision for SEN pupils.
- *Encouraging Inter-disciplinary Cooperation*

That research institutes, professional associations, schools and other bodies should further cooperate in:

  - ◆ Establishing inter-disciplinary forums by which to greater integrate knowledge of theory and practice of SEN and language learning.
  - ◆ Examining the possibility of supporting Local Area Networks (LAN) by which more experienced language and SEN-language oriented teachers cooperate with less experienced teachers in identifying good language learning practice suitable for specific types of school, class and learner.
  - ◆ Managing the professional threats resulting from inclusion through providing newsgroup style bulletin boards enabling educators to voice opinions and share insights on SEN and language learning.
  - ◆ Producing evidence in accessible form for SEN pupil parents and carers so as to engage them fully in decision-making on whether or not their child should learn foreign languages by providing clear but authoritative guidelines and evidence of first-hand experience.
  - ◆ Designing localized benchmarks suitable for the learning of any additional languages which lead to alternative certified language learning programmes for adoption into Individual Educational Plans, and thus encourage a positive approach towards learning achievement.
  - ◆ Developing the modules required for teacher in-service training so as to be better able to manage such certified language learning programmes.
  - ◆ Designing frameworks for teachers, parents, and pupils, handling Individual Educational Plans (IEP) on foreign language learning approaches, performance and goals. Special attention should be given to alternative certification performance levels which may be reached by pupils with modest linguistic aims. This should also be linked to the possibility of

‘lateral progression’ whereby a pupil learns a modest amount in one language, and then rather than progressing onwards, takes an alternative language up a similar performance stages.

**PRACTICE** (the schools, colleges or other learning environments where implementation occurs).

- *Articulating School Policies*  
That school-based policy statements be produced on provision and value of language teaching for all pupils irrespective of SEN status, whether temporary or longer-term, in relation to European citizenship.
- *Identifying Language Learning Objectives beyond Communicative Competence*  
That the goals of SEN pupils learning foreign languages such as European citizenship, intercultural learning, building communicator self-esteem, social networking, amongst others be identified holistically and to explore the potential of ‘lateral progression’ – involving the achievement of modest learning outcomes in more than one language.
- *Identifying Educator Foreign Language Competencies*  
That the potential of SEN teachers, who are not qualified as language teachers, but who have sufficient competence in a target language to use it as a medium of learning, be considered in relation to learning across the curriculum and curricular ‘lateral progression’. Recognition of these resources, and appropriate guidance could facilitate overall access to language learning provision within a given school.

### **Chapter 3: The Language Awareness Dimension**

*Language Awareness & CLIL*, (2007) Encyclopedia of Language and Education, New York & Berlin: Springer Science and Business Media

### Language Awareness and CLIL

The term Language Awareness (LA) covers a broad range of issues relating to learning, teaching and using languages. These include knowledge about a language itself; how people best learn languages; and how they communicate in real-life situations. Correspondingly, it involves achieving deeper understanding of how language is used to achieve specific goals in communication. These may be largely positive, as in building synergy through relationships, and effective transfer of ideas; or largely negative, as when language is used to influence people through manipulation and discrimination.

Content and Language Integrated Learning (CLIL) is a generic term which refers to the teaching of subjects in a different language from the mainstream language of instruction. It is an educational approach in which diverse methodologies are used which lead to dual-focussed education where attention is given to both topic and language of instruction. ‘... achieving this twofold aim calls for the development of a

special approach to teaching in that the non-language subject is not taught *in* a foreign language but *with* and *through* a foreign language (Eurydice 2006: 8).

Applications of CLIL are multifarious depending on educational level, environment and the specific approach adopted. The learning outcomes tend to focus on achieving higher levels of awareness and skill in using language in real-life situations, alongside the learning of subject matter. This approach can be viewed as being neither language learning, nor subject learning, but rather an amalgam of both. Successful application involves utilising and developing a broad range of language awareness capacities.

#### *Early Developments*

The development of foreign language learning has clearly been influenced by various trends over the past fifty years. Whilst these trends shifted from predominant focus on 'form' to 'meaning', and corresponding methodological approaches were applied, three major operational issues have remained of key importance. The first involves ensuring a high degree of learner motivation when teaching groups of individuals who have diverse preferred learning styles. The second involves the distinction and overlap between language acquisition and language learning as relating to optimal learning environments. The third concerns the amount of time which can be allocated to language learning within the educational curriculum.

The language awareness movement developed in relation to both first and second language learning during the 1980s (Hawkins, 1984; Donmall, 1985). Originally focusing on explicit knowledge of grammar and function, it attempted to seek commonality of interest between those involved with first and second language teaching, and promote the curricular concept of 'languages across the curriculum' (Barnes et al., 1969). Much of this work was carried out in the United Kingdom in

relation to social inequalities and low standards of literacy in the first language (Davie et al. 1972). Recent international statistics (PISA, 2003) exemplify the ongoing scale of the problem by showing that some 20% of European 15 year olds have serious difficulty with reading literacy in the first language.

Because the field is so wide, language awareness can be found as an issue of interest in both first and second language learning which crosses many academic boundaries. A driving force since the 1980s has been on the learning of a second language, and critical language awareness. This has resulted in primary focus on the learner, the user of language, being actively involved in understanding the process of learning as an individual, and the use of language in communication.

There is an international association which describes the area as focusing on 'explicit knowledge about language, and conscious perception and sensitivity in language learning, language teaching and language use' (ALA, 2006).

Turning to one aspect of the language awareness movement, namely how people effectively learn languages, leads us to the educational approach known as Content and Language Integrated Learning (CLIL). The CLIL movement developed in Europe through the 1990s with active investment support from the European Commission (Marsh, 2002).

The term was launched in 1996 to denote a dual-focussed educational approach in which an additional language is used for the learning and teaching of both content and language.

Proponents wanted to bring good practice from differing types of bilingual learning environments into mainstream education so as to enhance language learning, usually in the second language. This includes forms of immersion, content-based language teaching, language across the curriculum, amongst others. The major objective was to determine how language-supportive methodologies worked, and what outcomes might

be expected. What happened, over time, was that forms of CLIL focussed more on the content, rather than on the language. This would be the single most distinctive difference between such forms of CLIL and immersion.

(CLIL) is inspired by ‘important methodological principles established by research on foreign language teaching, such as the need for learners to be exposed to a situation calling for genuine communication’ (Eurydice, 2006:9). These principles are often geared towards drawing on types of higher language learning capacities which are a major focus of those working on language awareness. CLIL usually goes beyond aiming for development of types of lower order thinking skills (Bloom 1984) towards higher order skills. This is what often differentiates CLIL from types of language learning approaches which are also content-oriented.

In those educational environments where language learning is considered particularly important, there is inevitably curricular pressure which reduces the amount of time available. This restriction of time allocated requires decisions to be made about what should be taught, and for what purpose. Even if the methodologies used to teach languages are broadly effective in developing a learner’s sensitivity to the role that language plays in human interaction, and other features of language awareness, it is reasonable to assume that lack of time plays a decisive role in what can be reasonably achieved within the classroom. ‘CLIL enables languages to be taught on a relatively intensive basis without claiming an excessive share of the school timetable’ (Eurydice, 2006:9).

Curricular pressure also influences learner motivation. In order to cater for groups of learners, and fulfill curricular requirements, it is inevitable that homogenization of methods and materials will work against accommodating diverse individual language learning styles. ‘Among the factors that recent studies have emphasized (within second language acquisition), three are of motivational importance for the



CLIL teacher. The first one, an integrative orientation towards the target language group, that is a desire to learn a language in order to communicate with people of another culture who speak it. Second, pedagogical factors, such as the effects of classroom environment, instructional techniques, and attitudes towards the language teacher and course. And third, the students' linguistic confidence, that is their belief to have the ability to produce results, accomplish goals or perform tasks completely, and in the case of an L2 to do all this with low levels of anxiety as well' (Munoz, 2002:36).

These fall within the remit of (critical) language awareness, whereby language itself becomes meaningful for the student both in terms of its structure, and how it is used in real-life contexts. Thurlow (2001:214) introduces the notion of 'communication awareness' to describe how communication becomes 'meaningful, to young people themselves; ...how they articulate their own understanding and experience of communication'. CLIL methodologies often serve to enact this experience both in terms of the second language, and the first language in some ways.

As a generic term, CLIL describes a wide range of educational practice. This type of methodology has taken root in various parts of the world, for possibly quite different reasons. Some of these may not actually be specific to language learning, but rather other inter-linked goals which can be broadly considered as developing language awareness through experiential forms of learning (Coyle, 2005). Across Europe, these have been identified as serving cultural, environmental, language, content, and learning-oriented knowledge and skills (Marsh, et al. 2001). Globally, attention is now being paid to a synthesis of these, focusing on content, culture, communication, and community. A major interest is in how appropriate use of these methodologies serves to enhance cognitive development.

*Major Contributions*

Language learning, and within this language awareness, is an area of growing interest because of the pace of global, social and technological change. Cultural diversity, and the use of the new technologies for new or adapted forms of communication, results in an ever greater need to explore how the role of language impacts on individuals in their interaction with the wider world. Put simply, globalization and the 'knowledge societies' in which we increasingly live are leading to a re-thinking about maximizing literacy levels in first and second languages, and in specific language domains. This has resulted in the development of integrated educational approaches which develop the knowledge and skills required for an increasingly inter-connected world.

Since the 1990s, Europe amongst other continents, has witnessed a knowledge revolution in education resulting mainly from increasingly widespread access to the Internet and the new technologies. CLIL can be seen as a practical application of the 'Knowledge Triangle' which integrates education, innovation and research. 'Some would argue that one effect of this on young people concerns the purposive ness of education and an increasing reluctance to postpone gratification. Teachers and others argue that some students are no longer willing *to learn now for use later*, which is a form of deferred purpose, but prefer *to learn as you use and use as you learn* which suits the immediacy of purpose common to the times' (Marsh, 2002: 66).

The field of language awareness has been heavily influenced by the need to go beyond achieving only utilitarian skills when learning languages. Bruner (1983) argued the need for a Language Acquisition Support System (LASS) by which to utilize Chomsky's (1972) Language Acquisition Device (LAD). This was influential in discussion of a natural approach to language learning as described by Krashen and Terrell (1983). It was argued that learning a foreign language under school conditions requires the use of some form of LASS. Hawkins (1999) describes this as leading to more than the development of utilitarian skill in using the language for specific purposes. He considers a range of language

awareness features including reflection on the first language, and development of Halliday's (1978) 'mathetic' function, which concerns a holistic approach combining the development of language-for-learning with language-for-action.

These are summarized by van Lier (1995:xi) in his definition of language awareness: 'Language awareness can be defined as an understanding of the human faculty of language and its role in thinking, learning and social life. It includes an awareness of power and control through language, and of the intricate relationships between language and culture'.

Providing opportunities for learners to be immersed in a form of holistic learning environment can be provided by forms of 'language across the curriculum' such as CLIL. Clearly this can be achieved through various forms of language teaching approaches. However, language teaching, separated from other subject learning, often faces constraints which prevent this type of holistic goal from being achieved. The main reasons for this are usually to do with context, methodologies and time.

Put simply, a language learning classroom is usually an artificial environment because regardless of what is done within the lesson, language learning is the main aim. This can have a negative impact on certain types of learners, especially over time, because of issues relating to relevance and authenticity. In a CLIL context, the focus shifts from language to achieving, or otherwise learning about, some other goal, so the language learning falls into the background, and learning becomes more incidental.

The situation common in the early development of CLIL as a means for developing language awareness was characterized by the need to search for a complementary extra platform for developing language learning. This 'extra space' would then enable specific forms of methodology to be used to achieve goals not attainable within a time and resource-restricted language learning slot within a curriculum. These methodologies evolved into a form of education which surpasses 'language

learning', taking place in forms of 'integrated language acquisition-rich' learning environment.

This has resulted in moving beyond linguistic goals which are predominantly utilitarian, towards those that are pragmatic. These pragmatic goals involve the student learning how words are used to elucidate action and link to the seminal work of J.L. Austin (1962). Working in rich communicative environments which require performative action engages the individual, and helps develop holistic language awareness. This is difficult to achieve in a language lesson where the main focus is on 'doing things with words' and not 'using words to achieve things'. In CLIL the target language needs to go beyond being a 'vehicular language' towards a 'mediation language'.

Wolff (2006: 16) observes '(CLIL) is based on the well-known assumption that foreign languages are best learnt by focussing in the classroom not so much on language – its form and structure – but on the content which is transmitted through language. Compared to other content-based approaches the specific novelty of this approach is that classroom content is not so much taken from everyday life, or general content of the target language culture, but rather drawn from content subjects or academic viz. scientific disciplines'. This has led to reports of high learner motivation (Huibregtse, 2001), with the CLIL approach viewed as appealing to a range of preferred language learning styles, and satisfying the language learning goals outlined by those working within Language Awareness.

Citing Fishman (1989:447), Baetens Beardsmore (2002:24) observes 'the propagation of CLIL responds to the growing need for efficient linguistic skills, bearing in mind that the major concern is about education, not about becoming bi- or multilingual, and that multiple language proficiency is the added value which can be obtained at no cost to other skills and knowledge, if properly designed'. Research by Coyle (2000), Mäsch (1993), and Gajo (2002), provides insight into how CLIL achieves this objective within the curriculum.

Coyle (2002:28) observes that ‘language is learned through using it in authentic and unrehearsed yet scaffolded situations to complement the more structured approaches common in foreign language lessons’. De Bot (2002:32) notes that the success of CLIL in the Netherlands has ‘...encouraged other schools to follow suit and they have done so with remarkable success, now delivering students with above average scores not only for (the foreign language), but also for other languages and subjects’. Munoz (2002:36) observes that CLIL stretches the learners’ language and language learning potential through, for example, pushing learners to produce meaningful and complex language’.

Takala (2002:40) cites Mackay (1970), Stern (1983), Strevens (1977), and Spolsky (1978), as examples of foundation work which supports CLIL through seeking ‘to define what disciplines contribute to language education; what the tasks of theoreticians, applied linguists and practitioners are in language education; and what factors/major variables interact to place language learning into its sociopolitical context’. This relates directly to the broad basis of defining and operationalizing language awareness in the curriculum. In order to achieve the types of cognition and language use required for CALP (Cummins 1979), a procedural approach to developing language awareness and language learning is required. It could be argued that it is the cognitive demands of the content learning, supported by structured language input and use of interactive methodologies, and the time allocated within the curriculum, which allow a procedural approach to the development of language awareness to take place.

The European CLIL movement has various origins because it developed for diverse reasons in equally diverse contexts. What unites these developments is the pursuit of goals which fall largely within the framework of language awareness. There is also a historical dimension which plays a key role. The term CLIL, though introduced in 1996, was adopted to draw together a range of ‘bilingual education’ models and experiences, some of which had been practised for 20 or more years in Europe.

Outside of Europe, the major contributions originally came from the work on immersion in Canada, where more than one thousand key studies have been

published (Genesee, 1987; Swain and Lapkin, 1982). But those CLIL models which gave particular interest to how content is negotiated and learnt, and how thinking skills are applied, meant that predominant interest in language became diminished. This would inevitably lead to a process of divergence from immersion.

In Europe, the methodological experimentation has generally occurred before the application of research procedures, but the work on immersion in Canada has been a major catalyst as noted in Eurydice (2006:8), 'While it has gradually become clear that the Canadian experience is not directly transferable to Europe, it has nevertheless been valuable in stimulating research in this area and encouraging the development of a very wide range of experimental activity'.

#### *Work in Progress*

In 2001, a pan-European survey was conducted on why CLIL was being introduced across Europe (Marsh et al., 2001). Five dimensions were identified, each of which included a number of focus points. Each dimension was seen to be realized differently according to three major factors: age-range of learners, socio-linguistic environment, and degree of exposure to CLIL. This survey report is complemented by more extensive follow-up research on a comparative overview of CLIL provision in Europe which reports similar aims (Eurydice 2006). The diverse aims of CLIL, as found in these differing dimensions, are an important influence which affects how researchers and practitioners describe this educational approach.

The dimensions are idealized and rarely standing alone, because they are usually heavily inter-related in CLIL practice. This means that in real-life implementation of CLIL, it is likely that a school will wish to achieve successful outcomes in relation to more than one dimension at any given time. These dimensions, particularly those under Culture (Cultix) and Language (Lantix) directly relate to the types of interests found within Language Awareness; knowledge about language, sensitivity to aspects of language learning, insight

into language use, especially in terms of critical thinking skills, and interpersonal communication.

Distinguishing the dimensions allows us to identify the separate, yet interlocking reasons why CLIL is implemented in diverse European contexts. The 2001 survey report was a first step towards describing CLIL types because the core characteristic of any type depends on the major and predominant reason for teaching through CLIL. It follows the work on situational and operational variables in bilingual education reported by Mackay (1970) and developed further by Spolsky et al. (1974).

The dimensions reported do not denote specific types of CLIL. They concern the goals underpinning CLIL models. It was often found that as many as three or four goals, drawn from different dimensions, might be given as fundamental reasons for implementing CLIL. One issue which was considered significant was that the Language Dimension was the least commonly reported overall. Thus the predominant reason for implementing CLIL was not language per se, but aims included within the Culture, Content, Learning or Environmental dimensions.

The dimensions are as follows:

#### 1. The Culture Dimension - *Cultix*

- A. Building intercultural knowledge & Understanding
- B. Developing intercultural communication skills
- C. Learning about specific neighbouring countries/regions and/or minority groups
- D. Introducing the wider cultural context

#### 2. *The Environment Dimension - Entix*

- A. Preparing for internationalization

- B. Accessing International Certification
- C. Enhancing school profile

### 3. *The Language Dimension - Lantix*

- A. Improving overall target language competence
- B. Developing oral communication skills
- C. Deepening awareness of knowledge of language, and language use
- D. Developing plurilingual interests and attitudes
- E. Introducing a target language

### 4. *The Content Dimension - Contix*

- A. Providing opportunities to study content through different perspectives
- B. Accessing subject-specific target language terminology
- C. Preparing for future studies and/or working life

### 5. *The Learning Dimension - Learntix*

- A. Complementing individual learning strategies
- B. Diversifying methods & forms of classroom practice
- C. Increasing learner motivation

(Marsh, et al. 2001:16)

Research in progress tends to focus on one or more of these dimensions. In terms of Canada, it is clear that a variety of different programmatic models and pedagogical strategies have been adopted and implemented. The same applies to any description of applications of CLIL in other environments.

Research interests tend to be on situational, operational and outcome parameters. These focus on the theoretical principles underpinning CLIL; the methodologies by which it is implemented; the learning environments; and means by which to assess impact. Like CLIL itself, findings are not easily generalized. However, there is an emerging theoretical basis for CLIL reported in Coyle (2005:6), which provides insight into how this approach can:

- Raise learner linguistic competence and confidence



- Raise teacher and learner expectations
- Develop risk-taking and problem-solving skills in the learners
- Increase vocabulary learning skills and grammatical awareness
- Motivate and encourage student independence
- Take students beyond 'reductive' foreign language topics
- Improve L1 literacy
- Encourage linguistic spontaneity (talk) if students are enabled to learn through the language rather than in the language
- Develop study skills, concentration – learning how to learn through the foreign language is fundamental to CLIL
- Generate positive attitudes and address gender issues in motivation

Following the work of Mohan & van Naerssen (1977), and Mohan (1986), Coyle (1999) introduced a framework by which to describe the inter-relationship between language and subject teaching common to successful forms of CLIL. Using a framework which incorporates attention being given to cultural, communicative, content and cognitive attributes - the 4Cs Framework, Coyle (2005:8) emphasises that the operating principles and outcomes of CLIL will not be found in the traditional spheres of either language or subject teachers. It is clear that the teaching and learning approaches differ to those generally found in both language and content teaching.

The 4Cs Framework is noted as building on these principles:

- Content matter is not only about acquiring knowledge and skills. It is about the learner constructing their own knowledge and developing skills;
- Content is related to learning and thinking (cognition). To enable the learner to construct the content, it must be analysed for its linguistic demands;

- Thinking processes (cognition) need to be analysed for their linguistic demands;
- Language needs to be learned which is related to the learning context, learning through that language, reconstructing the content and its related cognitive processes. This language needs to be transparent and accessible;
- Interaction in the learning context is fundamental to learning. This has implications when the learning context operates through the medium of a foreign language;
- The relationship between cultures and languages is complex. Intercultural awareness is fundamental to CLIL. Its rightful place is at the core of CLIL.

Work on CLIL now increasingly focuses on how the methodology achieves outcomes which fall within the domain of language awareness. Because CLIL involves inter-disciplinary cooperation, and integration, it builds bridges between different academic disciplines and the language sciences. And compared to such areas as sociolinguistics, psycholinguistics, or pragmatics, these bridges can be quite profound. This is why CLIL is viewed as being neither ‘language learning’ or ‘subject learning’, but a fusion of both.

Researchers in Language Awareness have described the need for conceptual shift, whereby the individual develops in a performative, or otherwise procedural way, from less aware to more aware about ‘explicit knowledge about language and conscious perception and sensitivity... in language use’ (Garret & James 2000). Drawing on the cognitive, cultural, communicative, and content input of methodologies, CLIL provides a procedural platform by which the student can undergo such conceptual shift, both experientially and intellectually.

#### *Problems and Difficulties*

The term CLIL was originally introduced to bind together diverse dual-focused educational practices where explicit attention is given to both content and language. The diversity involved makes it difficult to generalize research findings.

The fact that CLIL has often preceded theoretical description, and the relatively short period in which it has been widely introduced and practiced in different educational contexts, means that there will be an inevitable time lag between description and evidence of outcomes.

In addition, CLIL transcends traditional boundaries in education. This results in academic disciplines, publishers, and other facets of any educational infrastructure, needing to establish where it should be located in terms of practice, research and theory. This also means that it may challenge the status quo, the 'way things are', in a given environment. 'The organization of CLIL type provision in foreign languages makes demands that go well beyond those associated with traditional language teaching. It requires the use of human resources (specialist teachers) and suitable teaching materials to a significantly greater extent than conventional language teaching. Given that CLIL is a relatively recent practice in Europe, it is not surprising to note that over half of the countries concerned confront problems when the time comes to extend this kind of provision – or in some cases introduce it – on a general basis to the entire school population (Eurydice 2006:52).

An educational innovation on the scale of CLIL (Eurydice 2006:14) would be expected to go through a period of some turbulence in the early implementation and experimentation stages. Within countries studies are clearly being undertaken, to a greater or lesser extent, but there has been no coordination of research to date. In addition, because there is often no standardized CLIL blueprint suitable for export from one environment to another, so there is often a problem with drawing conclusions on impact in relation to aspects of language awareness.

#### *Future Directions*

The new global linguistic order is particularly marked with respect to the spread of English as medium of instruction. In Europe, CLIL has emerged in response to the need to raise levels of plurilingualism so that more citizens have greater competence in different languages. But, globally, we are increasingly witnessing a rapid adoption of English as a medium of instruction in environments where it may be considered a second or foreign language.

Changing the medium of instruction from one language to another in an educational context does not automatically qualify as an example of CLIL. This approach requires use of *dual-focussed language-sensitive* methodologies alongside change of medium of instruction from one language to another. What we are witnessing, worldwide, is a rapid adoption of English as medium of learning, from kindergarten in East Asia, through to higher education in Europe. Much of this is being done without adaptation of teaching and learning approaches, and it is likely that there will be negative consequences, especially in lower-resourced developing contexts. CLIL is an educational approach which is essentially methodological. It goes beyond change of the medium of instruction. Communicating this to stakeholders will be an ongoing key process worldwide, even if the reasons for medium of instruction problems, and opportunities, differ widely.

The CLIL ‘generic umbrella’ includes many variants. Some of these may be considered as primarily language teaching. Some can be seen as mainly content teaching. The essence of CLIL leads to it having status as an innovative educational approach which transcends traditional approaches to *both* subject and language teaching. It is likely that other forms of educational integration will surface which also lead towards similar methodological adaptation and change.

When CLIL is incorporated into the curriculum, language takes its position at the centre of the whole educational enterprise. Teachers consider themselves to be responsible for language development to a greater or lesser extent, even if the language focus takes a secondary role to content. Students are empowered to learn how language is used to achieve goals. The design and implementation of initial and in-service teacher education which ensures that optimal goals are reached is likely to continue to be a key issue requiring research-based expertise.

The language focus within CLIL is invariably on facets of language awareness. This may involve learners having greater understanding of the types of language

needed to learn content, the types of thinking skills required for achieving different learning outcomes, and the types of preferred learning styles and strategies which individuals possess. Van Lier (1995) introduces the notions of subsidiary/peripheral and focal awareness. Focal awareness on how we use language to achieve goals through integrated education is now a key interdisciplinary research issue.

As socio-political pressures support wider implementation of adopting a second/foreign language as medium of learning, it is likely that greater emphasis will be placed on examining how CLIL methodologies can enable successful outcomes to be achieved. This will open doors on research which examines language awareness outcomes in relation to specific types of CLIL application.

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## **Chapter 4: The Emergent Educational Neurosciences Dimension**

*Study of the Contribution of Multilingualism to Creativity* (2009)  
European Commission, Public Services Contract EACEA/2007/3995/2,  
Brussels: European Commission

### Towards an Evidence-base

This section consists of (a) a commentary text, and (b) an Internet-based inventory of selected research publications.

The **commentary** is written for a broad audience. It is not a scientific evaluation of the separate publications examined, but is a synthetic overview of the relationship between multilingualism and creativity as revealed in rapidly evolving research evidence.

The commentary has been compiled by an inter-disciplinary team of language-focussed specialists following a rigorous process of retrieval, analysis and appraisal of research readily available in the public domain. It provides **a broadly outlined response to the quest for evidence which tends to reveal the benefits of multilingualism for creativity**. It is not an evaluation of the general advantages and disadvantages of multilingualism, but acts as a scan report on research reporting which directly or indirectly has bearing on links between multilingualism and creativity.

The **inventory** of research-based publications is linked to the following five assumptions.

- There is a link between multilingualism and creativity
- Multilingualism broadens access to information
- Multilingualism offers alternative ways of organizing thoughts
- Multilingualism offers alternative ways of perceiving the surrounding world
- Learning a new language increases the potential for creative thought

The inventory provides summary information on these research-based publications, all of which are retrievable through various channels. Each entry is classified according to three categories: indicator, context, and source. Some entries also carry 'quotations of special interest' from the original source. These can be accessed where:

- *Indicator* is a summary statement of research results
- *Context* briefly situates the research
- *Source* is the full reference required to locate the publication

*Creativity, innovation and multilingualism* are dynamic terms frequently understood differently within and across languages and contexts. One

reason for this is that the key concepts underpinning each are of acute importance in different sectors of our societies, which leads to various interpretations ranging from highly specific attempts at scientific definitions to broad anecdotal usage.

This report uses definitions which were pre-determined by the original terms of reference of the call for tender, and adapted after subsequent consultation.

## 1. Operational Definitions of Key Terms

### Creativity

The definition of *creativity* used here is ‘imaginative activity fashioned so as to produce outcomes that are both original and of value’ (NACCCE 1999: 30). It usually entails taking an existing concept and synthesizing it with other concepts. This, in turn, is followed by an emergent process for creativity which can be considered as the ability to think of something new by extending conceptual boundaries. The term for this in cognitive psychology is ‘*creative conceptual expansion*’.

‘Human history is rich with examples of high creative activity including those which can be assessed as manifestations of genius. At the same time, creativity in its higher manifestation is the unique ability of individuals and the undiscovered mystery of the brain. However, if we define creativity as the ability of the individual to generate ‘novel unusual ideas, to avoid stereotypic schemes in thinking, and to rapidly resolve problem situations’ ... then it is reasonable to think that manifestations are encountered more frequently.’

(Bekhtereva et al. 2001: 390)

### Multilingualism

Multilingualism as used in this report is to be understood within the framework of European Commission documentation:

‘... the ability of societies, institutions, groups and individuals to engage, on a regular basis, with more than one language in their day-to-day lives.’

(EC 2007:6)

This broad definition embraces the distinction made by the Council of

Europe between ‘multilingualism’ and ‘plurilingualism’, where multilingualism refers more to social organisation, and plurilingualism to an individual repertoire of linguistic competence.

‘Multilingualism refers here exclusively to the presence of several languages in a given space, independently of those who use them, for example, the fact that two languages are present in the same geographical area does not indicate whether inhabitants know both languages, or only one.’

(Council of Europe: 2007a:17)

Plurilingualism, on the other hand, refers to:

‘The ability to use several languages to varying degrees and for distinct purposes is defined in the Common European Framework of Reference for Languages (p.168) as the ability ‘to use languages for the purposes of communication and to take part in intercultural action, where a person, viewed as a social agent, has proficiency, of varying degrees, in several languages and experience of several cultures’. This ability is concretised in a repertoire of languages a speaker can use.’

(Council of Europe: 2007a:17)

The distinction is significant since it is the notion of individual skills that is thought to lead to positive outcomes. These bring together the social and individual features subsumed in the European Commission’s broad definition given at the outset.

‘The language learner becomes plurilingual and develops interculturality. The linguistic and cultural competences in respect of each language are modified by knowledge of the other and contribute to inter-cultural awareness, skills and know-how. They enable the individual to develop an enriched, more complex personality and an enhanced capacity for further language learning and greater openness to new cultural experiences.’

(Council of Europe 2007b: 43)

To summarise, the terms multilingualism and plurilingualism, as defined by the Council of Europe, are subsumed under the term ‘multilingualism’ for the purposes of this report.

‘What the term (plurilingualism) refers to is the capacity of individuals to use more than one language in social communication whatever their command of those languages. This set of skills constitutes the complex but unique competence, in social communication, to use different languages for different purposes with different levels of command.’(Beacco J-C, 2005: 19)

## Innovation

By understanding creativity as ‘imaginative activity’, we can view innovation as processes or outcomes which are both ‘original and of value’. Therefore, **creativity generally precedes innovation**.

‘Creativity is the way an individual succeeds in changing his or her perception. To innovate is to make something new in the system; whereas to be creative means thinking up a new system. Innovation is linked to action, creativity to thinking. Innovation can be continuous; creativity will inevitably be discontinuous. As Picasso said, to create you must break.’ (de Brabandere 2005: 10)

‘Innovation and knowledge have been recognised as the driving forces for sustainable growth in the framework of the Lisbon strategy for the future of Europe. Creativity is central to innovation.’ (EC 2009)

## 2. Approaching Multilingualism and Creativity

Creativity and innovation have been a key focus of attention across the globe in recent years. This is partly due to the need to further develop human capital. Human capital includes those competences such as innovation and possessing knowledge which contribute to economic performance and social cohesion.

This has led to an examination of which features of human potential could be recognised and further developed as human capital so as to achieve desired socio-political goals.

The European Year of Creativity and Innovation places creativity, innovation, and multilingualism under the spotlight. At this point in time, there is considerable anecdotal evidence for arguing that the ability to use more than one language leads to creative and innovative outcomes for individuals and the societies in which they live.

‘For more than 2,000 years, philosophers and psychologists have been intrigued by the notion that language study may enhance an individual’s general cognitive abilities’

(Bamford and Mizokawa, 1991: 413)

Anecdotal evidence can be very significant. It includes evidence that may not yet have been subjected to rigorous scientific analysis. This should not reflect negatively on the anecdotal evidence itself, but take into account that sufficient scientific studies have not yet been fielded. This is particularly the case with arguments about any possible advantages gained through multicultural diversity in social and working life.

Current insight into **creativity** requires further research. There is much speculation that there is **a link between knowledge of languages and enhanced cognitive ability.**

However, relatively little research exists which specifically focuses on any relationship between **creativity** and **multilingualism**. And this is at a time **when creativity is viewed as a key driver for social and economic success** in the Knowledge Society.

‘Natural language is a core feature of human cognition and great efforts have been made to understand its mental and neural representation and use. Although most of the research has been devoted to explore natural language in monolingual speakers, the fact that a substantial proportion of the human population speaks more than one language calls for deeper investigations that address how one brain handles two languages.’ (Abutalebi & Costa 2008: 473)

Linking multilingualism to some form of specific added value such as ‘creativity’ is complex. One reason is due to the multi-dimensionality of language and the brain. Individuals do not live in a vacuum. Their capacity to think and act is determined by many surrounding influences. Indeed, some would argue that creativity is not an innate quality which individuals have, but something which is largely generated through interaction with the environment, including other people.

There are many factors which influence how knowledge of more than one language can lead to specific outcomes. Individuals are unique, and even if more than 50% of the world’s population are ‘bi- or multilingual’ to different degrees **we are barely scratching the surface in understanding the impact of knowing more than one language.**

The term ‘bilingual’ refers to an individual who uses two or more languages or dialects in his or her everyday life, regardless of the context of use. Taking this definition into account, more than half of the world can be considered bilingual (Giussani, Roux, Lubrano, Gaini and Bello, 2007: 1109)

There has been much work done on creativity from different perspectives, particularly in the field of artistic expression. But relatively

little has been achieved with respect to the inner workings of the mind. It is **highly likely that the multilingual mind differs in some respects to the monolingual mind**, but in what way and with what outcomes is at present an open question.

This report attempts to discover to what extent there is a difference between multilinguals and monolinguals with respect to creativity, if any, since the issue has not yet been scientifically addressed. It does not attempt to show that creativity cannot be achieved through monolingualism.

Finally, if there are differences in, for example, the neuro-circuitry of the monolingual and multilingual minds, does this actually lead to any advantage for one over the other? These are fundamental and substantial issues.

‘Creative products are in part a function of cognitive structures and processes; that is, the mind. Although there are many aspects of creativity that have been studied, such as environmental, educational, and historic factors, it is clear that an understanding of some of the fundamental workings of the human mind is essential for an understanding of creativity. Whenever there has been a creative discovery or invention, it has always emerged as the result of human efforts or insights.... **Understanding how the human mind functions is indispensable in understanding the creative process.**’

(Smith 2008: 509-510)

The available evidence shows that we are at a very early stage of understanding the impact of multilingualism on the brain, and on any form of resulting outcome such as creativity. This is a normal state of affairs in any research cycle. There may not yet be any direct causal link between multilingualism and creativity, but there are various pathways opened up through knowledge of another language considered as more likely to increase cognitive functioning, including creativity, than the reverse.

‘Apart from the enormous amount of fluff out there, the study of creativity is, quite unfortunately, still dominated by a number of rather dated ideas that are either so simplistic that nothing good can possibly come out of them or, given what we know about the brain, factually mistaken. As cognitive neuroscience is making more serious contact with the knowledge base of creativity, we must, from the outset, clear the ground of these pernicious fossil traces from a bygone era.’

(Dietrich 2007: 22)

‘Understanding creativity, particularly in human communication, is such a complex and vast undertaking that the current state of research in linguistics, cognitive science, psychology, anthropology and communication have barely begun to scratch the surface.’ (Bhatia & Ritchie 2008: 5)

We live in dynamic times. European integration is growing in complexity and a new global socio-economic order is emerging. Part of this growing reality is the rise of a new linguistic order, driven by the globally integrated nature of technological innovation and by human mobility. This has placed multilingualism in the spotlight. As Europe seeks to navigate these complex times and make constructive decisions, there is an urgent need to better understand to what extent **multilingualism constitutes one of the levers by which to enhance knowledge-based economies and societies.**

Creativity has led to various neuro-myths being circulated over recent years. Likewise, **multilingualism has been subjected to much myth-making.** For example, over some years in certain academic circles it was argued that bilingualism leads to negative consequences for individuals and societies, that it leads to diminished mental capacities. Today this is generally no longer believed to be the case.

Moreover, there may be forces which want to commercialise products and services, or otherwise argue cases which link creativity or multilingualism to some form of intrinsic gain. This pressure means that when we approach research which is contextually-specific, as is much of the work done in this area, we need to handle it with caution.

The world is changing very rapidly. Research on the relationship between **multilingualism and creativity may not yet have had its ‘Eureka’ moment**, but there is cause for cautious optimism, as the evidence described in this commentary reveals. In the European context there are widely held assumptions that there is a link between multilingualism and forms of added value such as creativity. These assumptions are reflected in European Commission output:

‘The ability to communicate in several languages is a great benefit for individuals, organisations and companies. It enhances creativity, breaks cultural stereotypes, encourages thinking "outside the box", and can help develop innovative products and services. These are all qualities and activities that have real economic value.

Language and creativity are mental faculties which form part of the natural skills of human beings. In business, multicultural and multilingual



teams are often created to solve problems, find innovative solutions and develop new goods and services. This approach is based on the idea that those who speak several languages have a broader perspective which can lead to fresh and innovative approaches. Multicultural teams can bring different perspectives to problems, leading to new solutions that foster creativity and innovation.'

(EC 2009)

We are now in a period when scientific insights on the working of languages in the brain are rapidly expanding.

'... the study of bilingualism, with its distinct approaches (from linguistics to neuroscience), has experienced an exceptional growth in the last decade. For example (research) reveals that in the 1986–1996 period 1,171 entries have listed the word "bilingual" as a topic, while in the period 1997–2007 that number was more than double: 2,716.' (Abutalebi & Costa, 2008: 473)

This is partly due to the fact that researchers can now look inside the brain using neuroimaging techniques such as functional magnetic resonance imaging (fMRI), positron emission topography (PET), and functional near-infrared spectroscopy (fNIRS). These, and other techniques, enable us to see the physical structure and activities in the brain on a scale not possible earlier. Biomedical research on the neurosciences only emerged as a distinct discipline after the 1970s.

We are now at a threshold stage where research conducted in rigorously controlled laboratory settings is at a crossroads with research conducted in largely non-laboratory contexts.

'The promise for the field of creativity is great; but so are the pitfalls. Luckily, the bits and pieces to establish an experimental, laboratory-based research program geared towards finding mechanistic explanations for creative mentation are already all around us. The advances in cognitive neuroscience in just the past two decades that are relevant to creativity have been breathtaking and they have brought unprecedented understanding and predictive power about how the mind works.'

(Dietrich 2007: 27)

Yet, currently available research still does not prove a solid, incontrovertible link between multilingualism and creativity, neither does it demonstrate any incontrovertible link between monolingualism and creativity.

However, there is an increasing body of evidence pertaining to a wide variety of people, in various cultural environments, and using different

languages, revealing enhanced functioning of individuals who use more than one language, when compared to monolinguals. This points to a **greater potential for creativity amongst those who know more than one language**, when compared with monolinguals.

### 3. Approaching the Evidence-base

The synthesis leading to this evidence-base has concentrated on scientific research that highlights the potential relationship between multilingual skills and creative processes. This research stems mainly from the cognitive sciences. No attempt has been made to address the links between multilingual skills and artistic creation since the scope and range of implications would be too vast.

The evidence available which supports the notion that multilingualism is linked to creativity is equivocal, although it is subject to multiple interpretations. However, by grouping together findings from different research disciplines over the last thirty years, it is possible to note the formation of evidence clusters.

These evidence clusters point towards specific forms of ‘difference’ between monolingualism and multilingualism. The clusters comprise research which argues that knowing more than one language results in people developing specific forms or conditions which could be linked to what is widely interpreted as ‘creativity’. The contents of these clusters constitute indicators.

The indicators have to be handled with extreme caution because **creativity is a multi-dimensional phenomenon**. This means that it is useful to look at the impact of knowing more than one language in relation to processes which might potentially lead to creativity. Multilingualism is only one factor which impacts on creativity.

When interpreting these clusters it is necessary to assume the following:

#### Research

- may involve different understanding of terms such as creativity. There is no consensual definition of this term. It may also focus on one single attribute which may or may not be one of the stepping stones which can lead to enhanced creativity.
- may involve very different types of multilingualism, from partial competence in a second language, through to high competence in three or more languages. The most common focus compares monolinguals with bilinguals, but here the understanding of ‘bilingualism’ may differ with respect to the level of competence in each of the two languages.

- focuses on individuals who have learnt a second or third language at different stages of their lives. This may involve using two languages in the family from a very early age, through to learning a language when an adolescent or adult. For instance there is controversy over the point at which multilingualism may have any recognisable impact.
- may be sensitive to which languages a person knows. Differences can be seen if these are from the same language family, like English and French, or from different families such as Dutch and Tamil.
- is always context-bound. This means that the individuals being studied may come from very different socio-economic or other circumstances. They may have had different experiences in life. Being left or right-handed; being bilingual with languages which have high or low social status in the given society; or being an infant or adult, are only a few of the variables which can influence the research results and how we interpret them. Experience is a key factor in research on multilingualism and creativity, and knowledge of a second or third language can be a profound experience in itself.

‘... the monolingual and bilingual groups exhibited significant differences in the corpus callosum midsagittal anterior midbody regional area... With respect to second language education, the results of this study could suggest that bilingual learning and use can have a profound affect on brain structures in general and the corpus callosum in particular’ (Coggins, P., Kennedy, T., Armstrong, T. 2004: 72-73)

- reporting may carry great significance at a given time, but then be considered flawed later on. Research is a cumulative process, in that one study invariably builds on those that have been conducted earlier. Research communities need to challenge assumptions and research outcomes, because this is an integral part of forwarding scientific understanding. In addition, research into language use has to handle environmental variables and this can be difficult even in highly controlled situations. This means that different methodological approaches, and outcomes, need to be viewed as complementary, to a greater or lesser extent, and acknowledged as deductions are drawn. The multilingual individual is a microcosm of the societies in which s/he lives. Therefore, research on multilinguals involves controlling what are sometimes termed ‘wild variables’ and means that enquiry into very specific attributes is as important as that which handles broader knowledge or skills.
- may report that x has an impact on y. This is very common in the current understanding of multilingualism and the human condition in the neurosciences. For example, knowing a second language is increasingly viewed as involving different neurocircuitry within the brain, when compared to monolingualism.

However, establishing a link between something different to something positive, or otherwise constructive, is usually not within the remit of the research analysed for the purposes of the separate research reports. This

is particularly true of early studies, and is typical of the stage we are now at in relation to the neurosciences and multilingualism. Incoming research is identifying change, but is often not yet in a position to determine what this means in terms of positive or other impact on the human condition and behaviour.

### The Flexible Mind



‘It is the bilinguals’ lens of understanding (which is comprised of their social and cognitive profile of prior experiences and is further guided by the social context in which they are engaged), not cognitive adeptness alone, that influences intrapsychological processes’

(Haritos 2004: 203)

‘It can be argued that speaking more languages brings cognitive benefits, which may be associated with increased use of the brain.

One of possible spin-off benefits is creativity.’ (Tokuhamma-Espinosa, 2008: 93)

The *flexible mind* is about extending the capacity to think. We can consider this in terms of the human body. A person who exercises and is physically fit is more able to adapt to different situations, like needing to swiftly walk up a steep hill. The ability to respond to different physical demands depends, partly, on physical flexibility. In a similar way, a flexible mind is one which can adapt itself to the demands of different situations. **A flexible mind is an adaptable mind.** Norman Doidge reiterates this point in that **‘The idea that the brain is like a muscle that grows with exercise is not just a metaphor’** (2008: 43).

‘We note that multilinguals have a more extensive range of affordances available to them than other language users and we argue that their experience as multilinguals provides them with especially favourable conditions to develop awareness of the social and cognitive possibilities which their situations afford them.’ (Singleton & Aronin 2007: 83)

It is not that monolinguals are denied a degree of flexibility reported as a characteristic of multilinguals. But the extent to which the multilingual mind is adaptable is of great interest. One of the long-standing analogies about bilinguals has centred on being able to **‘see the world through different lenses’**. Thus, as the multilingual engages with life, s/he has various types of binoculars which can be used as and when the need arises. The binoculars enable choice, and the choice is linked to the extent to which the mind is flexible in adapting to situations.

As we interact with our environment, a more extensive range of affordances or interpretations can lead to increased choices.

Being able to look at the same thing – for example, a problem or some other form of challenge, from different perspectives – is an important competence in the Information Age. Access to information, and the need to navigate this, has become a defining competence of the times. If the multilingual mind has the potential to support ‘looking at things from different perspectives’, then it may be that the multilingual mind can be regarded as **a mind well-equipped for modern times**.

‘the learner’s playful use of multiple linguistic codes may index resourceful, creative and pleasurable displays of multicompetence’ (Belz 2002: 59)

The main arguments found in the research examined revolve around the added value which results from knowledge of more than one language. For example, it is widely suggested that a bilingual is not a monolingual with two languages, because knowledge of different languages amounts to more than the sum of its parts. The bilingual is viewed as having *multicompetence*.

*Multicompetence* was originally used to describe the extra capacity which may emerge as a result of knowing more than one language. It is the compound state of a mind with two grammars. We can think of this in terms of the monolingual who has knowledge of his/her first language, together with, say, another cognitive framework such as mathematics; being able to solve problems through both constructs can be assumed to support flexibility of the mind. However, the multilingual, whether a

mathematician or not, will have these extra constructs because of knowledge of more than one language.

‘These subtle differences consistently suggest that people with multicompetence are not simply equivalent to two monolinguals but are a unique combination ...so the multicompetence state (L1 + L2) yields more than the sum of its parts, L1 and L2.

(Cook 1992: 557)

It is the uniqueness of this capacity which may lead to the potential for creativity. For example, there has long been an anecdotal view that ‘tension’ is often required to achieve creativity. ‘Creative tension’ is a popular concept in organisational management and it relates to how people perceive the gap between what they know/where they are, and what they want to know/where they want to be. **Creative tension is considered to be a form of energy.** It is often linked to iconic creative figures in history such as Michelangelo, Van Gogh, or Mozart, amongst others.

‘The gap between vision and current reality is a source of energy. If there was no gap, there would be no need for any action to move toward the vision. Indeed, the gap is the source of creative energy. We call this gap creative tension.’(Senge 2006 : 150)

‘At the heart of human creative endeavours lies the issue of thinking, which involves the deeper faculties of the mind.’ (Bhatia & Ritchie 2008: 5)

When looking across research on the multilingual mind there is much interest in how the two or more languages interact with each other within the brain in relation to a type of tension, and what this might mean for the individual in relation to thought.

Tension here should not be construed as negative. Creative tension has been compared to a bow and arrow. In itself the bow, the mind, is not able to project the arrow without appropriate tension suitable for that specific target. So if the target is some form of problem, the tension could be viewed as resulting from the interaction of the bow, string and the person him/herself. And it is this capacity for tension which links back to flexibility.

*Divergent* and *convergent thinking* are two frequently discussed thought processes in enquiries into the multilingual mind, creativity and problem-solving. Put simply, both are linked to **how we generate ideas**. There is much difference of opinion on the terms between researchers, and it is

possible that creativity could result from convergent just as from divergent thinking, or variants of each.

‘This finding indicates that being bilingual does not necessarily imply being creative, but rather that the positive effect of bilingualism on creative abilities is likely to be limited to unconscious automatic cognitive processing, which lays the foundation of more sophisticated processing during which truly creative ideas may be generated.’ (Kharkhurin 2008: 238)

‘Creativity derives from and depends upon implicit and explicit cognitive processes.’

(Smith 2008:525)

‘In both studies bilingual children were more successful than monolinguals in seeing the other meaning in the images...’

(Bialystok & Shapero 2005: 595)

One argument linking divergent thinking to multilingualism and creativity relates back to the idea of lenses. The ability to simultaneously activate and process multiple unrelated categories may be greater when more than one language is available for the process. What is of significance is if the potential flexibility being used in different ways for approaching thinking impacts on the potential for enhancing creativity.

Some researchers who look into multilingualism and cognitive flexibility use tests where the subjects are asked to look at a picture which has more than one image embedded into it, and describe what they see. The tests themselves tend to use very specific images, or other types of non-verbal perceptual tasks.

‘many theorize there is a correlation between mental flexibility and the number of structures one learns to work within – whether language rules or logical, mathematical constructs - meaning that the more languages you know the more flexible your mind is.’ (Tokuhamma-Espinosa, 2008: 93)

What is interesting is the degree to which the multilingual can possibly have an advantage over the monolingual in searching for structure, and seeing patterns when handling such perceptual tasks.

The modern age is one of widespread information and communication. Thinking processes and cognitive flexibility have been under the spotlight in various research fields for decades, but now there is great attention being given to **digital literacy and competences**. Being able to respond to

the opportunities and demands of information and communication technologies is an area of some interest. Cognitive flexibility has a role to play here, and there are now questions open with respect to the multilingual mind.

If multilingualism contributes to how the flexible mind engages with different input, re-organises and restructures thought to better understand how to adapt to different situations, then it may emerge as an asset in **competence-building for the Information Age**.

### The Problem-solving Mind



Language processing in the bilingual or multilingual mind will differ from the monolingual mind because there is more than one language to use at a given time. The existence of more than one language in the brain suggests that multilinguals have enhanced cognitive control when compared to monolinguals. This leads us to *executive function* which is a key concept in understanding cognitive control.

The multilingual mind operates with more than one language, and in so doing needs to rely on mechanisms which differ from the monolingual mind. This is because the monolingual mind has only one fundamental linguistic frame of reference. The question arises whether having a multilingual 'executive function' is a form of cognitive asset, which could enhance the potential for creativity. A range of reports argue that multilinguals, specifically bilinguals, have **executive function capacity which is superior** in various ways when compared to that of monolinguals.

'The executive functions are basic to all cognitive life. They control attention, determine planning and categorising, and inhibit inappropriate responding.... Speculatively, these executive functions are recruited by bilinguals to control attention to the two language systems in order to maintain fluent performance in one of them. The massive practice that is involved in that application leads to the hypothesis that these processes are bolstered for bilinguals, creating systems that are more durable, more efficient and more resilient. Thus, for bilinguals, control over the



executive functions develops earlier in childhood and declines later in older adulthood.’ (Bialystok 2007: 210)

Studies on or around executive function processing report on possible advantages of bilingualism in relation to aspects of problem-solving, including abstract thinking skills, creative hypothesis formulation, higher concept formation skills and overall higher mental flexibility. The reasons for any advantage may be linked to the management of two or more active language systems, and the experience of that management over time.

‘A possible reason for the enhanced cognitive control demonstrated by bilingual children is that the same control processes are used both to solve these misleading problems and to manage two active language systems. Bilingual children, therefore, have had more opportunity than monolinguals to exercise a crucial cognitive skill, and this practice may then accelerate the development of that skill.’ (Bialystok et al. 2005: 40)

Being able to interpret information and solve problems involves not only deciding what to give attention to, but also what not to give attention to. This is even more significant if one considers situations in which there is a large amount of information to process at a given time. Separating what is important information and what is not constitutes a problem-solving competence. Related research frequently refers to ‘inhibitory control’. Inhibitory control involves the scale at which a person is able to ignore distracting and irrelevant stimuli.

‘Bilinguals... have acquired a **better ability to maintain action goals** and to use them to bias goal-related information. Under some circumstances, this ability may indirectly lead to more pronounced reactive inhibition of irrelevant information.’ (Colzato et al. 2008: 302)

Attention to task is an important factor in not only problem-solving, but learning in general. It is said that **attention drives memory and learning**. The multilingual mind is already involved with separating the language processing frameworks resulting from knowing more than one language. This is especially the case in terms of ambiguity, and different representations created by words. However, it also separates distracting alternatives which might interfere with thought.

**Inhibitory control could lead to a significant advantage for the multilingual mind**, and could possibly link to creativity.

‘Because all the participants were highly practiced and efficient at performing this task, group differences emerged only when processing demands increased, setting limits on the performance of the monolinguals but not the bilinguals.’

(Bialystok 2006: 76)

Some studies have looked at problem-solving with respect to bilingual and monolingual behaviour when using multimedia gaming. This is a particularly interesting research area because it links closely to the development of digital literacy, to the types of competence required when using specific forms of information and communications technology. These studies reveal that bilinguals tend to be **better in problem-solving which is cognitively demanding**.

This interest in processing demands has led to suggestions that **the multilingual mind may be better at multitasking** than the monolingual mind. This is partly attributed to attention and inhibitory control. Multitasking can be considered as the simultaneous handling of more than one task and is directly linked to executive control.

Research reveals that when engaged in highly demanding problem-solving tasks bilingual students outperform monolinguals, but that this is not the case when each group handles relatively less demanding tasks. Sometimes, it is not that the bilinguals have a clear overall advantage, but that they may be better at handling the cognitive demands involved.

Some problem-solving tasks and processes include processes which could lead to creativity. Conceptual expansion is closely aligned to hypothesis formulation in problem-solving. This is sometimes discussed as 'fluid intelligence' which can be considered as a **higher order problem-solving capacity**. It is reported that knowing more than one language **may help the brain sharpen its ability to focus**.

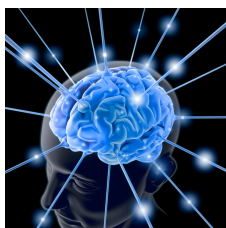
'The qualitatively high scientific hypotheses expressed by the language minority children using complex metaphoric language in their second language, English, indicate that linguistic and scientific creativity is enhanced by bilingual language proficiency.' (Kessler & Quinn 1987: 173)

*Problem-solving* is a constant feature of life. Whether people are answering academic questions in examinations, or considering which household appliance to purchase, problem-solving competences will be required. The indicators in this respect suggest that multilingualism may well provide a **multicompetence (the added value resulting from more than one language)** which could become an increasingly important competence for achieving creativity in the modern age.

'...in the more complex tasks used in this study, the ability to selectively attend to specific aspects of a representation is aiding the bilinguals. The distracting influences... confuse the monolinguals, whereas the bilinguals are more able to resist the distractions of the irrelevant information in

determining topological 'sameness' and are better able to encode the 'deep structure' of the images.' (McLeay 2003: 435)

### The Metalinguistic Mind



Awareness of language as a tool for thinking and human communication is a valuable skill. It leads to greater understanding of how language is used to achieve specific goals in life, and how to achieve deeper understanding of how language functions. Language awareness gives **the potential for enriched information processing**. Metalinguistic awareness is essentially about linguistic processing, leading to skills in analysing how language is used, and using language to achieve desired goals.

'(Linguistic processing is) the child's ability intentionally to consider the aspects of language relevant to the solution of a problem.'

(Bialystok 1986: 498)

'Bi- and multilinguals are "cognitively more flexible" and this is facilitated by their increased metalinguistic awareness.' (Kharkhurin, 2007: 182)

If the metalinguistic mind has more than one language, then this is viewed as giving advantage because the person is able to develop critical awareness of language and communication through more than one system. Understanding that words can have more than one meaning; identifying ambiguity in communication; translating words and interpreting concepts; and **seeing the sub-text underlying how language is used** are all given attention in research in this area.

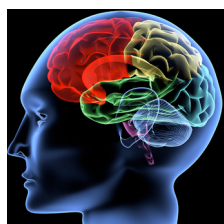
The metalinguistic mind enables the person to have specific types of ability to handle 'language dynamics' in communication. Essentially, it enables the person to 'go beyond the words', and is closely linked to improved reading skills through phonemic awareness (understanding sounds and symbols), and heightened sensitivity in interpersonal communication.

When the metalinguistic mind comes about through the interaction of two or more languages in the mind it can be seen as something which enriches each of them.

'More specifically, it seems that bi/plurilingual children, in favourable contexts, do not hesitate to use all language resources at their disposal, individually and collectively. They are more open to variation and they show greater flexibility in adapting to new linguistic systems. Such orientations seem to relate to greater awareness of language patterns, and a more efficient (strategic) use of the resources at hand to facilitate discovery, both at translinguistic and interlinguistic levels. These strategic skills could be constitutive of a plurilingual expertise.' (Moore 2006: 135)

Flexibility in adapting to and using different linguistic systems enables the taking of an existing concept and synthesizing it with and/or differentiating it from others, using this to fuel the emergence of new ideas. This is where the metalinguistic mind is associated with **achieving creative conceptual expansion**, and the potential for creativity.

### The Learning Mind



Modern cognitive theories assume that humans learn by interacting with their environment. This process which involves both the person's previous knowledge and the environmental stimuli is seen as a constructive process. During this interactive process new knowledge is constructed and learnt, and then integrated into the previous knowledge. The results of such knowledge constructions are always more than the sum of the environmental percepts; they are new concepts which cannot be foreseen. So learning is not adding information to information already stored, but constructing new knowledge. In a way every learning process can be seen as a creative process. In psychology and philosophy this is called the emergence phenomenon.

Using the 'working memory', the processes which enable temporary retention of information so as to enable the brain to 'think' are important for learning in general. Research (for example, Kormi-Nuori et al. 2008) suggests that the multilingual mind may have **superior memory functioning** in relation to 'episodic memory' and 'semantic memory' when compared to monolinguals.

*Episodic memory* is used to describe the memory of events linked to episodes (times, places, feelings, and other phenomenon which can be explicitly stated). *Semantic memory* describes more general knowledge which, though unrelated to specific experiences or events, is used to help interpret these.

The possibility of enhanced memory function has bearing through the impact of multilingualism on the learning of other subjects in the education curriculum, and on learning in general. The ability to retain, organise, store and retrieve information is an important human competence, and the indications that multilingualism provides an advantage in comparison to monolingualism have bearing on the potential for creativity. This relates to the possible impact of cross-language interactivity, a process which would not be available for a monolingual.

‘competence in two languages, and specifically heightened language awareness, serve as resources to build knowledge in context.’ (Moore 2006: 125)

‘In all four experiments, a positive effect of bilingualism was found on episodic and semantic memory tasks; the effect was more pronounced for older than younger children. The bilingual advantage was not affected by changing cognitive demands or by using first/second language in memory tasks. The present findings support the cross-language interactivity hypothesis of bilingual advantage.’ (Kormi-Nouri et al. 2008: 93)

This relates to what is called ‘cognitive load’, and links have been reported between multilingualism and **superior performance in hypothesis formation** in terms of depth and syntactic complexity. Such work has been done on various subjects, including maths and science.

‘Research on mathematical processing in native and second languages enables us to unfold the neurocircuitry of numerical and linguistic operations. The significance reaches beyond language and mathematics per se to advance our understanding of how multisensory brain systems cooperate functionally in cognitive processing.’ (Wang et al. 2007: 81)

‘...possible that bilingual learning can have a profound affect on brain structures.’

(Coggins, Kennedy & Armstrong 2004: 73)

There may be **specific neuro-circuitry and multisensory brain systems** (changes in brain organization, inter-hemispheric transfer, and functional plasticity) which enable change to be found in multilingual as opposed to

monolingual minds. This in turn may connect to the issue of whether knowing more than one language makes it easier to learn other languages; where language learning becomes a cumulative process.

The issue may simply hinge on the availability of more than one linguistic processing system for problem-solving when an individual has knowledge of more than one language:

‘Although some bilingual students do have a harder time, others seem to be at an advantage. This study explores the use that bilingual students who are succeeding in mathematics make of their two languages. These students seem to have better metalinguistics skills that allow them to self-correct when solving problems, and are perhaps more confident in their approach to solving difficult problems.’ (Clarkson 2007: 191)

It may also be linked to a possible advantage in reading skills, and handling relevant information when simultaneously reading, listening and looking.

‘Neurons that fire together wire together.’ (Shatz 1996)

Finally, even very limited exposure to second language learning is **now under the spotlight through research within the neurosciences**. Changes in the brain’s electrical activity may occur much earlier than previously thought. The neuronal structures are highly likely to influence change.

‘The results also support (the) suggestion that even low levels of ability in the second language are related to metalinguistic advantages.’

(Eviatar & Ibrahim 2000: 462)

It has been argued for some years that any impact from knowing a second language would only be realised when a certain degree of competence is attained. But it is now increasingly reported that change in the brain can be found with relatively little exposure to a second language. The consequences of this for both learning in general, or creativity, remain uncertain.

‘Preliminary results from three studies indicate that classroom-based L2 instruction can result in changes in the brain’s electrical activity, in the location of this activity within the brain, and in the structure of the learners’ brains. These changes can occur during the earliest stages of L2 acquisition.’ (Osterhout et al. 2008: 510)

That there may be a collateral relationship between multilingualism and learning in general has been under discussion in research for decades. Executive control, memory, divergent thinking, inhibitory control and metalinguistic awareness are all factors involved here, not to mention sociological and pedagogical constraints frequently referred to in the bilingual education literature.

‘Over two thousand years ago Plato declared ‘all learning has an emotional base’, but only recently has evidence started to accumulate to show that our emotions do re-sculpt our neural tissue.’ (CERI 2007: 64)

It is possible that the interplay between languages in the multilingual mind is a key factor. This interplay includes the role of emotions, which is increasingly viewed as an important aspect of learning. It is the interplay within the mind, and how that mind interacts with the surrounding environment, which puts the spotlight on the potential for creativity.

Interplay of languages can be found in educational settings where more than one medium of instruction is used (e.g. through Content and Language Integrated Learning – CLIL). Research on forms of bilingual education have reported surprisingly good results across the curriculum by bi- or multilinguals.

In Germany, Lamsfuss-Schenk (2008) and Zydatis (2009) report on research outcomes which argue that learners in bilingual classes show significantly better results not only in the target language but also in the other subjects. Similar recent reports can be found in Belgium (Braun 2007), Italy and Switzerland (Gajo & Serra 2002), and Spain (Sierra 2008). Baetens Beardsmore (2008) comments that ‘cognitive skills gradually being developed increase the potential for creative thinking, whether in the humanities or the sciences. The question then arises whether such skills are equally well developed in bilingual education models or better than in monolingual education’ (2008:12).

The majority of education systems have been built up on a monolingual frame of reference since the onset of compulsory schooling in the mid-nineteenth century. This led to assumptions about the negative consequences of bilingualism for individuals and societies whose education system was oriented towards mass numeracy and monolingual literacy as a means of generating creative prosperity. But globalisation and human mobility, European integration and non-linear career trajectories have thrown up new social challenges in education and in development which can no longer be addressed by the solutions

originally promoted at the onset of primarily monolingual compulsory schooling for all. The role of languages in the learning mind, and the learning environment, are a key factor in nurturing creative abilities within mainstream populations.

### The Interpersonal Mind



Parents who opt to have their children educated wholly or partly through the medium of a foreign language sometimes voice concern about whether such an experience may have a negative impact on the child's first language. There are reports and insights included in research reporting over the ages which imply that the experience of learning through the medium of a second language actually enhances the communication awareness of the first language. This could be linked to the types of language awareness and metalinguistic competence which can be developed when a person has more than one language.

'...bilingual children show an earlier understanding that other people can have false beliefs than monolingual children.' (Goetz 2003: 1)

Multilingualism is reported as helping to **nurture interpersonal communication awareness and skills**. For example the ability of multilinguals to see that people have differing, or even false, beliefs is said to develop earlier in multilinguals than in monolinguals.

Interpersonal competence is a notoriously difficult concept to measure, as there are multiple variables which interfere with both research practice and the outcomes reported. But the possibility that knowing more than one language provides specific opportunities for multilinguals is commonly reported across the range of the available literature.

'Bilinguals exhibited significant gains, with increased language experience, in communicative and conceptual linguistic competence, and metalinguistic competence. Results suggest that bilingual memory is not a dormant, cognitive state but a dynamic mosaic of reciprocal relations



between individual, cognitive, social, contextual, and behavioral factors.’  
(Haritos 2005: 77)

‘Possible explanations for this evidence of a bilingual advantage are greater inhibitory control, greater metalinguistic understanding, and a greater sensitivity to sociolinguistic interactions with interlocutors’ (Goetz 2003: 1)

‘Cognitive research associates bilingualism with heightened mental flexibility and creative thinking skills, enhanced metalinguistic awareness, and greater communicative sensitivity.’ (Lazaruk, 2007: 605)

The impact of multilingualism on interpersonal communication is referred to as understanding and responding to the communicative needs of others; contextual sensitivity; interactional competence in communication; and enhanced skills in differentiating languages in contextually sensitive ways. This suggests that multilingualism tends towards multi-skills in interpersonal interaction. If so, then this can have a bearing on the potential for creativity.

‘An overview of the studies carried out on the effects of bilingualism clearly shows that in contrast to monolingual children, bilingual children develop cognitive benefits such as communicative sensibility, creativity and metalinguistic awareness.’ (Jessner 1999: 202)

‘Our results support Jessner’s assumptions, which point to a highly developed interactional competence in third language learners, as we understand pragmatic production as part of the overall communicative competence.’ (Jordá 2005: 100)

By definition, interpersonal communication involves communicating with one or more people. There is much anecdotal opinion that cultural diversity leads to enhanced levels of creativity, but research on this question frequently deals with ethnicity or culture, and neglects to examine the impact of language.

There is little research done on the language dimension in relation to creativity and, for example, group performance and regional economic performance.

The idea of multilingualism resulting in innovative-generating interactions which enhance levels of creativity is an issue which is slowly being addressed from different perspectives. **Multilingualism is thus viewed as one human phenomenon which can have a positive impact on regional innovation and economic growth.**

'...innovations occur when individuals with high degrees of existing knowledge make novel and creative combinations of this knowledge with new insights observed or learned through spillovers.' (Stolarick & Florida, 2006: 1801)

'Having access to multiple languages and cultures also seems to have a positive impact on the region's talent itself. People 'think differently', we were often told, as a result of their bilingualism or multilingualism. A respondent from a consulting firm noted that when he is faced with difficult problems to solve, he intentionally forms strategy groups with multilingual staff. He observed that being multilingual means you understand the world from different perspectives and are more likely to devise creative and innovative solutions: it's 'good for the brain to have to learn how to work and think in [multiple languages]'. One problem-solves with 'more creativity when you have to approach problems from both cultures'. And a constructive 'synergistic tension' is created...' (Stolarick & Florida, 2006: 1812)

### The Ageing Mind



One possibly highly significant avenue of research which could very indirectly be linked to creativity relates to multilingualism and ageing. There is very little research reported to date, but the issue is considered significant enough to be included in this report, namely the **interface between multilingualism and age-related mental diminishment**.

'As scientists unlock more of the neurological secrets of the bilingual brain, they're learning that speaking more than one language may have cognitive benefits that extend from childhood into old age.' (Bilingual Brain: 2008)

The suggestion is that changes in the executive function and working memory resulting from knowledge of more than one language may slow down the rate of decline of certain cognitive processes as a person ages. Put simply, if the brain has more than one linguistic processing system, and is affected by organic or functional deterioration through normal ageing or even possibly forms of dementia, the rate of deterioration may be slowed down. Thus, rates of loss of cognitive function may be affected

by the greater capacity afforded by the different languages. This could be compared to a motor vehicle having an integrated protection circuit supported by more than one battery. The batteries not only reduce their capacity at different levels, but also serve to maintain function separately and jointly.

The implications of any offset of age-related diminishment of cognitive function and processes could be considerable. If incoming research further reveals that multilinguals have a 'cognitive reserve' which protects against these aspects of ageing, then the consequences for multilingualism and age may be considerable for not only individuals and families, but for societies. Any link to creativity is tenuous, but offset of age diminishment of cognition relates to the potential capacity for creative conceptual expansion in this particular set of age groups.

'According to Brookmeyer, Gray and Kawas (1998), a 2-year delay in onset of Alzheimer's disease (AD) would reduce the prevalence in the United States by 1.94 million after 50 years, and delays as short as 6 months could have substantial public health implications

Cognitive reserve is considered to provide a general protective function, possibly due to enhanced neural plasticity, compensatory use of alternative brain regions, or enriched brain vasculature.

'The speculative conclusion (following Fratiglioni et al., 2004; Scarmeas & Stern, 2003; Staff et al., 2004; Valenzuela & Sachdev, 2006a, 2006b) is that bilingualism does not affect the accumulation of pathological factors associated with dementia, but rather enables the brain to better tolerate the accumulated pathologies.' (Bialystok, Craik & Freedman 2007: 459, 460 & 463)

### **Postscript**

Like Antarctica, the fields of multilingualism and creativity are explored and claimed by many.

It is only in the last 200 years that the 'southern land' was established as a continent, and not just a collection of islands; and now, as we approach 2010, there is still lack of comprehensive understanding of how this continent influences the well-being of the planet, and what riches lie beneath its surface.

The same applies to languages, the brain, and human competencies. We are moving from multi-disciplinary modes of analysis towards convergence and integration. This is a time of consolidation and fusion,

where societies take stock of their existing resources and ways of functioning in order to better align themselves for the challenges and opportunities of the new age, the knowledge society.

We are at a period of history where innovation through creativity is viewed as a key driver for social and economic success. Innovation is an essential component of a healthy society. One potential source for fueling innovation is multilingualism.

A key word that is found throughout this commentary is 'potential'.

Knowledge of more than one language points to the realisation and expansion of certain types of potential. Multilingualism appears to help people to realise and expand their creative potential. Also thinking, learning, problem-solving and communicating, which are transversal, knowledge-steeped skills used in our daily lives, show signs of being enhanced through multilingualism. They enable a level or form of multi-skilling in multilinguals which may or may not be so readily accessible to monolinguals.

Thus, knowledge of more than one language could well open up forms of added value which go beyond the languages themselves and lead to 'multicompetence'. The implications are wide-ranging. If there are cognitive and behavioural benefits resulting from knowledge of more than one language, then there is a need to examine how this potential can be realised so as to maximise advantage.

Recognition of European multilingualism as a lever for economic growth and social cohesion, and not as an 'expensive inconvenient reality', is one issue. Communicating the value of languages and supporting their development through policy and education is another. Valuing the knowledge and use of different languages, regardless of contemporary status, is yet another. Understanding the multilingual dimension can lead to pragmatic actions which can be taken to nurture the potential that the knowledge of languages can bring to individuals and the societies in which they live and work.

The world has reached the cutting edge of science in relation to the impact of languages on the brain. Over the next ten years even greater understanding will be achieved, especially through the neurosciences, which will enable us to clarify our understanding of multilingualism and its relation to creativity and other factors. Yet, this is also a period where competence-building through lifelong learning is of acute significance because of the speed of change in our societies.

The major future challenges in the educational field are how to reform our learning systems to prepare our young people for 'jobs that do not exist yet, using technologies that have not been invented yet, in order to solve problems that haven't been identified yet'. (Jan Figel 2009).

The evidence clusters described here suggest that multilingualism is a resource which has the potential to play a key role in responding to the challenges of the present and future. It is one existing resource which is likely to nourish emergent processes of creativity that will help expand individual and societal opportunities

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**Chapter 4: Study on the Contribution of Multilingualism to  
Creativity: Scientific Inventory**

## SCIENTIFIC INVENTORY

# STUDY ON THE CONTRIBUTION OF MULTILINGUALISM TO CREATIVITY



## FINAL REPORT

CONTRACT N° EACEA/2007/3995/2

**The following hypotheses had to be verified on the basis of existing scientific research and literature with the inclusion of practical examples and empirical tests:**

### **HYPOTHESIS 01.**

There is a link between multilingualism and creativity.

### **HYPOTHESIS 02.**

Multilingualism broadens access to information.

### **HYPOTHESIS 03.**

Multilingualism offers alternative ways of organising thoughts.

### **HYPOTHESIS 04.**

Multilingualism offers alternative ways of perceiving the surrounding world.

**HYPOTHESIS 05.**

Learning a new language increases the potential for creative thought.

**01. THERE IS A LINK BETWEEN MULTILINGUALISM AND CREATIVITY**

Indicators	Context	Source	Quotations
Higher abilities in: verbal processing non-verbal perceptual tasks perceptual distinction searching for structure in perceptual tasks re-organising thoughts in response to feedback overall increased analytical orientation in using language	Pupils (5-8 yrs - bilingual and monolingual) in USA and Israel from families where parents had relatively 'high' educational attainment levels.	Ben-Zeev, S.: 1977, The influence of bilingualism on cognitive strategy and cognitive development, Child Development 48 (3), 1009-1018	
Enhanced semantic development: Thinking flexibly and abstractly (2-3 yrs advanced) - overall greater sensitivity to	Bilingual children (4-9 yrs) Afrikaans-English in comparative study using Semantic-Phonetic Preference Test examining semantic development and abstract thought.	Ianco-Worrall, A.: 1972, Child Development, 43, 1390-1400	

semantic relations between words			
Enhanced linguistic and creative hypothesis formulation through divergent and convergent thinking processes	School-aged pupils (11 yrs) compared (monolingual and Spanish-English bilingual minority in USA) on tasks involving the formulation and writing of scientific hypotheses.	Kessler, C. & Quinn, M.: 1987, Language minority children's linguistic and cognitive creativity, in G. MacEoin, A. Ahiqvist, and D. Haodha (eds.) Third International Conference on Minority Languages: General Papers, 173-187. Multilingual Matters, Clevedon	The qualitatively high scientific hypotheses expressed by the language minority children using complex metaphoric language in their second language, English, indicate that linguistic and scientific creativity is enhanced by bilingual language proficiency. (p. 173)
Enhanced creative thinking, abstract thinking and cognitive development. Ability to use more than two languages may lead to cumulative broadening of creative abilities through divergent thinking (Trilinguals out-perform both bilinguals and monolinguals)	150 secondary school students aged 11-18 years (mono-, bi- and trilingual) engaged in tests on creativity (B.K.Passi).	Srivastava, S.: 1991, Creativity and linguistic proficiency. <i>Psycho-Lingua</i> , 21(2): 105-109	
Superior performance in hypothesis formation when	Students (monolingual and bilingual, 6 grade) tested on hypothesis formation in terms of depth and	Kessler, C. and Quinn, M.: 1980, Positive effects of bilingualism on science problem-solving abilities, in	

studying science	syntactic complexity.	J. Alatis (ed.) Current Issues in Bilingual Education, 295-308, Georgetown University Press: Washington	
Higher scores on creativity measures implying divergent thinking skills	Study focuses on fifth- and sixth-grade Florida students (20 monolingual Americans, 16 Greek-Americans, 17 Spanish-Americans, and 18 Czech-Americans). Uses "Adapted Hoffman Bilingual Schedule" to assess the degree of participants' bilingualism. Two tests were administered to determine creativity--a "Word Meanings" test in which the children were asked to supply as many meanings as possible for each of 25 American words, and a "Uses" test in which they were asked to list ways of using common objects.	Jacobs, J., Pierce-Marnell, L.: 1966, Bilingualism and Creativity. Elementary English, 43, 499-503.	
(Highly proficient bilinguals) Significant advantages in: divergent thinking imagination perceptual organisation grammatical	Comparative groups of children (57: Italian-English bilingual and 55 English monolingual), pre-primary to grade 1, mean age 5.8 yrs.	Ricciardelli, L.: 1992, Bilingualism and cognitive development in relation to threshold theory, Journal of Psycholinguistic Research, 21, 4	

reading achievement			
Enhanced skills in divergent thinking and originality	85 students, 3rd grade bilingual French-English compared to monolingual control group (balanced, nonbalanced, monolingual) using verbal abilities, general reasoning, and verbal divergence	Cummins, J.: 1977, Cognitive factors associated with the attainment of intermediate levels of bilingual skills, Modern Language Journal, 61, 3-12.	In summary, as a synthesis of seemingly inconsistent research findings, it has been proposed that there may be a threshold level of bilingual competence which an individual must attain before his access to two languages can begin to positively influence his cognitive functioning. While an individual's competence in L2 and/or L1 remains below this threshold his interaction with the environment through these languages is unlikely to optimally promote his cognitive and academic progress (p.11)
Positive relationship between bilingualism and on	Acts as a review of 24 studies on creativity and bilingualism, 1965-1992, including primary research	Ricciardelli, L.: 1992, Creativity and bilingualism, Journal of Creative Behaviour, 26, 4, 242-254	The positive relationship between creativity and bilingualism can both influence and be influenced by creativity
Enhanced skills in divergent thinking such as fluency flexibility originality	1st, 4th and 6th grade students from 4 elementary schools tested using Torrance Tests of Creative Thinking examining verbal and figural flexibility and	Landry, R.,: 1974, A comparison of second language learners and monolinguals on divergent thinking tasks at the elementary school level. Modern Language Journal,	Thinking Abilities Second language learning at the elementary level (FLES) was considered to be a possible situation where an enriched and stimulating environment to promote creativity did exist.

	originality.	58, 1/2, 10-15.	Someone who was stimulated to switch from one linguistic context to another in his daily routine would be forced to maintain a certain adaptability and willingness to change. Such a situation would enable the student to develop possible neglected potentialities. Divergent thinking abilities, such as fluency, flexibility, and originality, were the potential behaviors involved in this study because they are characterized by adaptability and willingness to change (p.13)
Enhanced skills in originality and elaboration as creative functioning	1,063 3-5 grade children in Singapore, being educated in monolingual and bilingual schools, Chinese and Malay-speaking, tested with the Torrance Tests of Creative Thinking.	Torrance, E., Gowan, J., Wu, J.-J. & Aliotti, N.: 1970, Creative functioning of monolingual and bilingual children in Singapore. <i>Journal of Educational Psychology</i> , 61, 1, 72–75.	<p>Many observers have noted that the tension resulting from the competition of new and old associations facilitates originality of thinking and plays important roles in scientific and artistic breakthroughs. Thus, it was hypothesized that bilingualism would result in increased originality, especially if correction is made for fluency.</p> <p>Few clues were available, however, concerning the influence of competition of associations on ability to elaborate (p.73)</p> <p>The overall results</p>



			<p>show that the monolinguals excel the bilinguals on fluency and flexibility (<math>p &lt; .01</math>) but that the direction of the trend is reversed for originality and elaboration. The overall difference for elaboration is significant at about the .05 level but is not significant for originality.</p> <p>If corrections are made for number of responses, the trend toward the superiority of the bilinguals over the monolinguals on originality and elaboration becomes stronger (p.72)</p>
Code-switching is seen as an indicator of linguistic creativity	The author analyses youngsters of Turkish origin living in big cities in Germany. She shows that they develop new languages which are mixtures of Turkish and German. Although these languages cannot be called standardized languages, they clearly show aspects of linguistic creativity and are often used as instruments for communication with youngsters having another ethnic origin	Inci Dirim: Kreativität durch Code-Switching. Zeitschrift für Kulturaustausch 3, 2001	So ist es in einer Stadt wie Hamburg nicht schwer, Jugendliche aus rein deutschsprachigen Elternhäusern zu finden, die von klein auf bei Nachbarn und auf dem Spielplatz Türkisch gelernt haben und dieses Türkische ganz selbstverständlich in ihrem Alltag benutzen. Ebenso ist es leicht möglich, Migrantenkindern zu begegnen, die außerhalb von Schule und Elternhaus ihre Mehrsprachigkeit um Elemente weiterer Sprachen ihrer Freunde erweitert haben. Mischungen folgen bestimmten, unausgesprochenen Regeln. Es sind z.B. Transfers aus der einen Sprache in die andere

			oder das "Code-Switching" zu beobachten, ein ständiges Hin- und Herwechseln zwischen den Sprachen
Enhanced creative thinking abilities	24 Spanish-speaking monolinguals and 24 Spanish-English-speaking bilinguals (mean 15.2 yrs, bilinguals started learning English at mean 6.4 yrs) tested using Torrance Tests of Creative Thinking Abilities	Carringer, D. : 1974, Creative thinking of Mexican youth : The relationship of bilingualism, Journal of Cross-cultural Psychology, 5, 4, 492-504	...the individual who learns two languages develops a learning set for flexibility... The bilingual individual has to cope continually with the negative interference, and thus develops more cognitive flexibility in his efforts to overcome this interference..... bilingualism does promote creative thinking and at least in part serves to free the mind from the tyranny of words ... (p.502)
Enhanced problem-solving skills abstract thinking skills higher concept formation skills overall higher mental flexibility	Balanced bilingual children (110, 10 yrs, Canada) compared to monolinguals studies through cognitive perspective using IQ tests with bilingual children scoring higher on 15 out of 18 variables.	Peal, E and Lambert, W.: 1962, The relation of bilingualism to intelligence, Psychological Monographs 76, 27, 1-23	(the bilingual child is) a youngster whose wider experiences in two cultures have given him advantages which a monolingual does not enjoy (p.20)
Multilingualism as one factor which can have a positive impact on regional innovation and	Analysis of factors enabling creativity as a driving force in regional economic growth and prosperity. Case study through interview	Stolarick, K., Florida, R. : 2006, Creativity, connections and innovation: a study of linkages in the Montréal region, Environment and	innovations occur when individuals with high degrees of existing knowledge make novel and creative combinations of this knowledge with new insights

economic growth	questionnaire of the Montréal region examining human intellectual capital and creative-capital theory with multilingualism as one strand.	Planning A, 2006, 38, 1799-1817	<p>observed or learned through spillovers (p.1801)</p> <p>Having access to multiple languages and cultures also seems to have a positive impact on the region's talent itself. People 'think differently', we were often told, as a result of their bilingualism or multilingualism. A respondent from a consulting firm noted that when he is faced with difficult problems to solve, he intentionally forms strategy groups with multilingual staff. He observed that being multilingual means you understand the world from different perspectives and are more likely to devise creative and innovative solutions: it's 'good for the brain to have to learn how to work and think in [multiple languages]'. One problem solves with 'more creativity when you have to approach problems from both cultures'. And a constructive 'synergistic tension' is created by the presence of both English and French. These are all different explanations for what makes Montréal's cultural connectivity tick, (p.1812)</p>
Learners in bilingual classes show	The informants are 180 pupils from grammar	Zydatið, Woflagng: Deutsch-Englische Züge in	

<p>significantly better results not only in the target language but also in the other subjects.</p>	<p>schools in Berlin, 100 from so called bilingual classes, and 80 from classes in which content subjects were taught in the students' mother tongue. The research is longitudinal, i.e. over several years. Both groups were tested with respect to their competences in the target language and in the content subject.</p>	<p>Berlin (DEZIBEL): Eine Evaluation des bilingualen Sachfachunterrichts an Gymnasien, Frankfurt: Peter Lang 2009</p>	
<p>Advantages in divergent thinking (ability to simultaneously activate and process multiple unrelated categories)</p>	<p>c. 100 students (Russian L1, bilingual and those monolingual or with limited L2 language learning experience).</p>	<p>Kharkhurin, A.: 2008, The effect of linguistic proficiency, age of second language acquisition, and length of exposure to a new cultural environment on bilinguals' divergent thinking, <i>Bilingualism: Language and Cognition</i> 11,2,225-243, Cambridge University Press.</p>	<p>This finding indicates that being bilingual does not necessarily imply being creative, but rather that the positive effect of bilingualism on creative abilities is likely to be limited to unconscious automatic cognitive processing, which lays the foundation of more sophisticated processing during which truly creative ideas may be generated (p. 238)</p>

**02. MULTILINGUALISM BROADENS ACCESS TO INFORMATION.**

Indicators	Context	Source	Quotations
Higher abilities in: verbal processing non-verbal perceptual tasks perceptual distinction searching for structure in perceptual tasks re-organising thoughts in response to feedback overall increased analytical orientation in using language	Pupils (5-8 yrs - bilingual and monolingual) in USA and Israel from families where parents had relatively 'high' educational attainment levels.	Ben-Zeev, S.: 1977, The influence of bilingualism on cognitive strategy and cognitive development, <i>Child Development</i> 48 (3), 1009-1018	
Enhanced semantic development: Thinking flexibly and abstractly (2-3 yrs advanced) - overall greater sensitivity to semantic relations between words	Bilingual children (4-9 yrs) Afrikaans-English in comparative study using Semantic-Phonetic Preference Test examining semantic development and abstract thought.	Ianco-Worrall, A.: 1972, <i>Child Development</i> , 43, 1390-1400	

Enhanced linguistic and creative hypothesis formulation through divergent and convergent thinking processes	School-aged pupils (11 yrs) compared (monolingual and Spanish-English bilingual minority in USA) on tasks involving the formulation and writing of scientific hypotheses.	Kessler, C. & Quinn, M.: 1987, Language minority children's linguistic and cognitive creativity, in G. MacEoin, A. Ahiqvist, and D. Haodha (eds.) Third International Conference on Minority Languages: General Papers, 173-187. Multilingual Matters, Clevedon	The qualitatively high scientific hypotheses expressed by the language minority children using complex metaphoric language in their second language, English, indicate that linguistic and scientific creativity is enhanced by bilingual language proficiency. (p. 173)
Enhanced creative thinking, abstract thinking and cognitive development. Ability to use more than two languages may lead to cumulative broadening of creative abilities through divergent thinking (Trilinguals out-perform both bilinguals and monolinguals)	150 secondary school students aged 11-18 years (mono-, bi- and trilingual) engaged in tests on creativity (B.K.Passi).	Srivastava, S.: 1991, Creativity and linguistic proficiency. <i>Psycho-Lingua</i> , 21(2): 105-109	
Superior performance in hypothesis formation when studying science	Students (monolingual and bilingual, 6 grade) tested on hypothesis formation in terms of depth and syntactic complexity.	Kessler, C. and Quinn, M.: 1980, Positive effects of bilingualism on science problem-solving abilities, in J. Alatis (ed.) <i>Current Issues in Bilingual Education</i> , 295-308, Georgetown University	

		Press: Washington	
Higher scores on creativity measures implying divergent thinking skills	Study focuses on fifth- and sixth-grade Florida students (20 monolingual Americans, 16 Greek-Americans, 17 Spanish-Americans, and 18 Czech-Americans). Uses "Adapted Hoffman Bilingual Schedule" to assess the degree of participants' bilingualism. Two tests were administered to determine creativity--a "Word Meanings" test in which the children were asked to supply as many meanings as possible for each of 25 American words, and a "Uses" test in which they were asked to list ways of using common objects.	Jacobs, J., Pierce-Marnell, L.: 1966, Bilingualism and Creativity. Elementary English, 43, 499-503.	
(Highly proficient bilinguals) Significant advantages in: divergent thinking imagination perceptual organisation grammatical awareness reading achievement	Comparative groups of children (57: Italian-English bilingual and 55 English monolingual), pre-primary to grade 1, mean age 5.8 yrs.	Ricciardelli, L.: 1992, Bilingualism and cognitive development in relation to threshold theory, Journal of Psycholinguistic Research, 21, 4	

Enhanced skills in divergent thinking and originality	85 students, 3rd grade bilingual French-English compared to monolingual control group (balanced, nonbalanced, monolingual) using verbal abilities, general reasoning, and verbal divergence	Cummins, J.: 1977, Cognitive factors associated with the attainment of intermediate levels of bilingual skills, <i>Modern Language Journal</i> , 61, 3-12.	In summary, as a synthesis of seemingly inconsistent research findings, it has been proposed that there may be a threshold level of bilingual competence which an individual must attain before his access to two languages can begin to positively influence his cognitive functioning. While an individual's competence in L2 and/or L1 remains below this threshold his interaction with the environment through these languages is unlikely to optimally promote his cognitive and academic progress (p.11)
Positive relationship between bilingualism and on creativity	Acts as a review of 24 studies on creativity and bilingualism, 1965-1992, including primary research by the author.	Ricciardelli, L.: 1992, Creativity and bilingualism, <i>Journal of Creative Behaviour</i> , 26, 4, 242-254	The positive relationship between creativity and bilingualism can both influence and be influenced by creativity (p.251)
Enhanced skills in divergent thinking such as fluency flexibility originality	1st, 4th and 6th grade students from 4 elementary schools tested using Torrance Tests of Creative Thinking examining verbal and figural flexibility and originality.	Landry, R.: 1974, A comparison of second language learners and monolinguals on divergent thinking tasks at the elementary school level. <i>Modern Language Journal</i> , 58, 1/2, 10-15.	Thinking Abilities Second language learning at the elementary level (FLES) was considered to be a possible situation where an enriched and stimulating environment to promote creativity did exist. Someone who was stimulated to switch from one linguistic context to another in his daily



			<p>routine would be forced to maintain a certain adaptability and willingness to change. Such a situation would enable the student to develop possible neglected potentialities. Divergent thinking abilities, such as fluency, flexibility, and originality, were the potential behaviors involved in this study because they are characterized by adaptability and willingness to change (p.13)</p>
Enhanced skills in originality and elaboration as creative functioning	1,063 3-5 grade children in Singapore, being educated in monolingual and bilingual schools, Chinese and Malay-speaking, tested with the Torrance Tests of Creative Thinking.	Torrance, E., Gowan, J., Wu, J.-J. & Aliotti, N.: 1970, Creative functioning of monolingual and bilingual children in Singapore. <i>Journal of Educational Psychology</i> , 61, 1, 72–75.	<p>Many observers have noted that the tension resulting from the competition of new and old associations facilitates originality of thinking and plays important roles in scientific and artistic breakthroughs. Thus, it was hypothesized that bilingualism would result in increased originality, especially if correction is made for fluency.</p> <p>Few clues were available, however, concerning the influence of competition of associations on ability to elaborate (p.73)</p> <p>The overall results show that the monolinguals excel the bilinguals on fluency</p>

			<p>and flexibility (<math>p &lt; .01</math>) but that the direction of the trend is reversed for originality and elaboration. The overall difference for elaboration is significant at about the .05 level but is not significant for originality. If corrections are made for number of responses, the trend toward the superiority of the bilinguals over the monolinguals on originality and elaboration becomes stronger (p.72)</p>
Code-switching is seen as an indicator of linguistic creativity	The author analyses youngsters of Turkish origin living in big cities in Germany. She shows that they develop new languages which are mixtures of Turkish and German. Although these languages cannot be called standardized languages, they clearly show aspects of linguistic creativity and are often used as instruments for communication with youngsters having another ethnic origin	Inci Dirim: Kreativität durch Code-Switching. Zeitschrift für Kulturaustausch 3, 2001	So ist es in einer Stadt wie Hamburg nicht schwer, Jugendliche aus rein deutschsprachigen Elternhäusern zu finden, die von klein auf bei Nachbarn und auf dem Spielplatz Türkisch gelernt haben und dieses Türkische ganz selbstverständlich in ihrem Alltag benutzen. Ebenso ist es leicht möglich, Migrantenkindern zu begegnen, die außerhalb von Schule und Elternhaus ihre Mehrsprachigkeit um Elemente weiterer Sprachen ihrer Freunde erweitert haben. Mischungen folgen bestimmten, unausgesprochenen Regeln. Es sind z.B. Transfers aus der

			einen Sprache in die andere oder das "Code-Switching" zu beobachten, ein ständiges Hin- und Herwechseln zwischen den Sprachen
Enhanced creative thinking abilities	24 Spanish-speaking monolinguals and 24 Spanish-English-speaking bilinguals (mean 15.2 yrs, bilinguals started learning English at mean 6.4 yrs) tested using Torrance Tests of Creative Thinking Abilities	Carringer, D. : 1974, Creative thinking of Mexican youth : The relationship of bilingualism, Journal of Cross-cultural Psychology, 5, 4, 492-504	...the individual who learns two languages develops a learning set for flexibility... The bilingual individual has to cope continually with the negative interference, and thus develops more cognitive flexibility in his efforts to overcome this interference..... bilingualism does promote creative thinking and at least in part serves to free the mind from the tyranny of words ... (p.502)
Enhanced problem-solving skills abstract thinking skills higher concept formation skills overall higher mental flexibility	Balanced bilingual children (110, 10 yrs, Canada) compared to monolinguals studies through cognitive perspective using IQ tests with bilingual children scoring higher on 15 out of 18 variables.	Peal, E and Lambert, W.: 1962, The relation of bilingualism to intelligence, Psychological Monographs 76, 27, 1-23	(the bilingual child is) a youngster whose wider experiences in two cultures have given him advantages which a monolingual does not enjoy (p.20)
Multilingualism as one factor which can have a positive impact on regional innovation and	Analysis of factors enabling creativity as a driving force in regional economic growth and prosperity. Case study	Stolarick, K., Florida, R. : 2006, Creativity, connections and innovation: a study of linkages in the Montréal	innovations occur when individuals with high degrees of existing knowledge make novel and creative combinations of this

<p>economic growth</p>	<p>through interview questionnaire of the Montréal region examining human intellectual capital and creative-capital theory with multilingualism as one strand.</p>	<p>region, Environment and Planning A, 2006, 38, 1799-1817</p>	<p>knowledge with new insights observed or learned through spillovers (p.1801)</p> <p>Having access to multiple languages and cultures also seems to have a positive impact on the region's talent itself. People 'think differently', we were often told, as a result of their bilingualism or multilingualism. A respondent from a consulting firm noted that when he is faced with difficult problems to solve, he intentionally forms strategy groups with multilingual staff. He observed that being multilingual means you understand the world from different perspectives and are more likely to devise creative and innovative solutions: it's 'good for the brain to have to learn how to work and think in [multiple languages]'. One problem solves with 'more creativity when you have to approach problems from both cultures'. And a constructive 'synergistic tension' is created by the presence of both English and French. These are all different explanations for what makes Montréal's cultural connectivity tick, (p.1812)</p>

<p>Learners in bilingual classes show significantly better results not only in the target language but also in the other subjects.</p>	<p>The informants are 180 pupils from grammar schools in Berlin, 100 from so called bilingual classes, and 80 from classes in which content subjects were taught in the students' mother tongue. The research is longitudinal, i.e. over several years. Both groups were tested with respect to their competences in the target language and in the content subject.</p>	<p>Zydatiß, Woflagng: Deutsch-Englische Züge in Berlin (DEZIBEL): Eine Evaluation des bilingualen Sachfachunterrichts an Gymnasien, Frankfurt: Peter Lang 2009</p>	
<p>Advantages in divergent thinking (ability to simultaneously activate and process multiple unrelated categories)</p>	<p>c. 100 students (Russian L1, bilingual and those monolingual or with limited L2 language learning experience).</p>	<p>Kharkhurin, A.: 2008, The effect of linguistic proficiency, age of second language acquisition, and length of exposure to a new cultural environment on bilinguals' divergent thinking, <i>Bilingualism: Language and Cognition</i> 11,2,225-243, Cambridge University Press.</p>	<p>This finding indicates that being bilingual does not necessarily imply being creative, but rather that the positive effect of bilingualism on creative abilities is likely to be limited to unconscious automatic cognitive processing, which lays the foundation of more sophisticated processing during which truly creative ideas may be generated (p. 238)</p>

### 03. MULTILINGUALISM OFFERS ALTERNATIVE WAYS OF ORGANISING THOUGHTS.

Indicators	Context	Source	Quotations
Higher abilities in: verbal processing non-verbal perceptual tasks perceptual distinction searching for structure in perceptual tasks re-organising thoughts in response to feedback overall increased analytical orientation in using language	Pupils (5-8 yrs - bilingual and monolingual) in USA and Israel from families where parents had relatively 'high' educational attainment levels.	Ben-Zeev, S.: 1977, The influence of bilingualism on cognitive strategy and cognitive development, Child Development 48 (3), 1009-1018	
Enhanced semantic development: Thinking flexibly and abstractly (2-3 yrs advanced) - overall greater sensitivity to semantic relations between words	Bilingual children (4-9 yrs) Afrikaans-English in comparative study using Semantic-Phonetic Preference Test examining semantic development and abstract thought.	Ianco-Worrall, A.: 1972, Child Development, 43, 1390-1400	

<p>Enhanced linguistic and creative hypothesis formulation through divergent and convergent thinking processes</p>	<p>School-aged pupils (11 yrs) compared (monolingual and Spanish-English bilingual minority in USA) on tasks involving the formulation and writing of scientific hypotheses.</p>	<p>Kessler, C. &amp; Quinn, M.: 1987, Language minority children's linguistic and cognitive creativity, in G. MacEoin, A. Ahiqvist, and D. Haodha (eds.) Third International Conference on Minority Languages: General Papers, 173-187. Multilingual Matters, Clevedon</p>	<p>The qualitatively high scientific hypotheses expressed by the language minority children using complex metaphoric language in their second language, English, indicate that linguistic and scientific creativity is enhanced by bilingual language proficiency. (p. 173)</p>
<p>Enhanced creative thinking, abstract thinking and cognitive development. Ability to use more than two languages may lead to cumulative broadening of creative abilities through divergent thinking (Trilinguals out-perform both bilinguals and monolinguals)</p>	<p>150 secondary school students aged 11-18 years (mono-, bi- and trilingual) engaged in tests on creativity (B.K.Passi).</p>	<p>Srivastava, S.: 1991, Creativity and linguistic proficiency. <i>Psycho-Lingua</i>, 21(2): 105-109</p>	
<p>Superior performance in hypothesis formation when studying science</p>	<p>Students (monolingual and bilingual, 6 grade) tested on hypothesis formation in terms of depth and syntactic complexity.</p>	<p>Kessler, C. and Quinn, M.: 1980, Positive effects of bilingualism on science problem-solving abilities, in J. Alatis (ed.) <i>Current Issues in Bilingual Education</i>, 295-308, Georgetown University Press: Washington</p>	

Higher scores on creativity measures implying divergent thinking skills	Study focuses on fifth- and sixth-grade Florida students (20 monolingual Americans, 16 Greek-Americans, 17 Spanish-Americans, and 18 Czech-Americans). Uses "Adapted Hoffman Bilingual Schedule" to assess the degree of participants' bilingualism. Two tests were administered to determine creativity--a "Word Meanings" test in which the children were asked to supply as many meanings as possible for each of 25 American words, and a "Uses" test in which they were asked to list ways of using common objects.	Jacobs, J., Pierce-Marnell, L.: 1966, Bilingualism and Creativity. Elementary English, 43, 499-503.
(Highly proficient bilinguals) Significant advantages in: divergent thinking imagination perceptual organisation grammatical awareness reading achievement	Comparative groups of children (57: Italian-English bilingual and 55 English monolingual), pre-primary to grade 1, mean age 5.8 yrs.	Ricciardelli, L.: 1992, Bilingualism and cognitive development in relation to threshold theory, Journal of Psycholinguistic Research, 21, 4



Enhanced skills in divergent thinking and originality	85 students, 3rd grade bilingual French-English compared to monolingual control group (balanced, nonbalanced, monolingual) using verbal abilities, general reasoning, and verbal divergence	Cummins, J.: 1977, Cognitive factors associated with the attainment of intermediate levels of bilingual skills, <i>Modern Language Journal</i> , 61, 3-12.	In summary, as a synthesis of seemingly inconsistent research findings, it has been proposed that there may be a threshold level of bilingual competence which an individual must attain before his access to two languages can begin to positively influence his cognitive functioning. While an individual's competence in L2 and/or L1 remains below this threshold his interaction with the environment through these languages is unlikely to optimally promote his cognitive and academic progress (p.11)
Positive relationship between bilingualism and on creativity	Acts as a review of 24 studies on creativity and bilingualism, 1965-1992, including primary research by the author.	Ricciardelli, L.: 1992, Creativity and bilingualism, <i>Journal of Creative Behaviour</i> , 26, 4, 242-254	The positive relationship between creativity and bilingualism can both influence and be influenced by creativity (p.251)
Enhanced skills in divergent thinking such as fluency flexibility originality	1st, 4th and 6th grade students from 4 elementary schools tested using Torrance Tests of Creative Thinking examining verbal and figural flexibility and originality.	Landry, R.,: 1974, A comparison of second language learners and monolinguals on divergent thinking tasks at the elementary school level. <i>Modern Language Journal</i> , 58, 1/2, 10-15.	Thinking Abilities Second language learning at the elementary level (FLES) was considered to be a possible situation where an enriched and stimulating environment to promote creativity did exist. Someone who was stimulated to switch from one linguistic context to another in his daily routine would be forced to maintain a certain adaptability

			and willingness to change. Such a situation would enable the student to develop possible neglected potentialities. Divergent thinking abilities, such as fluency, flexibility, and originality, were the potential behaviors involved in this study because they are characterized by adaptability and willingness to change (p.13)
Enhanced skills in originality and elaboration as creative functioning	1,063 3-5 grade children in Singapore, being educated in monolingual and bilingual schools, Chinese and Malay-speaking, tested with the Torrance Tests of Creative Thinking.	Torrance, E., Gowan, J., Wu, J.-J. & Aliotti, N.: 1970, Creative functioning of monolingual and bilingual children in Singapore. <i>Journal of Educational Psychology</i> , 61, 1, 72–75.	<p>Many observers have noted that the tension resulting from the competition of new and old associations facilitates originality of thinking and plays important roles in scientific and artistic breakthroughs. Thus, it was hypothesized that bilingualism would result in increased originality, especially if correction is made for fluency.</p> <p>Few clues were available, however, concerning the influence of competition of associations on ability to elaborate (p.73)</p> <p>The overall results show that the monolinguals excel the bilinguals on fluency and flexibility (<math>p &lt; .01</math>) but that the</p>

			<p>direction of the trend is reversed for originality and elaboration. The overall difference for elaboration is significant at about the .05 level but is not significant for originality. If corrections are made for number of responses, the trend toward the superiority of the bilinguals over the monolinguals on originality and elaboration becomes stronger (p.72)</p>
Code-switching is seen as an indicator of linguistic creativity	The author analyses youngsters of Turkish origin living in big cities in Germany. She shows that they develop new languages which are mixtures of Turkish and German. Although these languages cannot be called standardized languages, they clearly show aspects of linguistic creativity and are often used as instruments for communication with youngsters having another ethnic origin	Inci Dirim: Kreativität durch Code-Switching. Zeitschrift für Kulturaustausch 3, 2001	So ist es in einer Stadt wie Hamburg nicht schwer, Jugendliche aus rein deutschsprachigen Elternhäusern zu finden, die von klein auf bei Nachbarn und auf dem Spielplatz Türkisch gelernt haben und dieses Türkische ganz selbstverständlich in ihrem Alltag benutzen. Ebenso ist es leicht möglich, Migrantenkindern zu begegnen, die außerhalb von Schule und Elternhaus ihre Mehrsprachigkeit um Elemente weiterer Sprachen ihrer Freunde erweitert haben. Mischungen folgen bestimmten, unausgesprochenen Regeln. Es sind z.B. Transfers aus der einen Sprache in die andere oder das "Code-Switching" zu

			beobachten, ein ständiges Hin- und Herwechseln zwischen den Sprachen
Enhanced creative thinking abilities	24 Spanish-speaking monolinguals and 24 Spanish-English-speaking bilinguals (mean 15.2 yrs, bilinguals started learning English at mean 6.4 yrs) tested using Torrance Tests of Creative Thinking Abilities	Carringer, D. : 1974, Creative thinking of Mexican youth : The relationship of bilingualism, Journal of Cross-cultural Psychology, 5, 4, 492-504	...the individual who learns two languages develops a learning set for flexibility... The bilingual individual has to cope continually with the negative interference, and thus develops more cognitive flexibility in his efforts to overcome this interference..... bilingualism does promote creative thinking and at least in part serves to free the mind from the tyranny of words ... (p.502)
Enhanced problem-solving skills abstract thinking skills higher concept formation skills overall higher mental flexibility	Balanced bilingual children (110, 10 yrs, Canada) compared to monolinguals studies through cognitive perspective using IQ tests with bilingual children scoring higher on 15 out of 18 variables.	Peal, E and Lambert, W.: 1962, The relation of bilingualism to intelligence, Psychological Monographs 76, 27, 1-23	(the bilingual child is) a youngster whose wider experiences in two cultures have given him advantages which a monolingual does not enjoy (p.20)
Multilingualism as one factor which can have a positive impact on regional innovation and economic growth	Analysis of factors enabling creativity as a driving force in regional economic growth and prosperity. Case study through interview questionnaire of the	Stolarick, K., Florida, R. : 2006, Creativity, connections and innovation: a study of linkages in the Montréal region, Environment and Planning A, 2006, 38, 1799-	innovations occur when individuals with high degrees of existing knowledge make novel and creative combinations of this knowledge with new insights observed or learned through

	<p>Montréal region examining human intellectual capital and creative-capital theory with multilingualism as one strand.</p>	1817	<p>spillovers (p.1801)</p> <p>Having access to multiple languages and cultures also seems to have a positive impact on the region's talent itself. People 'think differently', we were often told, as a result of their bilingualism or multilingualism. A respondent from a consulting firm noted that when he is faced with difficult problems to solve, he intentionally forms strategy groups with multilingual staff. He observed that being multilingual means you understand the world from different perspectives and are more likely to devise creative and innovative solutions: it's 'good for the brain to have to learn how to work and think in [multiple languages]'. One problem solves with 'more creativity when you have to approach problems from both cultures'. And a constructive 'synergistic tension' is created by the presence of both English and French. These are all different explanations for what makes Montréal's cultural connectivity tick, (p.1812)</p>
<p>Learners in bilingual classes show significantly better</p>	<p>The informants are 180 pupils from grammar schools in Berlin, 100 from</p>	<p>Zydatiß, Woflagng: Deutsch-Englische Züge in Berlin (DEZIBEL): Eine</p>	

<p>results not only in the target language but also in the other subjects.</p>	<p>so called bilingual classes, and 80 from classes in which content subjects were taught in the students' mother tongue. The research is longitudinal, i.e. over several years. Both groups were tested with respect to their competences in the target language and in the content subject.</p>	<p>Evaluation des bilingualen Sachfachunterrichts an Gymnasien, Frankfurt: Peter Lang 2009</p>	
<p>Advantages in divergent thinking (ability to simultaneously activate and process multiple unrelated categories)</p>	<p>c. 100 students (Russian L1, bilingual and those monolingual or with limited L2 language learning experience).</p>	<p>Kharkhurin, A.: 2008, The effect of linguistic proficiency, age of second language acquisition, and length of exposure to a new cultural environment on bilinguals' divergent thinking, <i>Bilingualism: Language and Cognition</i> 11,2,225-243, Cambridge University Press.</p>	<p>This finding indicates that being bilingual does not necessarily imply being creative, but rather that the positive effect of bilingualism on creative abilities is likely to be limited to unconscious automatic cognitive processing, which lays the foundation of more sophisticated processing during which truly creative ideas may be generated (p. 238)</p>

#### 04. MULTILINGUALISM OFFERS ALTERNATIVE WAYS OF PERCEIVING

#### THE SURROUNDING WORLD.

Indicators	Context	Source	Quotations
Higher abilities in: verbal processing non-verbal perceptual tasks perceptual distinction searching for structure in perceptual tasks re-organising thoughts in response to feedback	Pupils (5-8 yrs - bilingual and monolingual) in USA and Israel from families where parents had relatively 'high' educational attainment levels.	Ben-Zeev, S.: 1977, The influence of bilingualism on cognitive strategy and cognitive development, Child Development 48 (3), 1009-1018	
analytical orientation in using language			
Enhanced semantic development: Thinking flexibly and abstractly (2-3 yrs advanced) - overall greater sensitivity to	Bilingual children (4-9 yrs) Afrikaans-English in comparative study using Semantic-Phonetic Preference Test examining semantic development and abstract thought.	Ianco-Worrall, A.: 1972, Child Development, 43, 1390-1400	

semantic relations between words			
Enhanced linguistic and creative hypothesis formulation through divergent and convergent thinking processes	School-aged pupils (11 yrs) compared (monolingual and Spanish-English bilingual minority in USA) on tasks involving the formulation and writing of scientific hypotheses.	Kessler, C. & Quinn, M.: 1987, Language minority children's linguistic and cognitive creativity, in G. MacEoin, A. Ahiqvist, and D. Haodha (eds.) Third International Conference on Minority Languages: <i>Journal of Multilingual Matters</i> , Clevedon	The qualitatively high scientific hypotheses expressed by the language minority children using complex metaphoric language in their second language, English, indicate that linguistic and scientific creativity is enhanced by
			(p. 175)
Enhanced creative thinking, abstract thinking and cognitive development. Ability to use more than two languages may lead to cumulative broadening of creative abilities through divergent thinking (Trilinguals out-perform both bilinguals and monolinguals)	150 secondary school students aged 11-18 years (mono-, bi- and trilingual) engaged in tests on creativity (B.K.Passi).	Srivastava, S.: 1991, Creativity and linguistic proficiency. <i>Psycho-Lingua</i> , 21(2): 105-109	
Superior performance in hypothesis formation when	Students (monolingual and bilingual, 6 grade) tested on hypothesis formation in terms of depth and	Kessler, C. and Quinn, M.: 1980, Positive effects of bilingualism on science problem-solving abilities, in	



studying science	syntactic complexity.	J. Alatis (ed.) Current Issues in Bilingual Education, 295-308, Georgetown University Press: Washington	
Higher scores on creativity measures implying divergent thinking skills	Study focuses on fifth- and sixth-grade Florida students (20 monolingual Americans, 16 Greek-Americans, 17 Spanish-Americans, and 18 Czech-Americans). Uses "Adapted Hoffman Bilingual Schedule" to assess the degree of participants' bilingualism. Two tests were administered to determine creativity--a "Word Meanings" test in which the children were asked to supply as many meanings as possible for each of 25 American words, and a "Uses" test in which they were asked to list ways of using common objects.	Jacobs, J., Pierce-Marnell, L.: 1966, Bilingualism and Creativity. Elementary English, 43, 499-503.	
(Highly proficient bilinguals) Significant advantages in: divergent thinking imagination perceptual organisation grammatical awareness	Comparative groups of children (57: Italian-English bilingual and 55 English monolingual), pre-primary to grade 1, mean age 5.8 yrs.	Ricciardelli, L.: 1992, Bilingualism and cognitive development in relation to threshold theory, Journal of Psycholinguistic Research, 21, 4	

reading achievement			
Enhanced skills in divergent thinking and originality	85 students, 3rd grade bilingual French-English compared to monolingual control group (balanced, nonbalanced, monolingual) using verbal abilities, general reasoning, and verbal divergence	Cummins, J.: 1977, Cognitive factors associated with the attainment of intermediate levels of bilingual skills, Modern Language Journal, 61, 3-12.	In summary, as a synthesis of seemingly inconsistent research findings, it has been proposed that there may be a threshold level of bilingual competence which an individual must attain before his access to two languages can begin to positively influence his cognitive functioning. While an individual's competence in L2 and/or L1 remains below this threshold his interaction
			these languages is unlikely to optimally promote his cognitive and academic progress (p.11)
Positive relationship between bilingualism and on creativity	Acts as a review of 24 studies on creativity and bilingualism, 1965-1992, including primary research by the author.	Ricciardelli, L.: 1992, Creativity and bilingualism, Journal of Creative Behaviour, 26, 4, 242-254	The positive relationship between creativity and bilingualism can both influence and be influenced by creativity (p.251)
Enhanced skills in divergent thinking such as fluency flexibility originality	1st, 4th and 6th grade students from 4 elementary schools tested using Torrance Tests of Creative Thinking examining verbal and figural flexibility and	Landry, R.,: 1974, A comparison of second language learners and monolinguals on divergent thinking tasks at the elementary school level. Modern Language Journal,	Thinking Abilities Second language learning at the elementary level (FLES) was considered to be a possible situation where an enriched and stimulating environment to promote creativity did exist.

	originality.	58, 1/2, 10-15.	Someone who was stimulated to switch from one linguistic context to another in his daily routine would be forced to maintain a certain adaptability and willingness to change. Such a situation would enable the student to develop possible neglected potentialities. Divergent thinking abilities, such as fluency, flexibility, and originality, were the potential behaviors involved in this study because they are characterized by adaptability and willingness to change (p.13)
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			<p>The overall results show that the monolinguals excel the bilinguals on fluency and flexibility (<math>p &lt; .01</math>) but that the direction of the trend is reversed for originality and elaboration. The overall difference for elaboration is significant at about the .05 level but is not significant for originality. If corrections are made for number of responses, the trend toward the superiority of the bilinguals over the monolinguals on originality and elaboration becomes stronger (p.72)</p>
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			bestimmten, unausgesprochenen Regeln. Es sind z.B. Transfers aus der einen Sprache in die andere oder das "Code-Switching" zu beobachten, ein ständiges Hin- und Herwechseln zwischen den Sprachen
Enhanced creative thinking abilities	24 Spanish-speaking monolinguals and 24 Spanish-English-speaking bilinguals (mean 15.2 yrs, bilinguals started learning English at mean 6.4 yrs) tested using Torrance Tests of Creative Thinking Abilities	Carringer, D. : 1974, Creative thinking of Mexican youth : The relationship of bilingualism, Journal of Cross-cultural Psychology, 5, 4, 492-504	...the individual who learns two languages develops a learning set for flexibility... The bilingual individual has to cope continually with the negative interference, and thus develops more cognitive flexibility in his efforts to overcome this interference..... bilingualism does promote creative thinking and at least in part serves to free the mind from the tyranny of words ... (p.502)
Enhanced problem-solving skills abstract thinking skills higher concept formation skills	Balanced bilingual children (110, 10 yrs, Canada) compared to monolinguals studies through cognitive perspective usng IQ tests with bilingual children scoring higher on 15 out of	Peal, E and Lambert, W.: 1962, The relation of bilingualism to intelligence, Psychological Monographs 76, 27, 1-23	(the bilingual child is) a youngster whose wider experiences in two cultures have given him advantages which a monolingual does not enjoy (p.20)
mental flexibility			
Multilingualism as one factor which	Analysis of factors enabling creativity as a	Stolarick, K., Florida, R. : 2006, Creativity,	innovations occur when individuals with high degrees

<p>can have a positive impact on regional innovation and economic growth</p>	<p>driving force in regional economic growth and prosperity. Case study through interview questionnaire of the Montréal region examining human intellectual capital and creative-capital theory with multilingualism as one strand.</p>	<p>connections and innovation: a study of linkages in the Montréal region, Environment and Planning A, 2006, 38, 1799-1817</p>	<p>of existing knowledge make novel and creative combinations of this knowledge with new insights observed or learned through spillovers (p.1801)</p> <p>Having access to multiple languages and cultures also seems to have a positive impact on the region's talent itself. People 'think differently', we were often told, as a result of their bilingualism or multilingualism. A respondent from a consulting firm noted that when he is faced with difficult problems to solve, he intentionally forms strategy groups with multilingual staff. He observed that being multilingual means you understand the world from different perspectives and are more likely to devise creative and innovative solutions: it's 'good for the brain to have to learn how to work and think in [multiple languages]'. One problem solves with 'more creativity when you have to approach problems from both cultures'. And a constructive 'synergistic tension' is created by the presence of both English and French. These are all different explanations for what makes Montréal's cultural connectivity tick, (p.1812)</p>
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Learners in bilingual classes show significantly better results not only in the target language but also in the other subjects.	The informants are 180 pupils from grammar schools in Berlin, 100 from so called bilingual classes, and 80 from classes in which content subjects were taught in the students' mother tongue. The research is longitudinal, i.e. over several years. Both groups were tested with respect to their competences in the target language and in the content subject.	Zydati, Woflagng: Deutsch-Englische Zge in Berlin (DEZIBEL): Eine Evaluation des bilingualen Sachfachunterrichts an Gymnasien, Frankfurt: Peter Lang 2009	
Advantages in divergent thinking (ability to simultaneously activate and process multiple unrelated categories)	c. 100 students (Russian L1, bilingual and those monolingual or with limited L2 language learning experience).	Kharkhurin, A.: 2008, The effect of linguistic proficiency, age of second language acquisition, and length of exposure to a new cultural environment on bilinguals' divergent thinking, <i>Bilingualism: Language and Cognition</i> 11,2,225-243, Cambridge University Press.	This finding indicates that being bilingual does not necessarily imply being creative, but rather that the positive effect of bilingualism on creative abilities is likely to be limited to unconscious automatic cognitive processing, which lays the foundation of more sophisticated processing during which truly creative ideas may be generated (p. 238)

## 05. LEARNING A NEW LANGUAGE INCREASES THE POTENTIAL FOR CREATIVE THOUGHT.

Indicators	Context	Source	Quotations

Higher abilities in: verbal processing non-verbal perceptual tasks perceptual distinction searching for structure in perceptual tasks re-organising thoughts in response to feedback	Pupils (5-8 yrs - bilingual and monolingual) in USA and Israel from families where parents had relatively 'high' educational attainment levels.	Ben-Zeev, S.: 1977, The influence of bilingualism on cognitive strategy and cognitive development, <i>Child Development</i> 48 (3), 1009-1018	
analytical orientation in using language			
Enhanced semantic development: Thinking flexibly and abstractly (2-3 yrs advanced) - overall greater sensitivity to semantic relations between words	Bilingual children (4-9 yrs) Afrikaans-English in comparative study using Semantic-Phonetic Preference Test examining semantic development and abstract thought.	Ianco-Worrall, A.: 1972, <i>Child Development</i> , 43, 1390-1400	
Enhanced linguistic and creative hypothesis formulation through divergent and convergent thinking processes	School-aged pupils (11 yrs) compared (monolingual and Spanish-English bilingual minority in USA) on tasks involving the formulation and writing of scientific hypotheses.	Kessler, C. & Quinn, M.: 1987, Language minority children's linguistic and cognitive creativity, in G. MacEoin, A. Ahqvist, and D. Haodha (eds.) <i>Third International Conference on Minority Languages:</i>	The qualitatively high scientific hypotheses expressed by the language minority children using complex metaphoric language in their second language, English, indicate that linguistic and scientific creativity is enhanced by



		General Papers, 173-187. Multilingual Matters, Clevedon	bilingual language proficiency. (p. 173)
Enhanced creative thinking, abstract thinking and cognitive development. Ability to use more than two languages may lead to cumulative broadening of creative abilities through divergent thinking (Trilinguals out-perform both bilinguals and monolinguals)	150 secondary school students aged 11-18 years (mono-, bi- and trilingual) engaged in tests on creativity (B.K.Passi).	Srivastava, S.: 1991, Creativity and linguistic proficiency. <i>Psycho-Lingua</i> , 21(2): 105-109	
Superior performance in hypothesis formation when studying science	Students (monolingual and bilingual, 6 grade) tested on hypothesis formation in terms of depth and syntactic complexity.	Kessler, C. and Quinn, M.: 1980, Positive effects of bilingualism on science problem-solving abilities, in J. Alatis (ed.) <i>Current Issues in Bilingual Education</i> , 295-308, Georgetown University Press: Washington	
Higher scores on creativity measures implying divergent thinking skills	Study focuses on fifth- and sixth-grade Florida students (20 monolingual Americans, 16 Greek-Americans, 17 Spanish-Americans, and 18 Czech-	Jacobs, J., Pierce-Marnell, L.: 1966, <i>Bilingualism and Creativity</i> . <i>Elementary English</i> , 43, 499-503.	

	Americans). Uses "Adapted Hoffman Bilingual Schedule" to assess the degree of participants' bilingualism. Two tests were administered to determine creativity--a "Word Meanings" test in which the children were asked to supply as many meanings as possible for each of 25 American words, and a "Uses" test in which they were asked to list ways of using common objects.		
(Highly proficient bilinguals) Significant advantages in: divergent thinking imagination perceptual organisation grammatical awareness reading achievement	Comparative groups of children (57: Italian-English bilingual and 55 English monolingual), pre-primary to grade 1, mean age 5.8 yrs.	Ricciardelli, L.: 1992, Bilingualism and cognitive development in relation to threshold theory, Journal of Psycholinguistic Research, 21, 4	
Enhanced skills in divergent thinking and originality	85 students, 3rd grade bilingual French-English compared to monolingual control group (balanced, nonbalanced, monolingual) using verbal abilities, general reasoning, and verbal	Cummins, J.: 1977, Cognitive factors associated with the attainment of intermediate levels of bilingual skills, Modern Language Journal, 61, 3-12.	In summary, as a synthesis of seemingly inconsistent research findings, it has been proposed that there may be a threshold level of bilingual competence which an individual must attain before his access to two languages

	divergence		can begin to positively influence his cognitive functioning. While an individual's competence in L2 and/or L1 remains below this threshold his interaction with the environment through these languages is unlikely to optimally promote his cognitive and academic progress (p.11)
Positive relationship between bilingualism and on creativity	Acts as a review of 24 studies on creativity and bilingualism, 1965-1992, including primary research by the author.	Ricciardelli, L.: 1992, Creativity and bilingualism, Journal of Creative Behaviour, 26, 4, 242-254	The positive relationship between creativity and bilingualism can both influence and be influenced by creativity (p.251)
Enhanced skills in divergent thinking such as fluency flexibility originality	1st, 4th and 6th grade students from 4 elementary schools tested using Torrance Tests of Creative Thinking examining verbal and figural flexibility and originality.	Landry, R.,: 1974, A comparison of second language learners and monolinguals on divergent thinking tasks at the elementary school level. Modern Language Journal, 58, 1/2, 10-15.	Thinking Abilities Second language learning at the elementary level (FLES) was considered to be a possible situation where an enriched and stimulating environment to promote creativity did exist. Someone who was stimulated to switch from one linguistic context to another in his daily routine would be forced to maintain a certain adaptability and willingness to change. Such a situation would enable the student to develop possible neglected potentialities. Divergent thinking abilities, such as fluency, flexibility, and originality, were the potential

			behaviors involved in this study because they are characterized by adaptability and willingness to change (p.13)
Enhanced skills in originality and elaboration as creative functioning	1,063 3-5 grade children in Singapore, being educated in monolingual and bilingual schools, Chinese and Malay-speaking, tested with the Torrance Tests of Creative Thinking.	Torrance, E., Gowan, J., Wu, J.-J. & Aliotti, N.: 1970, Creative functioning of monolingual and bilingual children in Singapore. <i>Journal of Educational Psychology</i> , 61, 1, 72–75.	<p>Many observers have noted that the tension resulting from the competition of new and old associations facilitates originality of thinking and plays important roles in scientific and artistic breakthroughs. Thus, it was hypothesized that bilingualism would result in increased originality, especially if correction is made for fluency.</p> <p>Few clues were available, however, concerning the influence of competition of associations on ability to elaborate (p.73)</p> <p>The overall results show that the monolinguals excel the bilinguals on fluency and flexibility (<math>p &lt; .01</math>) but that the direction of the trend is reversed for originality and elaboration. The overall difference for elaboration is significant at about the .05 level but is not significant for originality.</p>

			If corrections are made for number of responses, the trend toward the superiority of the bilinguals over the monolinguals on originality and elaboration becomes stronger (p.72)
Code-switching is seen as an indicator of linguistic creativity	The author analyses youngsters of Turkish origin living in big cities in Germany. She shows that they develop new languages which are mixtures of Turkish and German. Although these languages cannot be called standardized languages, they clearly show aspects of linguistic creativity and are often used as instruments for communication with youngsters having another ethnic origin	Inci Dirim: Kreativität durch Code-Switching. Zeitschrift für Kulturaustausch 3, 2001	So ist es in einer Stadt wie Hamburg nicht schwer, Jugendliche aus rein deutschsprachigen Elternhäusern zu finden, die von klein auf bei Nachbarn und auf dem Spielplatz Türkisch gelernt haben und dieses Türkische ganz selbstverständlich in ihrem Alltag benutzen. Ebenso ist es leicht möglich, Migrantenkindern zu begegnen, die außerhalb von Schule und Elternhaus ihre Mehrsprachigkeit um Elemente weiterer Sprachen ihrer Freunde erweitert haben. Mischungen folgen bestimmten, unausgesprochenen Regeln. Es sind z.B. Transfers aus der einen Sprache in die andere oder das "Code-Switching" zu beobachten, ein ständiges Hin- und Herwechseln zwischen den Sprachen
Enhanced creative	24 Spanish-speaking	Carringer, D. : 1974,	...the individual who learns

thinking abilities	monolinguals and 24 Spanish-English-speaking bilinguals (mean 15.2 yrs, bilinguals started learning English at mean 6.4 yrs) tested using Torrance Tests of Creative Thinking Abilities	Creative thinking of Mexican youth : The relationship of bilingualism, Journal of Cross-cultural Psychology, 5, 4, 492-504	two languages develops a learning set for flexibility... The bilingual individual has to cope continually with the negative interference, and thus develops more cognitive flexibility in his efforts to overcome this interference..... bilingualism does promote creative thinking and at least in part serves to free the mind from the tyranny of words ... (p.502)
Enhanced problem-solving skills abstract thinking skills higher concept formation skills	Balanced bilingual children (110, 10 yrs, Canada) compared to monolinguals studies through cognitive perspective using IQ tests with bilingual children scoring higher on 15 out of	Peal, E and Lambert, W.: 1962, The relation of bilingualism to intelligence, Psychological Monographs 76, 27, 1-23	(the bilingual child is) a youngster whose wider experiences in two cultures have given him advantages which a monolingual does not enjoy (p.20)
mental flexibility			
Multilingualism as one factor which can have a positive impact on regional innovation and economic growth	Analysis of factors enabling creativity as a driving force in regional economic growth and prosperity. Case study through interview questionnaire of the Montréal region examining human intellectual capital and creative-capital theory with multilingualism as one strand.	Stolarick, K., Florida, R. : 2006, Creativity, connections and innovation: a study of linkages in the Montréal region, Environment and Planning A, 2006, 38, 1799-1817	innovations occur when individuals with high degrees of existing knowledge make novel and creative combinations of this knowledge with new insights observed or learned through spillovers (p.1801)  Having access to multiple languages and cultures also seems to have a positive impact on the region's talent itself. People `think

			<p>differently', we were often told, as a result of their bilingualism or multilingualism. A respondent from a consulting firm noted that when he is faced with difficult problems to solve, he intentionally forms strategy groups with multilingual staff. He observed that being multilingual means you understand the world from different perspectives and are more likely to devise creative and innovative solutions: it's 'good for the brain to have to learn how to work and think in [multiple languages]'. One problem solves with 'more creativity when you have to approach problems from both cultures'. And a constructive 'synergistic tension' is created by the presence of both English and French. These are all different explanations for what makes Montréal's cultural connectivity tick, (p.1812)</p>
<p>Learners in bilingual classes show significantly better results not only in the target language but also in the other subjects.</p>	<p>The informants are 180 pupils from grammar schools in Berlin, 100 from so called bilingual classes, and 80 from classes in which content subjects were taught in the students' mother tongue. The research is longitudinal, i.e. over</p>	<p>Zydatið, Woflagng: Deutsch-Englische Züge in Berlin (DEZIBEL): Eine Evaluation des bilingualen Sachfachunterrichts an Gymnasien, Frankfurt: Peter Lang 2009</p>	

	several years. Both groups were tested with respect to their competences in the target language and in the content subject.		
Advantages in divergent thinking (ability to simultaneously activate and process multiple unrelated categories)	c. 100 students (Russian L1, bilingual and those monolingual or with limited L2 language learning experience).	Kharkhurin, A.: 2008, The effect of linguistic proficiency, age of second language acquisition, and length of exposure to a new cultural environment on bilinguals' divergent thinking, <i>Bilingualism: Language and Cognition</i> 11,2,225-243, Cambridge University Press.	This finding indicates that being bilingual does not necessarily imply being creative, but rather that the positive effect of bilingualism on creative abilities is likely to be limited to unconscious automatic cognitive processing, which lays the foundation of more sophisticated processing during which truly creative ideas may be generated (p. 238)



## Chapter 5: Reflection on the CLIL Development Trajectory

*Content and Language Integrated Learning*, (2011) Encyclopedia of Applied Linguistics, New York: Wiley

### **Content and Language Integrated Learning**

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## Introduction

Content and Language Integrated Learning (CLIL) is a dual-focussed educational approach in which an additional language is used for the learning and teaching of both content and language. CLIL involves the use of language-supportive methodologies leading to authentic learning where attention is given to both topic, and language of instruction. ‘...achieving this twofold aim calls for the development of a special approach to teaching in that the non-language subject is not taught *in* a foreign language but *with* and *through* a foreign language’ (Eurydice, 2006: 8).

CLIL represents a holistic approach to learning which is heavily cognitive-based, and which draws on an interplay of the theoretical foundations of constructivism and second language acquisition. In Europe it can be found at all levels of compulsory education. Most commonly found in secondary education, it has in recent years become a significant activity at primary level. There is little CLIL implementation reported in tertiary education.

Often carried out through inter-disciplinary modules led by content and language teachers, or primary level class teachers, the amount of time given to CLIL within the curriculum tends to remain low. Globally, the most common vehicular language is English and in Europe there are increasing signs that CLIL is being adopted for the teaching of other languages.

## The Origins of CLIL

During the 1990s, the European Union was experiencing the triple pressures of integration, expansion, and modernization. Whilst multilingualism (the ability of citizens to speak different languages) acted as one of the pillars of European integration, education became a focal point for innovation particularly with respect to adjustment to the demands of the emerging information age.

Throughout this decade there was trans-national recognition that a delivery gap existed between what was being provided in many countries as language learning, and outcomes in terms of the ability of citizens to actively use these languages in their lives (see European Commission, 1995). There were language barriers identified (see European Commission, 1996) which were hindering the development of multilingualism and, consequently undermining some of the goals of European integration.

Educational expertise in different disciplines, including additional language learning, became actively engaged in exploring different pathways by which to better prepare young people for their future lives in information-rich environments. One example of this quest for pragmatic change was the 2006 formalization of a recommendation for all the European Union member states on ‘Key Competences for Lifelong Learning’.

Following a four year period of inter-disciplinary and trans-national expert dialogue, the term Content and Language Integrated Learning (CLIL) was adopted in 1994 and launched formally in 1996 (see Marsh, 2002). It designated a distinct range of methodologies that suited contexts where education was given in a language that was not generally the first language of the students involved. This included situations where students would be learning a foreign language, but also those involving the learning of regional, minority and heritage languages. The theoretical basis, and practical application of CLIL, was later recognized as applicable to contexts where students, often from migrant backgrounds, needed to accelerate their ability to learn through the majority language of the school (see Anderson, 2008 & 2009).

In the early 1990s, initial support was given by the European Commission to expert organizations, initially in Finland (University of Jyväskylä) and the Netherlands (European Platform for Dutch Education) for a twofold purpose. Firstly, to develop ways of articulating the principles of CLIL to the wider educational world, particularly in relation to language teaching and learning. Secondly, to develop a community of practice across the countries of the European Union, and beyond. This latter goal, which has actively attracted investment to the present day, is significant in enabling an understanding of how CLIL emerged, and why it has continued to spread widely since the first two attempts to monitor and report on the situation were published (see Eurydice, 2006; and Wolff, 2009).

During this period it was recognized that significant educational achievements in the simultaneous learning of language and content subjects had been made in different countries across the world. Examples could be found in relation to immersion (e.g. Canada and Catalonia), content-based language instruction (e.g. USA and Southeast Asian countries), bilingual education in European regions (e.g. Wales and the Val d'Aoste region of Italy), and a range of highly context-specific educational environments such as border and international schools.

The use of differing terms to describe educational practice that had similar methodological approaches was found to be commonplace. The strategic development of CLIL in the 1990s involved searching for and identifying commonalities of good educational practice within and across different geographical and social contexts, and establishing bridgeheads by which these could be taken into mainstream education for the benefit of large cohorts of students.

The origins of CLIL were essentially organic, and are directly linked to the adaptation of educational life during the rapid emergence of the information age as it permeated home, school and working life. Now, some twenty years later, the term is no longer viewed as a particularly European phenomenon, and has spread globally.

## The Emergence of CLIL

The emergence of CLIL in the 1990s can be linked to the language awareness movement which was developed in relation to both first and second language learning during the 1980s (Hawkins, 1984; Donmall, 1985).

Proponents of language awareness attempted to seek commonality of interest between those involved with first and second language teaching, and promote the curricular concept of 'languages across the curriculum' (Barnes et al., 1969). Much of this early work was carried out in the United Kingdom on social inequalities and low standards of literacy in the first language (Davie et al., 1972).

Language awareness is highly relevant in understanding why CLIL has continued to take root as in an age characterized by social, technological and educational convergence. One key feature of the new technologies which links to CLIL is that they involve social learning, are primed for the use of constructivist methodologies, and have become part of the connectivity lifestyle of young people.

The shift towards embedding features of language awareness into language learning curricula was often hindered by time pressure. Language teachers can only expect to achieve modest outcomes with a broad cohort of learners if limited time is available within the curriculum. The early development of CLIL was characterized by the need to search for a complementary extra platform for developing language learning. 'CLIL enables languages to be taught on a relatively intensive basis without claiming an excessive share of the school timetable' (Eurydice, 2006:9).

This 'extra space' would then enable specific forms of methodology to be used to achieve goals not attainable within a time and resource-restricted language learning slot within a curriculum. The methodologies developed into a form of education that surpasses 'language learning', and which enables learners to experience integrated 'language acquisition-rich' learning environments. Use of these methodologies results in moving beyond linguistic goals that are predominantly utilitarian, towards those that are essentially pragmatic.

CLIL is inspired by 'important methodological principles established by research on foreign language teaching, such as the need for learners to be exposed to a situation calling for genuine communication' (Eurydice, 2006:9). And as noted by Wolff (2009: 560), 'The experience (of CLIL) shows that both linguistic and content subject competence can be promoted within this integrated concept more effectively than when content and language are taught in isolation'.

Now we briefly outline some of the major drivers that underpin the relevance and adoption of this educational approach.

## Consolidation of insights from the educational sciences

The theoretical basis of CLIL is not exclusive to any single domain. In Europe, it has often been the case that practice has preceded research, but such practice has been grounded in research insights that draw on diverse traditions and sources. CLIL is inter-disciplinary and as such, it is not restricted to any single evidence-base or theoretical tradition.

However, there are certain fields that directly apply to the language learning aspects of CLIL practice. These are Language Awareness (LA), Second Language Acquisition (SLA), psycholinguistics, and Foreign Language Learning (FLL). There are others, which relate to education in general, or subject-specific learning contexts, that apply to the design of CLIL methodologies. The most obvious of these are the philosophical underpinning and research traditions of Learning Theory (LT) such as constructivism and cognitivism.

As Wolff observes, CLIL ‘... is at the interface of a number of academic disciplines which can result in controversies arising from differing perceptions, particularly in respect to terminology’ (2009: 563). The term ‘second language acquisition’ is a classic example of a field that involves sometime quite polarized orientation, and even diverse understanding of key terminology (see Doughty and Long, 2003). CLIL itself is prone to diverse forms of terminological misinterpretation and this has further complicated the establishing of links between separate research traditions.

The relevance of insights from such different fields depends partly on the scale, scope and type of CLIL model being implemented. These models differ widely (see Wolff, 2009), even if they utilize very similar core principles (see Marsh, 2002). The level of diversity makes generalization and transfer of research insights often problematic. This is particularly the case where specific forms of language development such as phonology are studied *in situ* without regard for other performance-based aspects of language competence.

The dual-focussed learning objectives of CLIL mean that insight into its theoretical foundations need to include but go beyond domains mainly involved with language acquisition and learning. Consolidation of an understanding of CLIL also needs to reach out to modern cognitive theories. These assume that people learn by interacting with their environment, and that this process ‘which involves both the person’s previous knowledge and the environmental stimuli is seen as a constructive process. During this interactive process new knowledge is constructed and learnt, and then integrated into the previous knowledge. The results of such knowledge constructions are always more than the sum of the environmental percepts; they are new concepts that cannot be foreseen. So learning is not adding information to information already stored, but constructing new knowledge’. (Marsh et al., 2009: 13). The co-construction of knowledge, of both content and language, is a key theoretical precept in understanding the educational benefits that are reported as surfacing through the implementation of CLIL (see Baetens Beardsmore, 2008). It is these benefits, often anecdotally reported at the outset, which have been one of the most significant driving forces for the uptake of CLIL.

### Convergence of insights from the neurosciences

The field of neurosciences has developed as a separate field over the last thirty years. Since 2000, it has expanded due to ongoing advances in neuroimaging and other technology enabling researchers to look inside the brain to a unprecedented degree.

Research is increasingly examining if knowing and using more than one language has a structural or otherwise positive impact on thinking and the brain (see Marsh et al., 2009). Dietrich comments that ‘advances in cognitive neuroscience in just the past two decades ... have been breathtaking and they have brought unprecedented understanding and predictive power about how the mind works (2007: 27). There is a dovetailing of the outcomes of studies conducted over the last forty years in largely non-laboratory settings with the recent findings often involving use of neuro-imaging techniques conducted in laboratory settings. This is now enabling a breakthrough in understanding what happens within the mind and brain when a person learns or uses more than one language. This has important implications for education in general, and especially CLIL (see Bialystock & Petitto, 2010).

One of the significant findings is that changes in the brain’s electrical activity may occur much earlier than previously thought. Osterhout et al. report that ‘Preliminary results from three studies indicate that classroom-based L2 instruction can result in changes in the brain’s electrical activity, in the location of this activity within the brain, and in the structure of the learners’ brains. These changes can occur during the earliest stages of L2 acquisition’ (2008: 510).

It has often been assumed that impact on the mind and brain would only be found if a person has a very high command of different languages. But studies such as Osterhout et al. (2008) suggest that changes in the brain may start even in the earlier stages of language learning. This has implications for not only recognizing the value of partial language competences, but also for understanding why certain approaches such as CLIL appear to lead to positive learning outcomes. The impact on the brain of knowing a second language, especially in relation to certain neural advantages, is increasingly being considered in relation to CLIL-type educational provision. Coggins, Kennedy and Armstrong argue that ‘(it is) ... possible that bilingual learning can have a profound effect on brain structures’. (2004: 73).

The cognitive neurosciences stress the need for powerful learning environments. Yet for various reasons not enough languages education is spent encouraging learners to engage in higher order thinking about meaningful content. There is now an intersection between the neurosciences and education, which acts as a driver in developing innovative approaches to learning such as CLIL. ‘After two decades of pioneering work in brain research, the education community has

started to realize that understanding of the brain can help open new pathways to improve educational research, policies and practice' (OECD, 2007: 13).

### **Demand for English Language**

Globalization has led to a demand for greater access to the English language (see Graddol, 2006). This has led to educational providers examining different ways of improving levels of English language competence. One option considered involves the learning of non-language content subjects through English. This has led to an expansion of schools and colleges that teach all or part of the curriculum through the medium of English. This shift towards teaching in English has raised discussion over what types of educational methodologies need to be applied if schools are to be successful.

Educational contexts differ with respect to the role of English outside the classroom, and the types of exposure which learners have which may be very high (e.g. Scandinavia) or low (e.g. Ethiopia). The adoption of 'blueprint models' which may work in one country (e.g. immersion in Canada) is rarely desirable, and this has led to attention being given to what types of 'language-supportive' methodologies might be both accessible and relevant **in local contexts**.

### **Demand for the learning of other languages**

CLIL-type educational provision is used for the teaching and learning of regional, minority, and heritage languages across the world. It is by no means restricted to English even if current indicators (in Europe only) show that English is the most commonly adopted vehicular language (Eurydice, 2006). It is an educational approach which is adopted to suit educational policies which aim to develop specific languages (e.g. within certain autonomous regions of Spain).

### **Internet-based Networking**

Internet-based networking is becoming an increasingly significant lifestyle phenomenon across many societies in the world, particularly amongst the younger generations. Countries obviously differ with respect to the use of multi-media technologies in education but networking is an ongoing new development, which has bearing on education, including the learning of languages.

A study (Balanskat, 2009) on the use of computers in European primary schools reports that during 2008-2009 some 75% of Europe's primary teachers use computers for school life, and that all 30 countries report investment in teacher's digital competence development. The same report suggests higher figures for

European secondary education. One aspect of having access to both computers and the internet is the social capital to be gained when groups of students and individuals engage in networking.

Increasingly low technology costs and adoption of a common language enables CLIL to provide leverage for connecting schools and students through projects and exchange on an unprecedented scale. As networking becomes frequent in the lives of young people out-of-school, there is pressure to introduce educational networking techniques for the purposes of curricular learning (see Rufer-Bach 2009). . In international linkage, access to a shared language is a key factor in enabling this to happen.

### **Competence-based education**

Information-rich internet-based societies require educational systems that develop specific types of competences. In Europe, amongst other regions, there is an ongoing shift towards competence-based education where competences are considered as the ability to use knowledge, skills and personal abilities in different contexts (see European Parliament, 2008). The constructivist basis of CLIL leads to learning outcomes that can be heavily competence-based in relation to both 'knowing' and 'doing'.

The 'Key Competences for Lifelong Learning in Europe Framework (European Commission, 2006) is one example of a means designed to influence educational systems and the curricula implemented. The recommended key competences for lifelong learning concern communication in the first and additional languages; mathematical, scientific and technological competences; digital competences; learning skills; interpersonal, intercultural and social competences; entrepreneurship; and cultural adaptability. Objectives of competence-based education such as these directly complement those of CLIL practice particularly with respect to communication and learning skills.

### **Counterforces to CLIL**

Issues that have been articulated against the implementation of CLIL have been mainly socio-political rather than educational. These have generally been linked to concerns about adoption of English as a medium of instruction, and an understanding that CLIL is a conduit for strengthening the spread of English language to the detriment of other linguistic or cultural interests (Marsh, 2002).

Protection of national languages (e.g. in Iceland, Netherlands, Norway, Slovenia, Sweden), and nationalism (e.g. in Malaysia), have led to political discourse and actions which have hindered the development of this type of educational approach.



Another issue concerns cultural and linguistic diversity, often resulting from migration (e.g. USA), which have led to increased efforts to teach the national language to young people, and unease with allowing additional languages to be used as a medium of instruction.

Finally, administrative (especially intra-ministry), international political agencies (e.g. those that seek to promote national interests), and professional bodies (e.g. language teaching and learning industry) may seek to block the principles of curricular integration so as to protect vested interests and avoid influencing the status quo. As Mehisto suggests 'CLIL programme implementation often causes disjuncture – a tension between one's current way of doing things and a new approach' (Mehisto, 2008: 109)

### Research Insights on CLIL

Wolff (2009: 550) suggests that 'CLIL is a practically oriented educational approach for which, until recently, researchers did not show much interest'. In Europe, CLIL practice has often preceded research.

But the increasing presence of CLIL-type provision in educational systems, both in Europe and in other parts of the world (e.g. Colombia, Malaysia, Singapore), as well as the interest of the European Commission to support CLIL implementation as a means to foster multilingualism (see European Commission 2003), has led to a growing need to analyze its impact on learning processes, results, and contexts.

CLIL has recently emerged as a distinct area of interest for researchers who have previously depended on studies in Second Language Acquisition (SLA), Bilingualism, Foreign Language Learning (FLL) and Applied Psycholinguistics for achieving understanding.

Navés and Victory observe that 'just as with most of the CLIL programmes implemented so far - which tend to be of an experimental nature - most of the research done up to now may also be characterized as being exploratory' (2010: 25). To date much of the available evidence has been anecdotal and resulting from small-scale studies. There is common agreement among researchers (e.g. Wolff 2009; Lasagabaster, 2008; and Navés, 2009, among others) on the need for more empirical research on CLIL.

Existing evidence has been gathered across countries and regions, using different research methods and tools, on diverse aspects of CLIL implementation (See Wolff, 2006; Seikkula-Leino, 2007; Lasagabaster, 2008; Navés, 2009; Ruiz de Zarobe & Jiménez Catalán, 2009; Navés & Victori, 2010).

Research has generally been on language learning within CLIL. However, other aspects of CLIL such as acquisition of content subject competence, development of

mother-tongue literacy skills, learner autonomy, affective learning factors (motivation and self-esteem), and cognitive development, are increasingly being reported.

### **Foresight Trends**

Given the complexity of international educational comparisons and the ongoing unfolding expansion of interest in CLIL, it is only possible to provide some conjecture on the future of this educational approach.

There is an increased demand for English language in many countries, which may lead to greater adoption of this language as a medium of instruction (see Graddol, 2010). There is also greater understanding of what types of educational methodologies need to be applied if schools are to successfully teach (partly or otherwise) through the medium of English as an additional language.

Global competition between universities and research institutes will involve greater numbers of degree programmes being taught through the medium of English language. This may lead to more secondary level schools opting to prepare students through partial teaching of academic subjects through the medium of English.

There is increased pressure for systemic structural change in certain educational systems to adapt to the social and technological changes in the wider environment (in Europe and elsewhere). This change involves moving educational practice away from 'transmission models' which have stubbornly remained commonplace, towards constructivist participatory modes of learning. CLIL may act as a catalyst for change in this respect (see Mehisto, 2008).

Focus on learning sciences and brain research will expand (due partly to the current trends seen in OECD countries, and particularly in respect to the OECD programme for International Student Assessment - PISA) which may lead to national initiatives exploring the link between understanding of the brain and educational practice. This may focus on the significance of competence-based learning through constructivist methodologies within situated collaborative environments. These mirror good CLIL practice, and are likely to lead to recognition that CLIL provides good learning environments for both content learning and language development.

Finally, perhaps the most significant ongoing development concerns what is termed Learning 2.0. New technical solutions that emphasize social learning through networking are likely to become increasingly developed and accessible. Partnerships between technical providers, publishers, and educational agencies are likely to lead to opportunities for learning, both within and outside the classroom, which could complement existing forms of CLIL implementation.

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## Discussion and Conclusions

The hypothesis approached in this thesis proposed that the adoption of the term Content and Language Integrated Learning (CLIL) in the early 1990s as a generic term to articulate practices appropriate for dual language teaching and learning environments would enable the emergence of innovative educational practice in inter-linked fields of educational expertise. Integrated into the hypothesis are four objectives. The first concerns Languages in Education.

### 7.1 Chapter 1 & Publication 1      The European Socio-political Dimension

**CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential**, (2002) European Commission: Public Services Contract DG EAC 3601, Brussels: European Commission

The term Content and Language Integrated Learning (CLIL) was adopted within the European Union, with the express support of the European Commission, so as to consolidate a specific form of educational innovation. This innovation required integration of different disciplines which for over a century had often been separated entities within educational systems, namely different subjects in the curriculum. In the early 1990s the imperative was on enabling more people across Europe to have access to the possibility to learn more languages. This required examining alternative platforms for achieving better overall language learning outcomes.

The European Commission could only provide forms of support, mainly in the form of guidance and finance. It had no mandate to dictate to the Member States in the field of education. The support was heavily geared towards networking, not research. Thus the experts within the Commission led a range of conferences and

other forms of dialogue with experts throughout Europe over some years to ascertain if CLIL provision could lead to better language learning outcomes. This involved stepping outside traditional language teaching communities of practice to see if cooperation between teachers of different disciplines could have a positive impact on the quality of language learning. CLIL provided one means by which to achieve this synergy of dialogue and practice.

In the 1990s, due to various social pressures resulting from political union and globalisation, the English language became the most commonly reported vehicular language in the types of CLIL experimentation and practice being found at that time. This created a backlash from those who were concerned about the spread of English in relation to a deficit in the learning other languages.

During the 1990s it was argued that there were no grounds for arguing that CLIL is limited solely to the adoption of English as a vehicular language. In fact some argued that as competences in English become more widespread the language is liable to lose the value of social capital thus raising the value of competence in other languages.

At this time there was also a structural problem within the European Commission relating to having different entities within the organisation responsible for differing types of languages, official, regional, minority and so forth. This resulted in undue separation between experts and organisations who were actually moving towards similar goals, namely better access to specific languages and innovative techniques which could be swiftly embedded into educational systems. But gradually, especially since 2000, there has been ever greater dialogue between such bodies which means that CLIL has shifted from focus on foreign language

towards not only language but also quality educational provision. At the same time it has involved use in languages other than English, including national/regional language teaching for immigrant students.

The importance of the European Commission support for this particular educational initiative was of fundamental significance during the 1990s and beyond. Now that a variety of other stakeholders have become directly engaged such as within the private sector, or at regional and national governmental levels, in 2012 it is reasonable to assume that the seed funding investment provided by the European Commission will be increasingly replaced by other financial and other market-driven and social support. Languages in education, particularly within the European Union have been given considerable attention and subjected to various forms of curricular change as a result of integrating languages with content fields.

## 7.2 Chapter 2 and Publication 2 The Inclusion Dimension

**Special Educational Needs in Europe: The Teaching & Learning of Languages**, (2006) Public Services Contract DG EAC 230303, Brussels: European Commission

The second objective concerns languages and inclusion. Social inclusion is one of the major principles of The 1957 Treaty of Rome and the emergence of the European Union. Inclusion involves both integration of students with diverse abilities and disabilities into mainstream education and also equality of access to education. For some time it was found, in certain environments, that children considered to have special educational needs should not be subjected to the pressures of learning 'hard' subjects such as additional languages. In this respect CLIL practice has been found to be not only particularly suitable for students with



differing types of special educational needs, but also for mainstream students. The similarities between CLIL methodologies and practice, and those pioneered by leaders in special needs education and languages, are considerable.

For example, in January 2011, Finland introduced a continuum assessment approach whereby every child entering school would receive some form of assessment at that given point for learning (Basic Education Act 2011). The approach was radical because it meant that a culture of individualized learning paths was embedded not only into the educational infrastructure, but also in the home-child-school partnership culture. This results in children with special needs being on the same continuum as, for example, children with specific needs due to giftedness and/or some form of specific talent. Even though Finnish classrooms in 2012 are still primarily heterogeneous with respect to cultural and language background, this was a specific type of intervention by which to establish means for parents, educators and children themselves to recognize individual strengths and weaknesses, and to understand that these change over time. It was an intervention specifically linked to diversity within a classroom and closely linked to both inclusion and integration.

In recent years there has been scepticism expressed over the impact of learning styles focused teaching alongside interest in the impact on broad and diverse school populations of scaffolded multi-sensory teaching. In the research on special educational needs and languages it is evident that a specific range of scaffolded methodologies which are multisensory is a successful formula for young people with a wide range of conditions. The 'rule of thumb' in Europe would suggest that this applies to 20-25% of children in schools. But if the linguistic issues are

factored in then in some regions when you combine special with specific needs (such as having difficulties with the medium of instruction) then the rates will be substantially higher. In addition, the research shows that young people who appear to have significant learning difficulties in one respect can excel if given appropriate stimulation in another. The fact that CLIL emerged as a an approach which brought about good results with certain types of special needs is significant in relation to outreach – how this approach brings results in demanding contexts. But it is also significant with respect to generic outcomes in that it can bring about significant gains for widely diverse sets of students whether high-performing or other. In relation to inclusion the argument exists that if integrative methodologies are beneficial for the lower performing 20%, and for the higher performing 20%, then they should be deployed for all students.

### **7.3 Chapter 3 and Publication 3**      The Language Awareness Dimension

**Language Awareness & CLIL**, (2007) Encyclopedia of Language and Education, New York & Berlin: Springer Science and Business Media

The third objective concerns Language Awareness. This is a field of interest which underpins learning about a language and, fundamentally, how to use a language.

The benefits of an integrated approach to language learning are that students can experience a meaningful-rich learning experience, in some ways similar to that when developing the first language. Thus it can provide an opportunity to avoid learning language in a compartmentalized way, devoid of non-language content. It enables students to approach learning in a meaningful way the experiences and

knowledge that they have previously built up based within and outside school. It encourages students to work collaboratively and engage in forms of higher order thinking using language, and thus provides an opportunity to develop language awareness throughout learning experiences. This could be achieved in a non-CLIL environment such as a foreign language lesson. However, constraints of time, curriculum, purpose, frequently reduces even the best language teachers ability to develop language awareness to any depth within a lesson. Thus CLIL can provide a platform for supporting language awareness goals due to its integrative nature and pedagogical practices.

#### 7.4 Chapter 4 and Publication 4      The Emergent Educational Neurosciences Dimension

**Study of the Contribution of Multilingualism to Creativity**  
(2009) European Commission, Public Services Contract  
EACEA/2007/3995/2, Brussels: European Commission

The fourth objective relates to Mind, Brain and Education. Knowledge of more than one language mobilises the potential for change that is linked to mental processes. The indicators are that these are more positive than negative. CLIL provides an additional, often complementary means for achieving enhanced opportunities for language learning and thus is closely connected to the emergent research on languages with respect to Mind, Brain and Education.

We have entered an age where non-invasive procedures enable us to look inside the brain on a scale never experienced before in the history of humankind. This is happening at a time when human skills and competences are viewed as a key driver for social and economic success in the Knowledge Society. The drive towards introducing an alternative way of learning, namely combining content and

language, and in so doing extending the curricular space given for languages development is an innovative form of practice which fits the goals of educational systems which are prone to slow-moving incremental improvement and not the types of transformational change which is now required. Research shows that equipping teachers with the skills and knowledge to explore innovative ways of designing and facilitating rich learning environments leads to enhanced learning outcomes. Mind, Brain and Educational research is a new field of insight that is likely to grow in significance for enabling development in education, including CLIL.

#### 7.5 Chapter 5 and Publication 5      Reflection on the CLIL Development Trajectory

##### **Content and Language Integrated Learning (2011)**

Encyclopedia of Applied Linguistics, New York: Wiley

This publication does not have a specific objective, as it is an updated encyclopedia article on the core subject of the entire thesis, namely CLIL.

In 1994, the CLIL Trajectory was launched with the strategic and financial power of the European Commission, and the expertise and vision of a wide range of experts throughout the Union.

In 2012 this trajectory is inter-linked with four other powerful vectors:

- Educational systems transformation
- Equity and inclusion
- Mind, Brain and Education research

- Media-rich learning environments

Even if the term Content and Language Integrated Learning (CLIL) evolves, and specialised movements emerge, which is likely, recognition that content drives literacy, and that literacy drives content learning, is unlikely to diminish. The major argument here is in respect to needing educational transformation especially in respect to competence-based curricula and standards, equity and inclusion, understanding of the impact of languages and learning on the mind and brain, and adapting to generations of young people who have high exposure to very specific types of media-rich experience from an increasingly young age.

### **7.6 Relevance of the Outcomes & Implications for the Educational Policies**

In the 1980s 'there were only a few countries in which integrated content and foreign language learning was known and here it mostly only occurred in elite schools – although this was frequently an result of long-standing traditions – today it can be assumed that with few exceptions CLIL is offered throughout the European context in a form appropriate to the definition' (Wolff 2007). Now in 2012, internet search engines show some 4.5 million results which is some indication of the extent to which it has become established. From 1994 – 2012 the trajectory has been steep. These publications are part of a small contribution to this development, which is not only about education. The outcomes of this work here and more specifically the activities of the many different activities and research reported also relate to education as the engine of national growth when you consider that 'A population of well-educated citizens increases national economic competitiveness. It also results in intangible benefits, such as political

stability, social well-being, and a more innovative approach to solving problems' (Moujaes 2012: 2). Efficiency of education through integration, inclusion of young people with differing abilities and disabilities, evidence of the impact of teaching and learning languages, are subjects which have been given close attention in this thesis all relate to contributing to building populations of well-educated citizens.

The European Commission report on CLIL (CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential) was one outcome of the European Year of Languages 2001. A range of events, meetings and other took place in 2001 and in subsequent years where aspects of the report were given attention. However many other events and forms of implementation through projects and so forth were also actively developed in this period as has been documented in Chapter 1.

The report was formally presented at the Launching Conference of European Year of Languages (EYL), Lund, Sweden (18-20.2.01). Then there were subsequent types of event where the reports, or parts of it, were given attention as part of a dissemination strategy. For example during 2001-2002 it was presented for:

Existing professional networks: European Language Council European Year of Languages 2001 Conference, Germany. (28-30.6.01)

Regional events: Lingua 2000, Lombardy, Italy (26-27.3.01).

National events: Leonardo European Year of Languages 2001 symposium, Finland (27-28.9.01).

EU entities: Integrating Vocational Practices and Language Learning in the Context of the Bruges Process, CEDEFOP, Brussels (28-29.11.02).

But it was in 2005, after the initial dissemination period that the report was given specific attention at the European Union Presidency Educational Conference, in Luxembourg (09-10.03.05). This led to formal recommendations to all member states of the European Union that CLIL should be implemented in mainstream education. This is well documented in Chapter 1 with respect to not only events and formal decisions within the European Union but also strategic plans such as the 2004-2006 European Commission Action Plan for Languages in Education: Promoting Language Learning and Linguistic Diversity.

The report on special needs education: Special Educational Needs in Europe: The Teaching & Learning of Languages, was commissioned in response to The European Year of People with Disabilities 2003. This was 'to drive forward the political agenda for full integration of people with disabilities as set out in 2001 in the Communication from the Commission entitled "Towards a barrier-free Europe for people with disabilities' (Formal European Commission Description). The report was to examine the provision of language teaching for a wide range of persons considered to have disabilities with respect to access to provision of additional language learning in mainstream education or other contexts.

Then there were subsequent types of event where the reports, or parts of it, were given attention as part of a dissemination strategy.

For example during 2006-2002 it was presented for European funded development projects in Kosovo and Russia:

Adult Education: Theory and Methods, FSDEK II MA Development Programme, University of Pristina, Kosovo 16-20.09.06

Inclusion of Special Needs Learners into Mainstream Education, Ministry of Education, Murmansk, Russia 08-10.02.06

Designing Tools for Change: Inclusion, Murmansk Region Educational Authority, Russia 12-13.04.06

The Murmansk Region Inclusive Education Initiative: Assuring Sustainability. International Scientific & Practice Conference, Murmansk Region Education Authority, Russia. 11.04.07

Integration of Pre-school and Primary School-aged Children with Special Needs into Mainstream Schools in the Murmansk Region, Murmansk Regional Education Authority, Russia 11-12.10.06

And also in various European Union dissemination and workshop events such as Language Learners with Special Needs, Chair, Early Language Learning conference, European Commission, Brussels, Belgium 24-25.09.09

The report on multilingualism and creativity which was one outcome of the European Year of Creativity and Innovation (2006) was presented in a range of events including:

The Added Value of Learning Languages: Insights from Research Implications for Lifelong Learning. CIMO, Helsinki, Finland 25.03.10

What do the educational neurosciences reveal about CLIL? 4<sup>th</sup> National CLIL Conference, European Platform, Ede. The Netherlands 02.03.10



Languages in Education & The Brain: Towards a Gender Equalizer. Gender Differences in Educational Achievement. Swedish EU Presidency Conference, Uppsala, Sweden 16-18.11.09

The Added Value of Multilingualism, Integration Foundation symposium, Tallinn, Estonia 25.08.09

Creativity and Multilingualism. European Commission 2009 Languages in Education Conference, Tallinn, Estonia 17.04.09

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### **7.7 Limitations of this Thesis and the Publications Included**

The publications included, and the thesis text, do not cover specific aspects of Content and language Integrated Learning (CLIL). These relate particularly to data which quantifies aspects of scale and scope of CLIL practice, evidence of learner outcomes, uptake of diverse languages, educational levels and types of schools, assessment within CLIL, and other operational factors.

In 2002, following publication of CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential, (2002) European Commission: Public Services Contract DG EAC 3601, Brussels: European Commission, a decision was made that an assessment of the scale and operational characteristics of CLIL in the countries of the European Union would be required. This resulted in a Eurydice study being

carried out over the period 2004-2006 whereby national agencies were required to examine and report on the position of CLIL in their respective educational systems. The final outcome can be found in Content and Language Integrated Learning (CLIL) at School in Europe (2006), Eurydice: European Commission. During 2010-2012 a follow up survey has been undertaken by Eurydice with reporting due for 2012.

In the overall CLIL Trajectory described here, CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential, (2002) European Commission: Public Services Contract DG EAC 3601, Brussels: European Commission provides a largely qualitative overview of the early development of CLIL practice, and not the type of quantitative assessment carried out by Eurydice.

One major aspect of any educational practice of this type relates to the types of schools and students involved in practice. During the last decades there has been a widespread movement across European countries towards inclusion of students with special needs into mainstream classrooms. The extent to which children with special needs should learn additional languages is explored in Special Educational Needs in Europe: The Teaching & Learning of Languages, (2006) Public Services Contract DG EAC 230303, Brussels: European Commission. This report cites existing data available on special needs education in Europe, through publications of the European Agency for Special Needs Education, but does not quantify levels of language learning with this type of student cohort. In describing applications of language learning practices suitable for specific types of learner, it identifies specific approaches which are forms of CLIL.

The article Language Awareness & CLIL, (2007) Encyclopedia of Language and Education, New York & Berlin: Springer Science and Business Media, which examines in a discursive manner language awareness with respect to teachers and learners does not provide examples of activities or curricula extracts. The objective in preparing the article was to establish linkage between two professional fields to show complementarity of interests.

The Study of the Contribution of Multilingualism to Creativity (2009) Science Report, European Commission, Public Services Contract EACEA/2007/3995/2, Brussels: European Commission, reports through meta-study analysis on the impact of languages on the mind and brain but does not provide definitive evidence through this process. Given the complexities involved and variables found in such research it was not possible to generalise out specific findings except to raise questions about how teaching and learning environments could be influenced by such knowledge. In this respect the data covered in the study provides sets of indicators only.

The article, Content and Language Integrated Learning, (2011) Encyclopedia of Applied Linguistics, New York: Wiley, acts as an updated summary of the scope of CLIL practice for an encyclopedia readership. It does not provide specific data on the scale of CLIL activities in the European Union, or globally, and does not summarise the findings of separate research studies on CLIL implementation.

The thesis reflects personal engagement in the development of CLIL since the early 1990s. Thus it acts to describe certain aspects of a development trajectory through reports and publications which are time-bound and specific to purpose. These

original publications are complemented by the chapter texts written specifically for this thesis which attempt to provide an update on research in specific fields.

In describing a trajectory, the thesis does not provide distinct quantification of CLIL in different countries with respect to features of interest in educational research. Information on scale of activities in national and regional educational systems is extremely demanding to obtain and it has been outside the scope of this work but provided through the auspices of Eurydice. The thesis does not analytically review a wide range of specific research studies. It does address the findings of interdisciplinary research because establishing an evidence-base to inform decision-making has been instrumental in the development trajectory. It identifies interpretative issues which need to be considered when evaluating and generalizing research results with respect to the development fields, but does not provide a comprehensive review of distinct research as reported in a range of publications.

Finally, even if there is coherence with respect to subject matter, it includes reports and publications compiled for different purposes over the period 2001-2012. Therefore the intended readership for each may differ according to original purpose and specifications. This is particularly the case with the three European Commission reports, and the two encyclopedia articles. The main purpose of the European Commission reports has been to analyze a specific issue and report back in a format that can be used for decision-making by respective stakeholders, particularly those involved at strategic and policy levels in regions and countries. The encyclopedia articles were produced for a readership which may not be fully informed on the issues addressed.

### 7.8 Future Lines of Investigation

It is envisaged that the future lines of investigation will be determined by both pro-active and reactive factors. Pro-active factors are likely to include focus on educational technologies particularly with respect to knowledge gained within the educational neurosciences on learning processes and the emergent new literacies; how CLIL contributes to making schools more effective; and development of media-rich environments which enhance learning through CLIL. Reactive factors are likely to include strategic and policy decision-making with respect to migration and diversity of students in schools; inclusion of students with diverse special and specific needs including lack of competence in national and regional languages; maintaining and enhancing quality of educational operations during periods of economic and social stress; and changes in higher education functions and financing where competitiveness in attracting certain types of international students introduces pressures with respect to languages of instruction.

Integrated technologies and integrated curricula (largely driven by the need for competence-based standards) are increasingly affecting how educational environments are designed. Research on how technologies can be utilized to provide learning experiences where content and language are integrated are likely to be determined by focus on digitalized classrooms; connectivity of devices; change in the role of teacher and teaching practice; change in the role of learner and learning practice through greater development of learner autonomy and peer to peer learning environments; and integration of gamification principals

alongside language scaffolding in educational resources used outside the classroom.

Migration and diversity of students in schools can mean that educational systems need to respond to a high degree of heterogeneity of linguistic skills in the language of instruction. Research on how CLIL practice can be instrumental in supporting this type of educational need, alongside that of wanting to improve learning of additional languages, is likely to become increasingly relevant. This also applies to the teaching of students with special or specific needs in regional, national or additional languages. During times of financial constraint as envisaged for 2012-2015 across the European Union, it will be increasingly necessary to estimate cost and effect with respect to any emergent innovative types of practice such as CLIL. As institutes of higher education seek to attract students from other countries and do so by introducing English medium education, particular at MA and PhD levels, research will become necessary to examine how to ensure that teaching and learning environments support heterogeneity of linguistic skills when studying complex content fields.

For these reasons above, amongst others such as socio-demographic shift; changes in workplace competences and cultures; globalization and new knowledge expectations, there are a range of key research fields which relate directly to the future of CLIL practice. These are given attention in the Talking the Future 2010-2020 CCN Foresight report and concern achieving greater understanding of how to extend good practice in the teaching and learning of languages across different languages themselves; developing innovative ways of embedding formative

evaluation into learning resources with particular interest in gamification and digital platforms; understanding more about the impact of knowledge of different languages on the mind, brain and well-being of individuals; approaches adopted to introduce early language learning to very young children; and the means by which to bolster teacher competences in respect to language(s) of schooling.

Finally, research on the scale and scope of CLIL practice will need to continue after the 2012 Eurydice reporting on activities in the European Union. This would need to cover subjects taught; languages adopted; educational levels of implementation; time dedicated to integrated learning; linkage with digital platforms; language and content learning outcomes; qualifications and recruitment criteria of educators; and school evaluation.

The main disciplines involved with such research will be principally drawn from educational science; the educational neurosciences; language learning and applied linguistics; distinct academic and subject fields such as mathematics and science.

**Aprendizaje Integrado de Contenidos y Lengua (AICLE):**

**desarrollo de una trayectoria**

Resumen en español

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## 1. Prefacio

Esta tesis supone la culminación de un compromiso personal que comenzó a principios de los años 90. En ella se describen los aspectos más relevantes de la trayectoria de un modelo educativo a través de informes y publicaciones que vieron la luz en su momento con un propósito específico. Asimismo, estas publicaciones originales se completan con una serie de capítulos escritos de forma específica que intenta aportar no solo la contextualización necesaria para las publicaciones, sino ofrecer una adecuada actualización de sus conclusiones.

## 2. Introducción: tema y proyección

AICLE, el Aprendizaje Integrado de Contenidos y Lengua es un enfoque educativo dual a través del cual se hace uso de una lengua adicional para el aprendizaje y enseñanza de contenidos, y que tiene como objetivo promover el dominio tanto de la lengua como del contenido en niveles predefinidos (Marsh *et al.* 2010). Desde 1990 AICLE ha aflorado como ejemplo de convergencia educativa interdisciplinar (Wolff 2012) que requiere de enfoques de investigación con múltiples facetas (Coyle 2007; Dalton-Puffer y Smit 2007; Lyster 2007; Mehisto 2011; Bonnet 2012).

Es a partir de 1995 cuando el Consejo de Europa comienza a articular medidas para favorecer la puesta en práctica de enfoques educativos innovadores para facilitar el aprendizaje de idiomas, y más en concreto, los que apuntan a la mejora de la competencia idiomática: 'One of the first pieces of legislation regarding cooperation in

CLIL is the 1995 Resolution of the Council. It refers to the promotion of innovative methods and, in particular, to the teaching of classes in a foreign language for disciplines other than languages, providing bilingual teaching' (Eurydice 2006:8). El Libro Blanco que editó la Comisión Europea a partir de esta fecha también señaló que los centros educativos de secundaria deberían considerar la posibilidad de enseñar determinadas asignaturas en la primera lengua extranjera, como se hace en los 'colegios europeos', los cuales fueron fundados principalmente para formar al alumnado en un ámbito laboral para llegar a ser futuros profesionales en Instituciones Europeas. Desde 1995 hasta la actualidad los programas europeos, las acciones legislativas educativas y otros factores de incidencia en los cambios educativos, tales como las relacionadas con las iniciativas profesionales, han contribuido en el establecimiento de AICLE en la educación (Eurydice 2012). 'The debate on CLIL is very much alive. Fresh initiatives to promote this still novel methodological approach will be undertaken in the years ahead, probably within the next generation of education and training programmes for 2007-2013' (Eurydice 2006:8). Es en este contexto en el que se incardina el alcance del cambio producido en la educación con la aparición del AICLE. Y su evolución, analizada en el detallado estudio europeo llevado a cabo por Eurydice in 2005-2006, se ha visto complementado por una posterior evaluación aparecida en el Eurydice de 2012.

La implantación de un modelo AICLE no debe basarse en criterios rígidos e unívocos. Así, Baetens Beardsmore comenta que las políticas educativas de cada país determinarán el tipo de enfoque AICLE que debe ser utilizado: 'the social situation in each country in general and decisions in educational policy in particular always have an effect, so there is no single blueprint of content and language integration that could be

applied in the same way in different countries – no model is for export’ (1993:39). En 2006, Eurydice ya advertía que la implementación del AICLE podría ser distinta en la mayoría de los miembros europeos. Su duración puede variar considerablemente, al igual que sucede con los medios necesarios para su implantación. La situación de las lenguas utilizadas es compleja de determinar, sobre todo debido al amplio abanico de factores que deben ser tenidos en cuenta para determinar del tipo de AICLE que debes ser utilizado. Las lenguas nacionales y regionales pueden ser enseñadas a través de un método interactivo que, aunque puede ser categorizad de diferentes maneras, suele estar relacionado con la educación bilingüe y la inmersión.

Los niveles de educación (ISCED 1-3) son los más estudiados, aunque éstos no incluyen la pre-escolarización, los cuales, uno por uno, no pueden ser administrados por las infraestructuras administrativas educativas regionales. Mientras que la mayoría de las actividades están dirigidas a la educación secundaria (Eurydice 2006:20; Housen 2002; Admiraal *et al.* 2006; Campo *et al.* 2007; Mewald 2007; Alonso *et al.* 2008; Marsh *et al.* 2009), el florecimiento de metodologías integradas dirigidas a etapas más tempranas ha permanecido sin cambios reseñables (Eurydice 2006:20; van de Craen *et al.* 2004; Maljers *et al.* 2007; Serra 2007; Marsh *et al.* 2009). La organización y evaluación de AICLE a través de Europa varía considerablemente en lo que se refiere a la administración de pruebas lingüísticas, pruebas de idiomas y de otras asignaturas. En ocasiones se trata de una combinación de ambas o de sistemas abiertos, en los que los alumnos se encuentran inmersos en programas AICLE de acuerdo a su oferta y disponibilidad. Las materias que se enseñan dependen en gran medida del sector educativo, con asignaturas creativas o de ciencias medioambientales fundamentales en la educación primaria, mientras que las ciencias y las ciencias sociales están dirigidas a

educación secundaria (Eurydice 2006:24; Wolff 2009). Lo que resulta significativo es la tendencia a desarrollar módulos transversales que amplíen el nivel de integración más allá de unos conocimientos básicos (Coyle, Marsh y Hood 2012; Maljers *et. al* 2007; Bonnet 2012; de Graaf *et. al* 2012). El tiempo dedicado al desarrollo de un programa AICLE oscila entre 1-2 horas por semana en adelante (Eurydice 2006). Así mismo, el reconocimiento del nivel adquirido depende del tipo de enseñanza impartida, con certificaciones especiales adicionales expedidos en algunos países, pruebas adicionales para certificaciones ya existentes en otros países, o incluso sin ningún tipo de certificación (Ronneper 2012). Debido a la naturaleza innovadora de los programas AICLE, se da el caso de que en muchos países la implementación inicial se ha llevado a cabo a través de proyectos pilotos (Eurydice,2006:33), los cuales finalmente dieron lugar a posteriores implementaciones (por ejemplo, el Decreto Nacional Italiano sobre la disposición de la formación inicial del profesorado en AICLE – septiembre 2011- y la formación posterior - Abril 2012-) o incluso a su reducción (por ejemplo, en el Reino Unido). De acuerdo con Eurydice (2006:51), los factores que impiden la implementación general son una ausencia de profesorado cualificado suficiente, los costes, una legislación restrictiva y la falta de materiales apropiados. Otros factores de importancia se encuentran relacionados con la preparación del profesorado y sus actitudes hacia los cambios en los modelos pedagógicos, no solo en lo que concierne al uso de otra lengua sino también a los diferentes enfoques de enseñanza y aprendizaje necesarios (Pavón y Rubio 2010; D'Angelo y Pascual 2012; Viebrock 2012).

En un principio AICLE se ha descrito como una metodología de doble enfoque (Fruhauf, Coyle y Christ 1996; Nikula y Marsh 1997; Marsh y Langé 1999; Marsh, Marsland y Stenberg 2001) que englobaba tanto el aprendizaje de contenidos como el

aprendizaje de la lengua, siendo considerado por tanto un tipo de enseñanza 'integrada' (Marsh y Nikula 1998).

Las principales características de la práctica de AICLE integrado tal y como la resumen Coyle, Holmes y King (2009:14) indican que este tipo de enseñanza conlleva contextos de aprendizaje en el que coexisten diferentes tipos de enseñanza, objetivos de aprendizaje y experiencias. Todo ello supone la síntesis de una práctica educativa sustentada en un contenido apropiado (significativo, nuevo y relevante), en la incorporación de conocimientos interculturales (donde la cultura se aplica a un amplio campo de diversa interpretación), en el procesamiento de la información (personalizado, por parejas y monitorizado); y en la progresión (secuencias de aprendizaje secuenciadas y engranadas en relación con el contenido y la lengua, y con las demandas racionales requeridas para la progresión en cada una de ellas).

La práctica educativa requiere en general de un buen ejercicio de enseñanza y aprendizaje, y unos buenos resultados educativos deben hacerse extensivos a un amplio número de alumnos (véase por ejemplo, Wenglinsky 2000). Los estudios demuestran de forma recurrente que más de un 40% del fracaso en el rendimiento de los alumnos apunta a un escaso número de horas de clase o al insuficiente nivel del profesorado (Wright, Horn y Sanders 1996; Alton-Lee 2002; Darling-Hammond y Baratz-Snowden 2005; Ingvarson y Rowe 2007). Sanders y Rivers (1996) consideran que a partir de los tres años un profesor competente puede aumentar la calidad de los resultados educativos a un 53%, comparado con un profesor neófito con alumnos que comienzan en el mismo nivel de rendimiento. Además, estudios sobre el impacto del liderazgo de la calidad escolar en los centros educativos que combinan prácticas administrativas y educativas revelan un impacto significativo. Marzano, Waters y McNulty (2005) hablan

de un aumento del rendimiento de los alumnos de un 20% en los casos en los que un director que dirija un colegio se centra únicamente en mejorar las prácticas educativas. Con el fin de integrar con éxito contenidos y lengua a través de AICLE, es comprensible que los expertos se centren en los medios a través de los cuales obtener resultados de calidad, e incluso si su práctica se lleva a cabo en centros donde la calidad de los resultados educativos es baja.

Al admitir que la práctica de AICLE influye en un gran número de factores que inciden en la calidad educativa, se reconoce tácitamente que la investigación debe atender a múltiples variables. En ocasiones se debe estudiar una materia dentro de un marco lingüístico en vez de no-lingüístico (Dalton-Puffer 2007; Lasagabaster 2007; Heine 2010, Llinares, Morton y Whittaker 2012; Navés 2011; Pérez-Canado 2012; Ruiz de Zarobe y Jiménez Catalán 2009; Zydariß 2012), la práctica AICLE puede ser interdisciplinar, multidisciplinar, temática, sinérgica o conllevar la fusión de todo ello en forma de proyecto basado en el contexto de aprendizaje (Vollmer 2008).

En la última década el enfoque dual que pretende alcanzar resultados educativos a través de la enseñanza simultánea de contenidos y lengua se ha visto influenciado por la investigación educativa multidisciplinar (Mehisto 2012). Ello ha dado lugar a un concepto de triple enfoque, en el que los objetivos de los contenidos y la lengua se persiguen mediante la comprensión de los procesos de cognición del alumno, normalmente denominados 'habilidades de pensamiento' (Coyle *et al.* 2012). Este triple enfoque es uno de los objetivos de quienes investigan la conciencia lingüística (Svalberg 2007; Yassin *et al.* 2010; Llurda 2010) y las neurociencias educativas (Fischer *et al.* 2007; Adescope *et al.* 2010; Ansari *et al.* 2011; Campbell 2011). Uno de los aspectos clave trata sobre la capacidad de diferenciar los

conocimientos dentro del curriculum a través del entendimiento de las destrezas cognitivas, de los contenidos y de la lengua con el fin de lograr un aprendizaje efectivo.

AICLE implica un desafío al *status quo* en el que las asignaturas son impartidas como disciplinas individuales (Wolff 2012). Ésta es una característica del desarrollo de la trayectoria de AICLE en Europa (Eurydice 2012), y progresivamente en otros continentes como Australia (Smala 2009, 2012; Turner 2012), Asia del Este (Shigeru 2011), Asia del Sureste (Yassin 2009), y Sudamérica (Banegas 2012) entre los años 1994 y 2012.

Esta tesis pretende describir las interpelaciones de AICLE con respecto a una adecuada práctica educativa (Hattie 2007; Sahlberg 2011); además de adentrarse en los resultados de estudios sobre la mente y el cerebro para llegar a entender de qué manera influyen en las prácticas educativas a través (OECD 2002; Pink 2005; OECD 2007; Jukes *et al.* 2010). Por tanto, este estudio se centra en destacar algunos de los factores y causas que han hecho posible el desarrollo de la trayectoria de los programas AICLE. A lo largo de esta tesis se trata de explicar, por primera vez, cómo y por qué esta particular innovación ha sido implantada en la práctica educativa internacional. Y, asimismo, se pretende describir el ámbito de aplicación de AICLE con respecto al tipo de transformaciones que se consideran esenciales en la práctica educativa si los sistemas quieren de verdad preparar a las jóvenes generaciones para la vida profesional y general en las modernas sociedades del conocimiento. Es por ello que en esta tesis, que supone un reflejo directo de mi propia trayectoria profesional a lo largo de la década pasada, no solo se presta atención a los fenómenos lingüísticos y educativos, sino también a la dimensión social, a la inclusión, a la investigación, a las nuevas formas de enfocar el conocimiento desde disciplinas ajenas a la educación, y

también a las presiones sociopolíticas y a las expectativas que los ciudadanos tenemos sobre el futuro de la sociedad (Asikainen *et al.* 2010; van de Craen *et al.* 2012). De forma más específica, a lo largo de ella se propone analizar el impacto de la integración en ciertos sectores educativos a nivel europeo, los beneficios de los programas basados en la integración de la lengua y los contenidos, la competencia lingüística y comunicativa, el acceso a la educación para un gran número de jóvenes con dificultades y con habilidades especiales, y las implicaciones derivadas de las aportaciones de la investigación y las ciencias en general sobre los beneficios que el bilingüismo, el multilingüismo y el conocimiento parcial de otras lenguas tienen sobre las prácticas educativas de corte socio-constructivista.

### **3. Contextualización de la trayectoria AICLE**

#### *Movimiento de arriba a abajo*

Durante las última tres décadas se ha venido produciendo un aumento en la adopción del inglés como medio de instrucción en la educación superior en Europa (ACA 200). En particular ello se ha debido al fenómeno de la globalización y a las emergentes corrientes que están conduciendo a la educación universitaria hacia un mundo más mercantilizado. En este contexto, los procesos de cambio a nivel universitario iniciados en Bolonia están intentado armonizar todo lo que concierne a la educación superior a nivel europeo.

El reconocimiento de los problemas que supone la adopción del inglés como medio de instrucción en universidades fuera del Reino Unido e Irlanda ha sido continuo a lo largo de los últimos años (Swann 2001; Ammon y McConell 2002; Beacco y Byram



2003; Sercu 2004; Wilkinson 2004; Marsh 2005; Coleman 2006; Rasanen 2008; Pavón 2009; Costa y Coleman 2012a, 2012b). A la par que se ha hecho un riguroso análisis de las razones por las que la introducción del inglés como lengua de instrucción en la universidad puede reportar indudables beneficios en ámbitos como el de la internacionalización, el intercambio de estudiantes, la movilidad del profesorado, la mejora de la empleabilidad y la atracción de alumnos extranjeros. Ya en el 2004 el Consejo Lingüístico de Europa se hizo eco de estos beneficios, entre los que incluyó también la oportunidad de atraer alumnado de alta cualificación que se dirigiría hacia la investigación y la posibilidad de conseguir financiación procedente del sector privado para para los programas de gratuidad del alumnado.

#### *Impacto en la educación en general*

El cambio hacia la adopción del inglés como medio de instrucción en la universidad ha tenido un impacto claro en la educación general, especialmente en la educación secundaria. En 2001, un estudio realizado en escuelas a lo largo y ancho del territorio europea (Marsh *et al.* 2001) reveló que existían cinco razones principales por las que sería beneficioso introducir el inglés como vehículo de la enseñanza: a) culturales (la construcción de un tipo de comprensión intercultural a través del aprendizaje de la cultura en otros países); contextuales (mejorando la imagen de la internacionalización en las escuelas); c) lingüísticas (mejorando las competencias lingüísticas y un mejor conocimiento de la propia lengua y de la lengua objeto); d) conceptuales (mediante el estudio de los contenidos a través de otras perspectivas y su incidencia en una mejor preparación para la universidad); y e) de índole pedagógica (mediante la introducción de métodos y programas diversificados y más eficientes). El énfasis en la integración y la diversidad cultural estaba presente en todos estos

razonamientos, debido sobre todo a que lo que entendemos como cultura subyace a todos los aspectos de la comunicación humana (Marsh 2009).

En resumen, las presiones de la internacionalización han conducido a que el inglés sea percibido como una lengua internacional y que sea adoptado como elemento de instrucción en la educación universitaria, lo que a su vez ha producido una presión en el mismo sentido en la educación secundaria y general (Graddol 2006). Éste ha sido uno de los aspectos relevantes que se han tenido en cuenta en el cambio hacia la promoción del uso de otras lenguas como medio de instrucción en el aula, aspectos que se mueven en paralelo con otro tipo de medidas educativas y sociales y que han conducido a la aparición de una propuesta educativa específica como AICLE.

#### *Mejor acceso a la enseñanza de lenguas*

Este tipo de medidas paralelas a las que mencionaba anteriormente nacen de la constatación de que los resultados en la enseñanza de idiomas no son lo suficientemente buenos en algunos países europeos y son potencialmente memorables en muchos otros, a la par de que el fortalecimiento de la unidad europea pasa por la consecución de un alto nivel de multilinguismo entre los diferentes pueblos (European Commission 2005). Ello ha llevado a una revisión de las políticas educativas a través de una serie de iniciativas promovidas por la Comisión Europea (Marsh 2002) encaminadas todas ellas hacia la mejora de prácticas educativas más eficaces (Swain 2006). En este contexto, los trabajos de Krashen (1985) sobre la significación del denominado 'input comprensible' (Input Hypothesis) han tenido una relevancia particular en relación con la superación de enfoques tradicionales en la enseñanza de

lenguas y con la adopción de programas basados en la transmisión de conocimiento a través de una lengua distinta a la materna.

En un principio, la inmersión y los programas basados en la instrucción completa de contenidos a través de una segunda lengua fueron las primeras iniciativas que pusieron en marcha. Sin embargo, los objetivos específicos de la Unión Europea y los diferentes contextos encontrados, con poblaciones escolares distintas según sea la región o país, o según sean los objetivos educativos particulares, han hecho que los programas AICLE hayan encontrado acomodo como una forma de servir a propósitos y contextos distintos (Baker 2006; Fortune y Teddick 2008) .

Así pues, nos encontramos con que la adopción del inglés como medio para promover a la internacionalización requiere que se preste atención a los programas educativos en lenguas, puesto que si la enseñanza se realiza mediante el uso de una lengua distinta a la materna se le debe prestar atención los cambios necesarios en las metodologías y los recursos. Ello ha llevado a que converjan dos intereses distintos y complementarios: la enseñanza de inglés con objetivos de internacionalización y la enseñanza de idiomas con objetivos educativos y para promover el multilingüismo. Se trata de dos intereses que proceden de sectores diferentes e interdisciplinarios y que afectan a niveles educativos distintos. En este punto los AICLE se ha convertido en una propuesta de gran utilidad para estos dos intereses puesto que sus objetivos no difieren significativamente ya que en ambos casos se intenta acelerar la competencia en una lengua adicional. Pero además, AICLE sirve como herramienta de igual utilidad para promover lenguas minoritarias (Anderson 2008, 2009).

*Influencia en las lenguas más allá de la educación*

La necesidad de acelerar el bilingüismo y el multilingüismo en Europa no se encuentra confinada sin embargo únicamente al ámbito de la educación. Existen por ejemplo factores de carácter que han sido tenidos en cuenta a la hora de promover iniciativas hacia el cambio, como por ejemplo el valor intrínseco de conseguir que la población pueda acceder a la posibilidad de utilizar varias lenguas. Grin (2003, 2007, 2008) nos habla del incremento de oportunidades profesionales inherente a la capacidad para utilizar varias lenguas. En el CILT (2006) se indica que las oportunidades para mejorar la empleabilidad individual pueden aportar grandes beneficios a las economías nacionales. Rendón (2003) alude al valor del bilingüismo en comunidades como Cataluña, destacando aspectos positivos y ventajosos que pueden incluso verse a mayor escala en comunidades nacionales como la canadiense (Canadian Council on Learning 2008).

Junto a los estudios que confirman los potenciales beneficios del uso de varias lenguas en términos educativos, económicos y sociopolíticos, existen además otros que se han encargado de analizar los costes del monolingüismo. Así, Skutnabb-Kangas (2008), Marsiglia *et al.* (1998), Smokowski y Baccallao (2006) y Grin (2007) han puesto de manifiesto la relación entre esta capacidad y numerosos y diversos factores que van desde los costes económicos de las transacciones comerciales hasta la salud (Mehisto y Marsh 2010).

Recientemente está emergiendo un tipo de estudio que intenta arrojar luz sobre los beneficios cognitivos de conocer más de una lengua, poniendo el énfasis en que la lengua no solo es un constructo social sino de tipo biocognitivo y neurocognitivo (Ullman 2006). En particular, se está abriendo al campo de investigación para intentar conocer el impacto que el conocimiento de varias lenguas tiene sobre la mente cómo

este conocimiento viene a su vez mediatizado por los enfoques de enseñanza y aprendizaje de lenguas que se utilicen (Gajo y Serra 2002, Braun 2007; Lyster 2007; Lamsfuss-Schenk 2008; Sierra 2008; Zydatiss 2009) y por las diferentes velocidades en las que este aprendizaje se produce dependiendo del contexto y condiciones de proceso de instrucción (Osterhout *et al.* 2008).

Gran parte de los trabajos encaminados a mostrar las ventajas del bilingüismo para la cognición (Blakemore y Frith 2005; van de Craen *et al.* 2012) no solo se centran en demostrar cómo se llega a conseguir un determinado grado de fluidez en una lengua, sino también en cómo esa lengua se forma y se desarrolla (Bradsford *et al.* 1999; Swain 2006; Wolff 2009). La relación que se establece entre AICLE y los procesos de cognición se basa fundamentalmente en el uso de información y conocimiento ya conocidos, y en la puesta en práctica de una metodología basada en un tipo de enseñanza y aprendizaje práctico y eficiente (Chamot y O'Malley 1990). Pero también es un reflejo de las corrientes actuales que se interesan por conocer las teorías cognitivas del lenguaje aplicadas a la educación y en particular al aprendizaje de lenguas (Kecskes y Alretazzi 2007).

El argumento de que el bilingüismo es beneficioso para los individuos y las sociedades se está extendiendo al propio ámbito de la salud a través de los trabajos sobre plasticidad neuronal y vasculatura neuronal, entre otros (Fratiglioni *et al.* 2004; Staff *et al.* 2003). Por ejemplo, Bialystock apunta a este respecto la posible relación positiva entre el bilingüismo y la aparición de diversas formas de demencia: "The speculative conclusion... is that bilingualism does not affect the accumulation of pathological factors associated with dementia, but rather enables the brain to tolerate the accumulated pathologies (2007:463).

*AICLE y la enseñanza de lenguas en Europa*

Existe un factor clave que explica la aparición y consolidación de AICLE a nivel europeo que tiene que ver exactamente con la funcionamiento de los centros y que no es otro que el tiempo disponible a lo largo del currículo. Los profesores de idiomas conocen y hacen uso desde hace mucho tiempo métodos potencialmente eficaces para proporcionar una enseñanza de calidad para sus alumnos (Gatbonton y Norman 2005), pero el tiempo dedicado a la enseñanza de idiomas en el currículo resulta por lo general demasiado limitado para poder proporcionar a los alumnos una exposición adecuada a la lengua que se aprende. En la actualidad existe una gran oportunidad de recursos multimedia y basados en Internet que permiten ofrecer una exposición más que adecuada y suficiente, pero sin embargo sigue sin haber tiempo suficiente para el fomento de la interacción natural dentro de un entorno formal.

AICLE viene a ayudar en este sentido proporcionando una forma de interacción y uso de la lengua más natural y relacionada con los procesos reales de acceso, procesamiento y transmisión del conocimiento, y el uso combinado de las nuevas tecnologías y los programas AICLE ofrecen unas perspectivas exteriormente desconocidas en el ámbito de la enseñanza tradicional de idiomas. Como sostiene Oddone (2012: 201): "CLIL methodology resorts to authentic materials and situations to teach subject through a foreign language with the purpose of creating real, motivated learning conditions. The web offers several tools that address these needs: blogs and wikis facilitate interaction and collaboration in the construction of knowledge and expertise".

Como se ha intentado resumir aquí, la trayectoria que ha ido desarrollando AICLE responde a una amalgama de fuerzas y presiones. Los beneficios de conocer y usar más de una lengua a nivel cognitivo, profesional, educativo y económico son bien conocidos (García 2009) y solamente por ello se justifica y explica el que en la actualidad se invierta tanto esfuerzo en promover este tipo de aprendizaje, y de forma más particular, en promover un tipo de bilingüismo educativo, AICLE, capaz de adaptarse a contextos y objetivos muy distintos.

#### 4. Resumen introductorio de las cinco publicaciones

La investigación que ha dado lugar a la publicación de *AICLE/CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential, (2002) Comisión Europea: Public Services Contract DG EAC 3601, Bruselas: la Comisión Europea* se basa en un resumen crítico de estudios ya existentes, así como en el análisis de sus resultados con vistas a futuras políticas y a su desarrollo dentro de la Unión Europea. El artículo se centra en dos principales aspectos con respecto a la enseñanza y el aprendizaje a través de una lengua adicional: la dimensión europea emergente a través de las declaraciones, resoluciones y comunicaciones supranacionales; y la dimensión europea emergente a través de acciones, proyectos e iniciativas entre 1989 y 2001. El estudio se centró en el desarrollo estratégico del Año Europeo de las Lenguas (*European Year of Languages 2001*), y el Plan de Acción de las Lenguas en Educación de 2004-2006, cuyos objetivos eran promover la diversidad lingüística y el aprendizaje de la lengua.

La necesidad de estudiar y analizar la agudad de acceso, la inclusión y la forma de conseguir mejores resultados para una gran cantidad de ciudadanos jóvenes

dio lugar a la investigación *Special Educational Needs in Europe: the Teaching & Learning of Languages (2006) Public Services Contract DG EAC 230303, Brussels: European Commission*. Este estudio se basa en la identificación de evidencias para sustentar las buenas prácticas que confirman los beneficios del aprendizaje de la lengua por parte de alumnos con necesidades especiales y específicas (Bernal 1993; AltonLee 2003). Así, el concepto "necesidades especiales y específicas" incluye tanto a los alumnos considerados como más talentosos como a los que por causas temporales derivadas de problemas con la inmigración u otras pueden llegar a mostrar un cierto déficit de conocimientos. El estudio se centra en la identificación de la investigación que ayuda a entender la buena práctica en alumnos con una amplia variedad de necesidades educativas especiales. Se hace especial hincapié en los estudios relacionados con los aspectos prácticos: el compromiso cognitivo, las capacidades para resolver problemas y para establecer prioridades, alumnos con necesidades especiales y específicas, la disposición educativa de la enseñanza integrada de lenguas y la aplicación de los enfoques relacionados con la enseñanza de lengua y contenidos. Este estudio se empleó en el desarrollo estratégico para el Año Europeo de las Personas con Discapacidades (*European Year of People with Disabilities, 2003*).

El artículo *Language Awareness & CLIL, (2007) Encyclopedia of Language and Education, New York & Berlin: Springer Science and Business Media* es un artículo recopilatorio que estudia la relación entre el conocimiento de la lengua y AICLE. El artículo se centra en tres principales aspectos: el desarrollo de la conciencia del lenguaje, la conciencia de la lengua del profesorado y la conciencia de la lengua del alumnado. La conciencia lingüística en general se encuentra íntimamente ligada al desarrollo de la autonomía personal del estudiante y afecta consecuentemente a su



propia conciencia como alumno (Marker *et al.* 1996; de Jong 2006; Elsner y Kebler 2012).

La investigación que da lugar a la publicación del estudio sobre *Contribution of Multilingualism to Creativity (2009) Science Report, European Commission, Public Services Contract EACEA/2007/3995/2, Brussels: European Commission* se basa en un meta-estudio de las evidencias disponibles para respaldar o poner en tela de juicio una serie de hipótesis sobre la relación entre multilingüismo y creatividad. El estudio conlleva el análisis de las evidencias de investigaciones previas de diferentes disciplinas, la creación de un compendio de estudios coetáneos con los artículos de investigación clave y los análisis de los resultados de acuerdo con la flexibilidad y el funcionamiento cognitiva, y con la comunicación interpersonal.

El artículo *Content and Language Integrated Learning (2011) Encyclopedia of Applied Linguistics, New York: Wiley* es un artículo recopilatorio que examina la función de AICLE dentro del ámbito de la Lingüística Aplicada con respecto a sus orígenes y florecimiento, la consolidación de las aportaciones procedentes de la educación y la neurociencia, la demanda de lenguas, la conexión de redes en Internet, y la educación basada en competencias. Debido a su naturaleza interdisciplinar, existe la necesidad de adaptar AICLE a muy diversas audiencias, para lo que resulta indispensable encontrar los rasgos más comunes que faciliten su interconexión (Coyle 2007).

## 5. Justificación de las publicaciones aportadas

En los últimos años las fuerzas inherentes al proceso de globalización han ejercido una notable presión en el seno de las sociedades. El movimiento socio-

demográfico, la innovación científica y tecnológica, la necesidad de adquirir nuevas competencias y conocimientos, la gobernabilidad, la seguridad y el cambio económico son algunos ejemplos de cómo el fenómeno de la globalización ejerce una gran influencia en las realidades ya existentes. Estas presiones con frecuencia implican un cambio directo, así como el reconocimiento de que el cambio necesita ser llevado a cabo (European Commission 2010).

Moujaes *et al.* (2012) examina cómo el cambio ha repercutido en el sector educativo: 'Globalization, new technology, and changing social patterns have significantly disrupted the education sector over the past decade. National education systems have scrambled to respond to these shifts, which are likely to increase in the future.' En este contexto, las transformaciones que se operan en los sistemas antiguos simplemente no funcionan. Las iniciativas específicas pueden ser bien intencionadas, aunque puede que terminen fallando en su implementación. Una de las razones de mayor peso para que esto ocurra es la falta de comunicación y colaboración entre los diseñadores de una determinada política educativa y los agentes implicados. Así, los legisladores a menudo fallan a la hora de recoger las inquietudes y necesidades de estos agentes: los administradores de los centros, los profesores, los padres, los alumnos, el sector privado, y el sector terciario (Moujaes *et al.* 2012:1).

La transformación implica la introducción de paradigmas totalmente nuevos, o la creación de nuevas formas de trabajar a través del intercambio de ejemplos de buenas prácticas de carácter innovador, original y novedosas ya existentes

Esta tesis se interesa en uno de estos ejemplos de interconexiones o intercambios relacionados con el papel de las lenguas en educación. Los tres estudios

que se muestran se desarrollaron a partir de una Solicitud de Oferta de la Comisión Europea con el fin de lograr entender en profundidad ciertos aspectos del cambio, la transformación y las prácticas innovadoras. Todos ellos se encuentran relacionados con formas integradas de ver la educación, y en particular se centran en el Aprendizaje Integrado de Contenidos y Lengua (AICLE).

Cada uno de los artículos de la Comisión European son únicos. Antes de 2002, no se había llevado a cabo ninguna investigación para examinar y explicar el aprendizaje integrado de las lenguas como un fenómeno a nivel europeo. Y lo mismo puede decirse sobre la enseñanza de lenguas a alumnos en centros europeos como una de las necesidades específicas en educación. Así mismo, no existían estudios anteriores a 2009 que investigaran la contribución del Multilingüismo a la creatividad en relación con las lenguas. Todos estos artículos han sido originales e innovadores, y la razón por la que la Comisión Europea solicitó su elaboración fue porque se detectó que existía un déficit de conocimiento en cada uno de estos campos. Los dos restantes artículos son también originales puesto que se centran en el aprendizaje integrado de lengua y contenidos como un esfuerzo interdisciplinar.

Para terminar con esta justificación, resulta interesante recordar la importancia del aprendizaje de lenguas en la formación integral del individuo: 'We are entering an age where the added value of learning languages, linked with the development of inter-related electronic literacies, is becoming profoundly important', tal y como se afirma en *Talking the Future 2010-2020 CCN Foresight Think Tank Report* (Asikainen et al. 2010:4). Existen, pues, una serie de factores de carácter primordial relacionados con la enseñanza de lenguas, y en los que la enseñanza integrada de contenidos y lengua puede contribuir enormemente. Estos son principalmente los fundamentos

neuroológicos, cognitivos, motivacionales y sociales del aprendizaje; los procesos de aprendizaje a largo plazo y la posibilidad de e-aprendizaje 2.0/3.0; la creación de redes de colaboración para compartir innovaciones; los sistemas educativos y el aprendizaje informal; las tecnologías humanas que sustentan el aprendizaje en situaciones operativas y tecnológicas; el ámbito educativo privado y público; así como los proveedores de materiales. Las publicaciones de esta tesis destacan la mayoría de estos factores, particularmente a través de la conexión de la investigación desde diferentes disciplinas con las prácticas de enseñanza y aprendizaje.

## **6. Objetivos de la tesis**

El objetivo principal de esta tesis es revisar algunos de los hitos en el desarrollo del Aprendizaje Integrado de Contenidos y Lengua (AICLE) como enfoque educativo que ha aportado una serie de medidas educativas adicionales a los requerimientos socio-políticos actuales. Durante el periodo 1990-2012 se han sucedido cambios importantes en las sociedades y en particular en las demandas de los sistemas educativos. A través de una selección de investigaciones, esta tesis intenta analizar algunos de los factores más importantes en la integración curricular que afecta a la relación entre la adquisición de contenidos académicos y el aprendizaje de lenguas.

De esta forma, los cinco artículos se centran en describir la integración, la inclusión, la conciencia lingüística y el impacto sobre el aprendizaje de una lengua y el uso de la mente que se derivan de la aplicación de AICLE como enfoque educativo.

Así, para alcanzar este objetivo general, en sus diferentes capítulos se ofrece una revisión histórica de estos cuatro campos relacionados como objetivos específicos. Cada uno de los cuales es explicado y revisado detalladamente en los Capítulos 1 al 5.

#### Sub-objetivo 1: lenguas y educación

Publicación: *CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential, (2002) European Commission: Public Services Contract DG EAC 3601, Brussels: European Commission.*

Esta publicación examina los diversos enfoques que a través de la historia han abordado las lenguas en la educación, y se adentra en la descripción de la emergente integración de la enseñanza de idiomas con la enseñanza de contenidos. Tiene como propósito asimismo mostrar el desarrollo pan europeo de las distintas iniciativas que se han tomado para conseguir dar forma a esta integración entre las disciplinas lingüísticas y las no lingüísticas.

#### Sub-objetivo 2: lenguas e inclusión

Publicación: *Special Educational Needs in Europe: The Teaching & Learning of Languages, (2006) Public Services Contract DG EAC 230303, Brussels: European Commission.*

Esta publicación describe las necesidades y las oportunidades de acceso al aprendizaje de lenguas de los alumnos con necesidades especiales, centrándose en identificar a la enseñanza integrada de lenguas y contenidos como un medio apropiado para que estos alumnos puedan aprender una lengua. En este grupo de alumnos se engloba un gran número dentro de la educación regularizada cuyas dificultades se encuentran en

la falta de equidad y el acceso a la mejor enseñanza de lenguas posible. Debido a la agenda sociopolítica de los gobiernos en su búsqueda de la igualdad de acceso a cualquier desarrollo educativo innovador, este estudio implica a un número muy grande de alumnos inmersos en la educación reglada.

#### Sub-objetivo 3: conciencia lingüística

Publicación: *Language Awareness & CLIL, (2007) Encyclopedia of Language and Education, New York & Berlin: Springer Science and Business Media.*

Esta publicación se centra en la relevancia de dos campos de interés complementarios, la conciencia lingüística en la que el hablante desarrolla una comprensión más profunda del uso del lenguaje, y la posibilidad que ofrece la enseñanza dual de lengua y contenido para ayudar a conseguir potenciar este desarrollo. El objetivo es por lo tanto demostrar que los enfoques integrados de lengua y contenido pueden llegar a facilitar este desarrollo, un desarrollo que resulta más difícil de conseguir a través de un aprendizaje de lenguas convencional debido a las dificultades relacionadas con el tiempo y con una inapropiada identificación de los objetivos de aprendizaje.

#### Sub-objetivo 4: mente, cerebro y educación

Publication: *Study of the Contribution of Multilingualism to Creativity, (2009) Science Report, European Commission, Public Services Contract EACEA/2007/3995/2, Brussels: European Commission.*

Este informe revisa el impacto del aprendizaje de una lengua, su conocimiento y su conciencia de uso en la mente y el cerebro en el contexto de la educación primaria. Se

intenta demostrar que a través de una apropiada enseñanza de lenguas se puede mejorar el aprendizaje general en la educación. Para ello se presentan indicios de las ventajas que supone la utilización de la integración de lenguas y contenido y se ofrece una justificación con respecto a los objetivos de aprendizaje que se requieren para este tipo de enseñanza, particularmente en lo que se refiere al trabajo con las distintas competencias.

### **7. Hipótesis primaria**

Que la adopción el término Enseñanza Integrada de Contenidos y Lengua (AICLE) en los inicios de la década de los 90 del siglo pasado engloba de forma genérica a todo tipo de programas que pongan en práctica de forma apropiada una enseñanza dual, y que se trata de una iniciativa pedagógica de carácter innovador basada en la interrelación de prácticas educativas consolidadas.

### **8. Descripción de la dimensión científica de las publicaciones**

Esta tesis se basa en el trabajo conjunto presentado en cinco publicaciones. Cada una de ellas se ha elaborado mediante el uso de metodologías distintas, por lo que es posible encontrar síntesis de resultados y evidencias, meta-análisis, revisiones narrativas y estudios de casos.

La primera de las publicaciones, *CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential*, (2002) *European Commission: Public Services Contract DG EAC 3601, Brussels: European Commission*, se centra en la explicación de

lo que supone la enseñanza de una materia a través de una lengua extranjera, lo que se conoce como AICLE (en español, Aprendizaje Integrado de Contenidos y Lengua) y EMILE (en francés, *Enseignement d'une Matière par l'Intégration d'une Langue Etrangère*). En sus términos originales de referencia, AICLE y EMILE se refieren a contextos educativos duales en los que se utiliza una lengua adicional para la impartición de contenidos académicos.

El estudio que pertenece a una serie de cuatro investigaciones que se realizaron a partir de 2011 con el objeto de analizar algunos aspectos relacionados con la situación de la enseñanza y el aprendizaje de lenguas extranjeras a nivel europeo. Entre estos aspectos estudiados se encuentran la formación del profesorado de idiomas, el aprendizaje temprano de lenguas extranjeras, la enseñanza de contenidos a través del uso de una lengua extranjera, el impacto que las nuevas tecnologías de la información y la comunicación tiene sobre esta enseñanza y el papel del profesorado ante los nuevos retos.

El objetivo era proporcionar a la Comisión Europea una serie de evidencias basadas en la práctica real y un análisis de campo de la situación en Europa que sirviera de base para la toma de decisiones en las futuras políticas educativas. Y el trabajo se incardinó en el marco establecido en su momento por el Libro Blanco *Teaching and Learning: towards the learning society* (1995), en el que la Comisión enfatiza la importancia de que todos los ciudadanos europeos sean capaces de hablar dos lenguas distintas de su lengua materna.

El trabajo consistió en revisar y resumir la literatura más reciente sobre el tema y las acciones e iniciativas tomadas a nivel europeo en lo que concernía a la enseñanza



integrada de contenidos y lengua en la enseñanza infantil, primaria, secundaria y vocacional (profesional en España), También en analizar los resultados de estas iniciativas y definir su ámbito de aplicación a nivel europeo. Las conclusiones que se obtuvieron tenían que ver con la relevancia de esta propuesta educativa para los objetivos generales de la Comisión, con el potencial de estos programas como medio de mejora de la enseñanza de idiomas y con su potencial asimismo para aumentar el número de alumnos que terminan aprendiendo lenguas de forma exitosa.

Los aspectos a los que los resultados de este estudio apuntaban de forma específica tenían que ver con la promoción de la diversidad lingüística (incluida la que se da en la enseñanza formal en el aula), con el estímulo para que se aprendan lenguas de carácter minoritario distintas a las que normalmente se enseñan, con el reto de que cada ciudadano europeo sea capaz de utilizar dos lenguas distintas a la maternal, con la mejora de la calidad de la enseñanza de lenguas extranjeras en general y con el aumento de programas óptimos de enseñanza de lenguas extranjeras. Para ello se revisaron diversos estudios relevantes, publicaciones, bases de datos, redes, etc., a nivel europeo, nacional y regional, estudios entre los que se puede mencionar de forma destacada *Profiling European CLIL Classrooms* (Marsh, Maljers y Hartiala 2001).

En lo que concierne a la metodología del estudio en sí, se creó una comisión de expertos representando distintas áreas profesionales con el objeto de proporcionar asistencia, guía y una posterior evaluación. Asimismo se creó una comisión asesora que se encargó de ayudar en la proceso de investigación examinando la relevancia de las distintas publicaciones, artículos, documentación no publicada o información derivada de recursos multimedia. En subsiguientes etapas de la investigación se accedió a grupos de trabajo y profesionales individuales para recabar información. Con la

información obtenida a través de todas estas fuentes se procedió a la consolidación y elaboración del informe. Este tipo de trabajo permitió el uso de síntesis basadas en evidencias, de resultados de investigaciones varias y de descripciones narrativas basadas en fuentes reales en contextos de enseñanza primaria y secundaria. Aún cuando un gran número de personas contribuyeron a la culminación del proceso, en quien suscribe ha descansado únicamente la responsabilidad sobre la interpretación final de las opiniones expresadas.

La síntesis basadas en evidencias examinaron el desarrollo paralelo de iniciativas relativas al papel de las lenguas en la educación, a la educación en general, y a las propuestas transnacionales en ambos casos. Para ello se estudió toda la documentación oficial y semioficial emanada de la Comisión Europea y del Consejo de Europa en forma de actas, comunicaciones, tratados y recomendaciones. Además, se examinaron otros tipos de acciones, proyectos e iniciativas que tuvieran que ver con el desarrollo de AICLE. Todo ello se complementó con 17 estudios de casos, siguiendo los requerimientos establecidos por la Comisión en sus términos de referencia. En ellos se definía el propósito, lugar y nivel de las iniciativas que debían ser desarrolladas. Se recogieron las recomendaciones referentes a las acciones sociales, estratégicas y prácticas y se sometieron a revisión con el objetivo de reforzar su distribución a través de países, grupos de expertos y sectores.

Las revisiones narrativas fueron compiladas por este autor teniendo en cuenta los campos desde donde procedían y su pertenencia a grupos de trabajo o de investigación. La dimensión más narrativa del estudio comprende una revisión crítica de la situación en la Unión Europea en los años 200-2001, proporcionando una revisión histórica del desarrollo de AICLE y su situación en ese periodo.

El estudio se inicia con una serie de apreciaciones procedentes de expertos en campos muy diversos sobre la relevancia y el potencial de AICLE, incluyendo comentarios sobre su desarrollo actual y su expansión. Se hace un esfuerzo especial en presentar este tipo de iniciativa como una forma efectiva de ayudar a alcanzar los objetivos lingüísticos de la Comisión, tanto en lo que concierne a la mejora que supone para la calidad de la enseñanza de idiomas y para el incremento de alumnos que consiguen llegar a sus objetivos de forma exitosa.

El Capítulo 1 (Nacimiento) es un inventario en el que se apuntan las acciones relacionadas con la implantación de AICLE y su contribución en lo que se considera una enseñanza efectiva de lenguas extranjeras. En este capítulo se contextualiza AICLE dentro de un entorno socio-histórico y pedagógico con el objeto de establecer los principios que llevarán a considerar su relevancia y potencial. Se puede considerar como un capítulo introductorio sobre los orígenes y la situación actual de AICLE.

El capítulo 2 (Dimensión) resume los hitos en el desarrollo de AICLE aparecidos en la literatura más reciente, así como los resultados de investigaciones, las acciones y los eventos relacionados con este desarrollo. Asimismo, describe el papel de AICLE como una apuesta educativa innovadora que puede llegar a cubrir todo el espectro de la educación, desde la guardería hasta la educación de adultos; a la par que proporciona la justificación teórica de su desarrollo, los problemas y el debate que surgen con su implementación e introduce las condiciones y oportunidades para que pueda ser utilizado en contextos diversos.

El Capítulo 3 (Realización) examina los distintos tipos de acciones para el desarrollo e implementación de AICLE y evalúa las condiciones por las que ha sido elegido en algunos países europeos.

El Capítulo 4 (Entrega) proporciona 17 estudios de caso en 12 países que ejemplifican una serie de prácticas educativas con un alto grado de calidad e innovación. Cada uno de estos ejemplos añade un comentario sobre su potencial y la posibilidad de transferencia a otros contextos.

El Capítulo 5 (Valor añadido) se centra particularmente en sus posibilidades de aplicación. Se encarga de identificar los factores de éxito que, en términos de valor añadido, permitirían a AICLE implantarse en entornos específicos.

El Capítulo 6 (Perspectivas) examina cómo su posible implantación puede llegar a solventar muchos de los retos de la enseñanza de lenguas extranjeras. La idea es que las necesidades lingüísticas del contexto socio-económico europeo pueden beneficiarse realmente de la implantación de esta iniciativa y que se constituye como una opción viable para aportar soluciones prácticas para conseguir determinados objetivos lingüísticos. Por todo ello, los capítulos 2 al 6 establecen las condiciones y las recomendaciones para asegurar una implantación correcta en los países de la Unión Europea y otros Estados asociados.

El Capítulo 7 (Recomendaciones) analiza los pasos que deberían tomarse a nivel europeo con relación al alumno, el profesor, y da cuenta de todas las acciones que, en general, deberían involucrar a todos los agentes implicados en cada uno de los países de la Unión Europea.

La segunda de las publicaciones, *Special Educational Needs in Europe: The Teaching & Learning of Languages, (2006) Public Services Contract DG EAC 230303, Brussels: European Commission*, trata la enseñanza de idiomas a alumnos con necesidades especiales. Su objetivo general era proporcionar a la Comisión Europea abundante información práctica y análisis con el objeto de definir la situación actual a nivel europeo. El estudio por tanto se concibió como un medio para aportar datos con vistas al desarrollo de futuras políticas.

Desde 1994 el interés en AICLE ha ido de la mano de los objetivos estratégicos establecidos por la Unión Europea y son objetivos que se han ido desarrollando a través de las distintas iniciativas impulsadas por la Comisión Europea. Así, los cuatro objetivos estratégicos establecidos en 2009 por la Unión Europea en el campo de la educación fueron (European Commission 2009):

- El aprendizaje durante toda la vida y la movilidad.
- La mejora de la calidad y eficiencia de la educación y la formación.
- La promoción de la igualdad y la cohesión social.
- El fomento de la creatividad y la innovación en todos los niveles de la educación.

La mejora de la competencia lingüística se encuentra ligada a los cuatro objetivos. Y cualquier iniciativa educativa apoyada por la Unión Europea, como lo es AICLE, debe utilizarse para mejorar asimismo la promoción de la igualdad entre los ciudadanos.

En algunos estados europeos la población escolar que se considera como alumnado de necesidades educativas especiales es bastante extensa, por ejemplo, en

Islandia llega a ser el 24% del total (OECD, 2004; European Agency for Development in Special Needs Education 2010). Aunque bien es cierto que los números difieren mucho de un país a otro. Sin embargo, si a ello se le añade el número de alumnos con necesidades especiales tales como el uso de la lengua mayoritaria de la escuela para los hijos de inmigrantes, las cifras pueden ser bastante altas. Así, por ejemplo, CIDE informa de que el número de alumnado inmigrante en España se ha multiplicado por diez en los últimos años (CIDE, 2007).

La igualdad de oportunidades requiere que, en lo que a la educación concierne, este tipo de alumnado pueda beneficiarse y acceder a objetivos a largo plazo que busquen mejorar la calidad y la eficiencia de la educación. En muchos casos a este tipo de alumnado se le niega la entrada a los programas de enseñanza de lenguas por ser considerados como demasiado complejos y difíciles (McColl 2005). Y en otras ocasiones la negativa viene dada por la ausencia de profesorado cualificado para llevarla a cabo. En este contexto ha sido necesario llegar a una convergencia entre los intereses y la realidad, y es así por lo que AICLE ha sido elegido como el paradigma educativo que puede ayudar a mejorar el aprendizaje de lenguas para este tipo de alumnado puesto que se trata de una propuesta adaptable que puede ser apropiada para un gran número de alumnos con características distintas, incluyendo aquellos con necesidades fisiológicas, psicológicas o sociales. Lo que resulta particular y beneficioso de los programas AICLE es que parten del reconocimiento de que ciertos alumnos pueden tener problemas significativos en el uso de otra lengua, incluidos los alumnos más dotados (Dinklage 1971), y que solo un cambio sustancial en los enfoques educativos puede ser beneficioso para este tipo de alumnado en particular y para todo los alumnos en general (Brighton 2001).

El interés de la Comisión Europea de centrarse en los alumnos con dificultades de aprendizaje hizo que en lo que se refiere en particular al aprendizaje de lenguas pronto pareció razonable que AICLE podía contribuir sensiblemente a esta tarea. Se comenzó a concur cómo el aprendizaje de lenguas podía contribuir a la mejora del aprendizaje general del alumnado con necesidades especiales de tipo social, sobre todo, y que no existían otras dificultades que las puramente físicas relacionadas con la capacidad de habla y expresión que impidieran que los alumnos se pudieran beneficiar. Como Poor *et al.* (2004) señalan: "Language acquisition theories and practice have proved that the human capacity for learning languages is not limited. Thus it is possible for a second or a third language to be acquired then by people suffering from serious learning difficulties. So, children and young people with special educational needs should be exposed to a number of languages in a pedagogical climate that is both encouraging and enabling".

Por otro lado, existe una gran variedad de categorías relacionadas con los alumnos con necesidades educativas debido a su talento, que puede ser de tipo intelectual y académico, relacionado con la creatividad de pensamiento, las artes visuales y de actuación, y los deportes. Los alumnos que caen en alguna de estas categorías pueden ser calificados como de gran talento en estas áreas, pero sin embargo pueden mostrar deficiencias en otras y por lo tanto están sujetos a la excepcionalidad y la vulnerabilidad. Se estima que entre el 5% y el 10% de la población escolar se encuentra dentro de este grupo (Riley *et al.* 2004).

En general, los alumnos con necesidades especiales pueden llegar en su conjunto al 30% del alumnado en lo que concierne a la enseñanza de lenguas. AICLE les proporciona un nivel de autonomía personal basado en el constructivismo social que

les permite construir el conocimiento sobre la base de la interacción con otros alumnos (Vygotsky, 1978), lo que obviamente resulta particularmente relevante en el mundo de la enseñanza y el aprendizaje de lenguas.

Las actividades lingüísticas basadas en la transmisión de contenidos académicos propias de AICLE constituyen un tipo de innovación educativa que puede llegar a aportar unos resultados notables en contextos con alumnos de necesidades especiales (European Commission 2006). Es evidente que existen varios tipos de alumnos que no se encuentran espacialmente equipados para el aprendizaje de lenguas, por ejemplo los que sufren algún tipo de sordera, pero también lo es que los programas AICLE aporta oportunidades que la enseñanza tradicional no puede ofrecer. En este estudio se pueden encontrar algunos resultados inesperados puesto que las habilidades necesarias para la adquisición de una lengua (atención, escucha, respuesta y comunicación) son esenciales para los alumnos con necesidades especiales. Así, se puede encontrar alumnos que pueden llegar a contar más rápida y correctamente en una segunda lengua que su lengua materna, al igual que hay quien tartamudea pero puede cantar sin dificultad alguna, lo que indica que en los dos casos hay otras partes y funciones cerebrales implicadas (European Commission 2006:50).

AICLE implica la utilización de cierta flexibilidad curricular distinta a los enfoques tradicionales y que resulta obligatoria con este tipo de alumnado. Debido a ello la Comisión Europea enfatiza claramente la interrelación entre la inclusión, los enfoques innovadores para la enseñanza y el aprendizaje con alumnos de necesidades especiales y AICLE (European Commission 2012). De forma inevitable AICLE se ha convertido en un enfoque educativo innovador que encaja perfectamente en los objetivos estratégicos sobre educación para la Europa del 2020 en lo que concierne a la



obligación de ofrecer igualdad de oportunidades a todos los alumnos, en particular un mejor acceso a una educación de calidad, como forma de reducir las desigualdades sociales (Council of the European Commission 2011).

La justificación del estudio viene dada por el hecho de que el aprendizaje de lenguas extranjeras está incluido dentro del currículo obligatorio en todos los países europeos. Sin embargo, la enseñanza de lenguas para alumnos con necesidades especiales varía considerablemente en cada uno de los países. Hasta la fecha, se trata de un área en la que ha habido un porcentaje relativamente pequeño de intercambio de experiencias, tanto a nivel de las políticas educativas como al de la práctica en las clases. Siguiendo las directrices establecidas por el Año Europeo de las Personas con Discapacidades, el principal objetivo de este estudio fue el de recopilar y estudiar los ejemplos de buenas prácticas en lo que concernía a la enseñanza de lenguas para este tipo de alumnado, lo que a su vez proporcionaría una base sólida para la discusión sobre las políticas que deberían ser desarrolladas a este respecto. Dentro de estas directrices se establecía específicamente que había que prestar especial atención a proteger la igualdad de niños y jóvenes en el ámbito de la educación para conseguir una plena integración en la sociedad. Ello obligaba a promover y desarrollar iniciativas de cooperación entre los profesionales de la educación, sobre todo a través del establecimiento de programas especializados de intercambio.

En lo que concierne a las características técnicas de este estudio, contiene una revisión y resumen de literatura científica reciente, materiales relacionados con la enseñanza de lenguas a alumnos con necesidades especiales en la educación obligatoria, análisis de los resultados de las metodologías utilizadas para trabajar con diferentes tipos de habilidades y descripciones de cómo la utilización de métodos y

materiales para enseñar lenguas a este tipo de alumnado se lleva a cabo en Europa. Para ello, se presentaron diez estudios de casos con una alta calidad innovadora procedentes de siete países, junto con una serie de propuestas prácticas para la aplicación de este tipo de enseñanza en países distintos. El objetivo era definir las condiciones para que este tipo de programas pudiera ser transplantado de forma efectiva en otros países del ámbito europeo.

El estudio incluía una revisión de investigaciones relevantes, publicaciones, bases de datos y resultados de grupos de trabajo a nivel europeo, nacional y regional, entre los que destaca *CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential, (2002) European Commission: Public Services Contract DG EAC 3601, Brussels: European Commission*. Su objetivo principal era de carácter lingüístico: estudiar cualquier lengua que se enseña distinta a la lengua materna del alumno, siendo ésta última la lengua de instrucción del contexto educativo analizado. Por ejemplo, el estudio cubría la enseñanza de Alemán a ciudadanos italianos en Italia (enseñanza de una lengua extranjera), la enseñanza de Danés a emigrantes griegos en Dinamarca (enseñanza de una segunda lengua), la enseñanza de Sami en Noruega (enseñanza de una lengua regional o minoritaria) y la enseñanza de Urdu en el Reino Unido (enseñanza de su propia lengua a inmigrantes), ya que en todos estos casos las lenguas objeto de enseñanza no eran las lenguas principales de instrucción en estos contextos educativos. Sin embargo, el estudio no cubría por ejemplo la enseñanza de Español a hablantes nativos de esta lengua.

Al igual que la primera de las publicaciones, este estudio se encontraba ligado a una serie de políticas clave de la Unión Europea, tales como la promoción de la diversidad lingüística, la utilización por los ciudadanos de la Unión de dos lenguas

adicionales a su lengua materna, la mejora de la enseñanza de lenguas extranjeras en general y el aumento de la tasa de éxito en alumnos de idiomas.

En cuanto a su metodología, muestra una combinación entre trabajos de campo y revisión de documentación. Además, se complementó con el establecimiento de una red de colaboraciones a lo largo de todo el ámbito europeo, profesores que fueron invitados a participar proporcionando información de todo tipo, especialmente relacionada con sus prácticas docentes, así como datos producto de investigaciones varias. Finalmente, un pequeño número de investigadores y otros agentes (padres y alumnos) fueron también invitados a participar mediante la provisión de juicios y comentarios que fueron incluidos en el informe final. En cada una de las fases del proyecto los resultados preliminares fueron presentados a la Comisión Europea para su consideración. Se formó asimismo un grupo de trabajo externo para asegurarse de que todos los ámbitos del conocimiento relacionados con la enseñanza de lenguas extranjeras estuvieran representados y, de esta manera, quedase asegurada también la consolidación y la claridad de las propuestas sobre futuros desarrollos de las políticas relacionadas a nivel europeo. Así pues, quedaron representados desde la Agencia Europea para el Desarrollo de la Educación con Necesidades Especiales hasta los diferentes grupos de desarrollo nacional de las políticas sobre enseñanza de lenguas presentes en el Consejo de Europa.

Con el objeto de conseguir que el estudio fuese realmente inclusivo en determinados contextos nacionales, se tomaron una serie de decisiones relacionadas con la base teórica, el propósito y el ámbito de la investigación. Éstas incluían abordar campos relacionados con los desórdenes del habla, desórdenes de tipo cognitivo (incluyendo autismo, síndrome de Asperger u otro tipo de desórdenes semántico-

pragmáticos), desórdenes motores (incluyendo dispraxia, parálisis cerebral), problemas de comportamiento (incluyendo hiperactividad y problemas de atención), discapacidades sensoriales y otras categorías médicas.

La investigación en sí comenzó en un primer lugar con la especificación de las necesidades y recomendaciones sobre buenas prácticas emanadas de la Agencia Europea para el Desarrollo de la Educación con Necesidades Especiales, la Federación Internacional de Profesores de Lenguas Vivas y los grupos de trabajo del Consejo de Europa (40países). Y consistió en la realización de cuestionarios y entrevistas a larga escala, junto con una revisión de buenas prácticas. Asimismo, se realizó una invitación a participar a expertos externos y a expertos que se encontraban colaborando en grupos de trabajo ya existentes. Se realizó también un detallado análisis de fuentes en material bibliográfico escrito y *on-line*.

El análisis combinó los resultados obtenidos junto con los informes de las buenas prácticas en todas las categorías, proporcionando un análisis estadístico de datos que ayudó a modelar la situación en Europa con respecto a las diferentes lenguas. Más tarde se pulió y resumió para ser enviado para su consideración y evaluación a un grupo de expertos, quienes fueron destilando de forma continua una serie de recomendaciones sobre buenas prácticas a nivel nacional y europeo. La consolidación de los datos y la realización del informe final llegó a partir de una revisión completa de la información obtenida y de los informes evaluadores de los expertos, y se tuvieron en cuenta factores clave como los niveles, las lenguas y las regiones antes de su conclusión.

Este informe final ofrece una revisión completa de las distintas políticas educativas, soluciones prácticas para las características específicas de la enseñanza de lenguas para alumnos con necesidades especiales, entre las que se incluye la potencialmente valiosa aportación de AICLE, y ejemplos de buenas prácticas.

El Capítulo 1 ofrece una introducción a los resultados más relevantes de la investigación cuantitativa y una revisión genérica de las perspectivas. El Capítulo 2 contiene una descripción de los tipos más importantes de educación para alumnos con necesidades especiales, de los principios generales que deben seguir unas buenas prácticas docentes, de las lenguas de estudio, así como comentarios procedentes de profesionales de la educación en este ámbito. El Capítulo 3 aporta la identificación de los casos particulares de prácticas adecuadas e innovadoras. Y, finalmente, el Capítulo 5 se centra en ofrecer un abanico de propuestas y recomendaciones para el futuro desarrollo de este tipo de educación.

La tercera de las publicaciones presentadas, *Language Awareness & CLIL*, (2007) *Encyclopedia of Language and Education*, New York Berlin: Springer Science and Business Media es un artículo en el que se revisa la interrelación de dos fenómenos educativos. Su objetivo es introducir los elementos de unión entre los campos del conocimiento lingüístico y AICLE. En cualquier programa AICLE deben existir objetivos lingüísticos (Lyster 2007), aunque deben ser entendidos de diferente forma a lo que normalmente se ha considerado como objetivos lingüísticos. Así, estos alcanzan bastante más allá de la gramática y el léxico fundamental y se encuentran relacionados con las competencias comunicativas (Long y Robinson 1998) y con la correspondiente

conciencia de las competencias interactivas y de la comunicación digital (Howard *et al.* 2007; Klopfer 2008). Los objetivos lingüísticos también deben ser considerados desde una perspectiva más amplia puesto que la propia conciencia de cada uno y de cómo se interactúa con los demás es fundamental para el profesor de idiomas, ya sea en un contexto tradicional o AICLE (Marsh *et al.* 2010; Macbeath 2012). Cuando este artículo fue escrito resultaba llamativo que los expertos en conocimiento lingüístico y los expertos en AICLE apenas colaboraban por lo que uno de sus objetivos fue el de establecer los elementos comunes a su trabajo.

La idea central es posicionar el conocimiento lingüístico como un elemento central en el aprendizaje de lenguas, alejándonos un poco de la consideración de este aprendizaje como objeto de estudio por sí mismo para centrarnos en la comprensión de cómo la lengua es usada en contextos diferentes. Esta idea se fundamenta en el cambio que se produce al pasar del estudio de la forma hacia el estudio del significado (véase, por ejemplo, Long y Robinson 1998) y se centra en analizar cómo las personas pueden aprender lenguas de forma más efectiva y cómo pueden conseguir una mejor comprensión para poder utilizarlas con propósitos comunicativos. Al atraer la atención sobre los patrones del lenguaje que se encuentran en el uso se llegan a desarrollar habilidades propias del pensamiento crítico que son utilizadas por el alumno para desarrollar su propio conocimiento lingüístico (Fairclough 1995).

Este campo de estudio ha sido tradicionalmente considerado de una manera secundaria dentro del estudio general de la enseñanza de lenguas debido a la dificultad para conectar la importancia del conocimiento lingüístico de una forma seria con las teorías y enfoques al uso en el mundo de la enseñanza y aprendizaje de lenguas (Bolitho *et al.* 2003). Sin embargo, se trata de un aspecto al que se le está prestando un

gran interés desde el ámbito del bilingüismo, particularmente en lo que concierne a las neurociencias, con estudios que analizan comparativamente por ejemplo el aprendizaje de las matemáticas por alumnos bilingües y no bilingües con el desarrollo metalingüístico (Bialystock y Codd 1997; Carlisle *et al.* 1999; Haritos 2005); la influencia sobre el procesamiento matemático (Wang *et al.* 2007); la identidad (Oliveira y Anca 2009); la habilidad pragmática y la competencia interaccional (Jessner 1999; Jordá 2005; Ishihara 2007); la conexión con el procesamiento de la lengua materna (Assche *et al.* 2009; Lagrou *et al.* 2011); el cambio de código lingüístico (*code-switching*) (Hernández *et al.* 2001; Clarkson 2007); el aprendizaje de la gramática (Kemp 2007; Foursha-Stevenson y Nicolaidis 2011); el pensamiento divergente (Kharkhurin 2007, 2008); el vocabulario conceptual (Thordardotir 2001); la lectura (Jiménez, García y Pearson 1995; Bialystock, Shenfield y Codd 2000; Miller y Keenan 2011); la competencia estratégica (Moore 2006); y el aprendizaje de lenguas como proceso acumulativo (Flynn, Foley y Vinnitskaya 2004).

Con esta publicación se pretende enfatizar que el conocimiento lingüístico continúa siendo un campo de investigación de gran relevancia no solo para la lingüística sino también para la lingüística aplicada y la educación. Sobre todo en lo que se refiere a la conciencia comunicativa (James y Garret 1998; Thurlow 2001; Dagenais *et al.* 2008); el aprendizaje transversal de la lengua materna y de una segunda lengua (Harris y Grenfell 2004); el conocimiento lingüístico de naturaleza crítica (Fairclough 1992); la lingüística de corpus y exploración de los nexos entre los patrones del lenguaje y sus usos en contexto (Walsh y O'Keefe 2007); la pragmática (Bardovi-Harlig 1996; Yule 1996; Ishihara 2007); el multilingüismo y las competencias plurilingües (Aronin y Singleton 2008; Oliveira y Anca 2009).

El análisis del conocimiento lingüístico ha sido normalmente considerado todo un reto en el campo del bilingüismo y el multilingüismo, sobre todo en relación con el papel que desempeñan los profesores de contenido (Mehisto 2011). En particular, la enseñanza simultánea de lengua y contenidos, su interrelación con el conocimiento lingüístico, y el subsiguiente impacto en la pedagogía necesaria para llevarla a cabo han constituido siempre uno de los elementos más importantes en la trayectoria de AICLE (véase, por ejemplo, Montague 1997; Marsh *et al.* 2010). A partir de los resultados obtenidos por investigaciones recientes sobre la conexión entre el conocimiento lingüístico en contextos AICLE (Dalton-Puffer 2007; Ruiz de Zarobe 2008; Lasagabaster 2009; Lasagabaster y Sierra 2009; Yassin *et al.* 2010; Lorenzo, Casal y Moore 2010; Navés y Victori 2010; Várkuti 2010; Navés 2011; Dalton-Puffer, Nikula y Smit 2011) se puede concluir que este tipo de conocimiento tiene mucho que aportar a los contextos educativos en los que se desarrollan programas bilingües y multilingües.

Finalmente, puesto que AICLE supone en sí misma una propuesta transversal al aunar conocimientos y experiencias de variadas disciplinas, constituye un marco ideal en el que el estudio del conocimiento lingüístico ofrece a su vez un enfoque interdisciplinar en el estudio de las lenguas y la educación. Es difícil a veces intentar capturar esta naturaleza en la investigación debido a la amplitud de conocimiento y de habilidades que deben ser estudiadas, lo que a menudo produce una interpretación sesgada de los estudios específicos que se realizan en los entornos bilingües y multilingües. Sin embargo, como ya ha sido comentado, existe un campo de estudio en el que el conocimiento lingüístico comienza a ser explorado desde una perspectiva puramente científica, el campo de las neurociencias. Así por ejemplo, Bialystock y Barac (2012) realizaron un estudio sobre alumnos inmersos en un programa AICLE en



el que comprobaron que las ventajas que ofrecía el bilingüismo para niños instruidos en las dos lenguas en contextos de inmersión o bilingüismo puro podían también aparecer en un contexto de bilingüismo parcial como el que ofrece AICLE. Llegándose a concluir además que tanto el desarrollo del control no verbal como el conocimiento metalingüístico forman parte de la misma conciencia lingüística. De hecho, el control ejecutivo se encuentra relacionado con el pensamiento dirigido hacia un objetivo y la acción (Bialystock y Viswanathan 2009; Yang, Yang y Lust 2011) y con el conocimiento lingüístico por el que una persona puede gestionar la lengua como un proceso de comprensión de las reglas que controlan la lengua y el uso de la lengua.

Esta publicación, por tanto, se encuentra dirigida a señalar los puntos de encuentro entre campos académicos diversos, intentando posicionar a AICLE como una herramienta para facilitar el desarrollo del conocimiento lingüístico en la educación mediante la referencia a campos científicos como la lingüística, la lingüística aplicada, la neurolingüística y la educación.

La cuarta de estas publicaciones, *The Study of the Contribution of Multilingualism to Creativity (2009), Science Report, European Commission, Public services Contract EACEA/2007/3995/2, Brussels: European Commission*, constituye un meta estudio en el que se examina la contribución del multilingüismo en la creatividad del individuo. Se trata de un estudio que nace a la luz del Año Europeo de la Creatividad 2009 y cuya función principal fue la de aportar evidencias científicas que justificaran esta relación, para que de este modo la Comisión Europea considerara este hecho en una futura toma de decisiones. La iniciativa se inscribe también dentro de las

acciones que para el 2007-2013 estableció el Programa de Aprendizaje Permanente de la Unión Europea, el cual también incluía entre sus objetivos el estudiar y fomentar el aprendizaje de lenguas. Como punto de partida fundamental, se asume que la creatividad es una fuente generadora de nuevas ideas. Así pues, se asume del mismo modo que la creatividad es un componente esencial de los procesos de innovación, y como tal se erige en un factor clave para conseguir la sostenibilidad marcada por las estrategias definidas en el tratado de Lisboa.

Las características principales del estudio respondía a una serie de hipótesis de partida:

- Existe una relación entre el multilingüismo y la creatividad, los cuales se influyen mutuamente de tal forma que el conocimiento de varias lenguas produce un efecto positivo en la creatividad y *vice-versa*.
- El hecho de que el multilingüismo permite al individuo acceder a otras formas de organización del pensamiento y de percepción del mundo, y a obtener fuentes distintas de información, proporciona consecuencias beneficiosas para la habilidad creativa.
- La creatividad mejora a través del uso de varias lenguas (cuanto mayor sea el número, mayor será la creatividad).
- La habilidad creativa se incrementa mediante el aprendizaje de lenguas puesto que la adquisición de nuevos marcos de referencia proporcionados por la nueva lengua proporciona nuevas perspectivas que aumentan el pensamiento creativo.

·El multilingüismo contribuye a descubrir y a crear diferentes y variadas conexiones entre conceptos e ideas y, consecuentemente, influye positivamente en la habilidad creativa.

La investigación incluye evidencias psicológicas, culturales y lingüísticas, entre otras, y toma en consideración los resultados de proyectos ya existentes dentro del 6º Programa de Investigación de la Comisión Europea bajo el título 'Diversidad Lingüística en la Sociedad Basada en el Conocimiento'. Sus resultados se encuadran dentro de un compendio general de la investigación y la literatura científica en la actualidad sobre las relaciones entre multilingüismo y creatividad. El análisis de estas fuentes no solo cubre a todos los países del ámbito europeo sino que se extiende a otros muchos, otorgándole un carácter global y multilingüe.

La metodología de la investigación conllevó la realización de una recogida de datos que utilizó una amplia revisión de fuentes bibliográficas, libros, artículos e informes, en diferentes centros de investigación y universidades. Una gran parte de la investigación se desarrolló mediante el acceso a documentación y una posterior valoración de su idoneidad para el propósito del estudio. Solo el 10% de los documentos examinados se consideraron aptos para su inclusión en la base de datos que después se analizaría. Alrededor de 3.000 publicaciones e informes fueron revisados en esta primera fase de la investigación. Así, solo la investigación de carácter primario fue considerada a lo largo del proceso de investigación. La mayor cantidad de investigación rigurosa y de calidad disponible en publicaciones de relevancia era bastante limitada antes del año 2000, en el que la investigación que surgía de las ciencias cognitivas y neurocognitivas comenzó a ver la luz de forma más numerosa. Ello ha significado que la revisión de la investigación realizada no se ha visto sesgada en

relación con el periodo de publicación y ha permitido el acceso a una considerable cantidad de investigaciones recientes sobre el uso de la mente y el cerebro.

A lo largo del desarrollo de la investigación se establecieron reuniones periódicas para someter los datos agrupados por temáticas a la consideración de expertos procedentes de distintas disciplinas. Durante este proceso, el término creatividad adquirió una dimensión particular, la que concierne a la habilidad para pensar en algo nuevo mediante la expansión de los límites de un concepto ya existente a través de su sintetización con otros conceptos. A partir de ahí, el grueso de los datos iniciales se categorizaron de acuerdo con hallazgos más amplios y que guardaban relación con la flexibilidad cognitiva (la habilidad para emplear un abanico de estrategias para el procesamiento cognitivo en determinados contextos a través de la adaptabilidad y la fluidez de pensamiento), el funcionamiento cognitivo (procesos mentales que conllevan operaciones tales como la percepción, la memoria, la creación de imágenes, el control de los procesos de pensamiento con respecto a distintos aspectos operacionales y fisiológicos del cerebro), la comunicación interpersonal (habilidades sociales -a menudo de carácter metalingüístico y que conllevan algún tipo de conciencia lingüística-, la utilización de una lengua como actividad humana derivada de la capacidad para activar distintos sistemas lingüísticos), e interacciones de carácter innovador (constructos de carácter sinérgico producidos por individuos multilingües trabajando conjuntamente en grupos en los que la interacción promueve la generación de actividades innovadoras).

La estructura del estudio puede verse de forma resumida en la versión que aparece junto con el compendio final y que se muestra como una sucinta comunicación oficial dirigida a los responsables de la toma de decisiones políticas, a las autoridades

educativas y culturales, y al público en general. En ella se describen las áreas claves que deben ser tenidas en cuenta sobre la base de los resultados científicos más recurrentes en la materia.

La quinta y última de las publicaciones, *Content and Language Integrated Learning (2011) Encyclopedia of Applied Linguistics, New York: Wiley*, es un artículo en el que se introduce AICLE a una audiencia interdisciplinar, cuyo propósito es difundir la comprensión de lo que significa AICLE y su potencial educativo a todos los agentes implicados en su puesta en funcionamiento. Se trata pues de un ejemplo de sintetización de las fuentes y las políticas educativas que ha propiciado la emergencia de este enfoque. Como declaración inicial hay que decir que AICLE no persigue únicamente mejorar la enseñanza de idiomas, requiere una organización completa de las enseñanzas y una metodología específica y va más allá de intentar conseguir que los profesores de contenidos transmitan conocimiento a través del uso de una lengua distinta a la materna. En esta publicación se hace referencia a varias ideas fundamentales:

#### *Identificación de los agente implicados*

La Comisión Europea ha promovido activamente la implementación de programas CLIL a través de iniciativas como el Plan para la Promoción del Aprendizaje de Lenguas y la Diversidad Lingüística 2004-2006 (COM (2003) 449 final) en el que enfatiza el potencial de AICLE para contribuir a la consecución de los objetivos lingüísticos de la Unión Europea. De acuerdo con estas directrices, AICLE se describe como un enfoque educativo que ofrece la oportunidad de incrementar la cantidad y la

calidad de exposición debido a su naturaleza dual lengua-contenido y que ofrece asimismo un contexto más natural para el desarrollo de las lenguas. Se concluye que AICLE proporciona al alumnado un contexto de aprendizaje enriquecido independientemente de su procedencia educativa, social o económica: "CLIL can be one of the means of giving all learners, regardless of their educational, social or economic background, the opportunity to strengthen their knowledge of foreign languages, thus maintaining cultural and linguistic diversity and promoting individual plurilingualism" (European Commission 2003). Sin embargo, este tipo de declaraciones deben ser complementadas con un riguroso análisis de los modelos y formas de aplicación de estos programas, objetivo al que aspira esta publicación.

En 2007 la Comisión Europea realizó una amplia consulta sobre el proceso de multilingüismo que se estaba llevando a cabo en la Unión Europea, citándose de forma destacada la contribución de AICLE como enfoque innovador para la mejora de las competencias lingüísticas (European Commission 2007). De hecho, el 44.36% de los encuestados consideraban que AICLE constituía una apuesta exitosa para la promoción del aprendizaje de lenguas y en el informe se enfatizaba la importancia de AICLE conjuntamente con el aumento del contacto con la lengua, el uso de materiales auténticos y la presencia de programas de movilidad e intercambio: "Respondents commenting on their choices mainly reflected on possible ways for encouraging language learning. Suggestions included full immersion into the language by putting the learner into contact with authentic materials and native speakers, the use of CLIL, as well as mobility/exchange programmes (European Commission 2007:9).

*Desarrollo de objetivos educativos basados en la competencias*

La declaración recogida por el Parlamento Europeo en 2006 sobre la necesidad de trabajar competencias clave como elemento fundamental del aprendizaje a lo largo de toda la vida, y en la que se reconocía la importancia del trabajo con competencias en la educación, supuso un paso significativo en el desarrollo de AICLE. En ella se recogía asimismo que los cambios socio-demográficos, los desarrollos científicos, la innovación tecnológica y los nuevos conocimientos y competencias demandados por la sociedad requerían un cambio en las políticas educativas. Se introdujeron ocho competencias: comunicación en la lengua materna; comunicación en lenguas extranjeras; competencias básicas en matemáticas, ciencias y tecnología; competencia digital; aprender a aprender; competencias cívicas y sociales; iniciativa y emprendimiento; y, finalmente, conciencia cultural y expresión. Estas competencias se igualan prácticamente con los objetivos trazados por los programas AICLE en 2001 (Marsh *et al.* 2001), en donde se establecían para los educadores estas competencias de forma similar, enfatizando su carácter interdependiente.

#### *La enseñanza de lenguas a edades tempranas*

El estudio sobre los principios pedagógicos que subyacen a la enseñanza de lenguas en edades tempranas publicado por la Comisión Europea (European Commission 2006) establece que los principios y naturaleza de AICLE casan perfectamente con las sugerencias que desde la Comisión se han venido haciendo sobre la enseñanza temprana de lenguas: "CLIL (Content and Language Integrated Learning) initiatives change the factor of time for learning by making the other language the medium of instruction in modules or subjects of the primary curriculum in general... and that even if the term CLIL is not mentioned in a curriculum, combining the foreign language teaching with other lessons or activities, where appropriate, e.g. short

counting exercises, sports, arts and crafts and music, has been suggested in Early Language Learning (ELL) for many years" (European Commission 2006:93). Asimismo, el document de trabajo elaborado por la Comisión Europea sobre la enseñanza de lenguas en Infantil (European Commission 2011b) enfatiza que AICLE debería desempeñar un appeal relevante en este nivel educativo.

#### *Lenguas regionales y minoritarias*

Ya en el informe de Eurydice sobre la situation de la education en Europa (Eurydice 2004) se reconoce la importancia de la existencia de enfoques basados en la transmisión de conocimiento a través de una segunda lengua: "...schools in which the teaching of certain subjects in the curriculum may be offered in a foreign, regional or minority language have existed in Europe for years... the acronym CLIL started to become the most widely used term for this kind of provision during the 1990s" (Eurodyce 2004:7). Una observación importante al hacer referencia a la existencia de este tipo de programas.

Durante el periodo comprendido entre 2006-2009 el equipo de trabajo sobre lenguas y educación perteneciente al Consejo de Europa produjo una serie de herramientas y recomendaciones sobre las lenguas y la educación, las lenguas como medio de enseñanza y aprendizaje a través del currículo, y el potencial para la convergencia entre las lenguas en un enfoque holístico global que ayude a promover la competencia plurilingüe del ciudadano. Todos ellos aspectos claramente relacionados con la naturaleza de AICLE y que suponen de hecho una continuación de los principios establecidos por este enfoque educativo a comienzos de los 90 (Council of Europe 2009).



### *Educación y tecnología*

Las conexiones entre los dominios educativo, tecnológico y social que se establecen hoy en día invitan a que los sistemas educativos consigan poner en funcionamiento programas eficaces y sostenibles en los que enfatice la colaboración entre el profesorado de disciplinas varias y la integración curricular. Junto con la difusión de los argumentos que apoyan la enseñanza de lenguas de forma integrada, se debe establecer un entendimiento mutuo entre los responsables de las políticas educativas y los responsables del desarrollo de la tecnología aplicada a la educación. El fomento de la convergencia resulta claramente significativo para la contribución de la tecnología, las redes sociales y los sistema de comunicación a la enseñanza de lenguas y en particular a los programas AICLE (Asikainen *et al.* 2010:10).

La transformación de la educación a través de la introducción de la tecnología constituye un aspecto de gran relevancia en áreas específicas del proceso de enseñanza y aprendizaje, como por ejemplo en la aparición de cursos abiertos, de modelos mixtos y para el fomento de la interacción. El aprendizaje *online* favorece el tipo de construcción del conocimiento lingüístico y conceptual que proporciona AICLE, los modelos mixtos permiten diferencias formas diferentes de aprendizaje que son esenciales cuando coexisten en la clase distintas competencias en la lengua de instrucción, el fomento en el uso por parte del alumnado de aplicaciones interactivas como juegos digitales o aplicaciones en los móviles que fomenten situaciones comunicativas, un elemento fundamental en un programa AICLE (Howard-Jones 2011; Klopfer 2008). La tecnología por tanto proporciona una gran cantidad de instrumentos para contribuir al proceso formativo, constituye un elemento de gran importancia para

la transformación de la educación y posibilita la convergencia y la integración que postula AICLE.

### *La exclusión en el aula*

Todos somos conscientes de lo que supone luchar para progresar en la escuela y otros saber bien lo que significa tener que abandonarla. Para muchos niños, la frustración no procede de carencias físicas, intelectuales o económicas, sino que es la decisión de enseñar mediante la utilización de otra lengua que no entienden la causa de sus problemas (Menchu 2009). En su estudio sobre el apego que desempeña la lengua de instrucción en el éxito o el fracaso de los estudiantes, Pinnock (2009) señalaba los problemas de índole incluso político derivados del uso de una lengua que muchos hablantes, particularmente pertenecientes a comunidades identificadas como minoritarias, no pueden comprender: "There is also evidence that excluding linguistic communities from education because they do not understand the language used to teach contributes to political instability and conflict. Teaching through a language which a child does not already know well also fails to give children adequate skills in that language despite being intended to do so" (Pinnock 2009:8). En sus recomendaciones aboga por el establecimiento de acuerdos educativos para impedir esta exclusión: "...establish a policy commitment to improving a school language, based on an intention to progress towards evidence-based good practice" (2009:9). Y en sus conclusiones aboga por el establecimiento de programas educativos que, como AICLE, defienden y preservan el uso de la lengua materna: "It is possible to deliver education in ways which make it easier for children to learn, which make sure that children are able to gain good language skills, and which maintain and develop their first language" (2009:10).

La contribución de AICLE para conseguir disminuir los peligros de la exclusión y la discriminación en la escuela se ha puesto de manifiesto en numerosos estudios que se han realizado en contextos muy diferentes en todo el mundo, como por ejemplo en Brunei (Martin 1999), Burundi (Eisemon *et al.* 1989), Ethiopia (Marsh y Flinck 2003), Eirtrea (Woldemikael 2003), Guatemala (Eng y Chesterfield 1996), Hong Kong (Chan 2002), Kenia (Muthwil 2004), Marruecos (Angrist y Lavy 1997), Mozambique (Benson 200; Marsh 2002), Namibia (Marsh *et al.* 2002; Shikingo 2002) y Sudáfrica (MacDonald 1990; Clegg 200; Bloch 2002).

Es en estos contextos en los que se puede observar cómo diferentes expertos pueden llegar a poner en marcha iniciativas similares, cómo utilizan términos distintos para los mismos problemas y cómo llegan a encontrar soluciones parecidas sin conocer el trabajo de otros con retos similares. Este artículo, en suma constituye un intento de articular la posición de AICLE para futuros lectores inmersos en contextos muy distintos.

## 9. Discusión y conclusiones

La tesis fundamental de este trabajo compilatorio propone que la adopción del modelo educativo denominado Enseñanza Integrada de Contenidos y Lengua (AICLE) a partir de la década de los 90 del siglo anterior supone la adopción de prácticas que resultan apropiadas para la enseñanza dual de contenidos y lengua en contextos educativos, y que, a su vez, supone la puesta en práctica de una serie de medidas pedagógicas prácticas de resultados exitosos en ámbitos educativos interrelacionados.

Capítulo 1 – Publicación 1: la dimensión socio-política.

*CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential, (2002) European Commission: Public Services Contract DG EAC 3601, Brussels: European Commission.*

El término 'Aprendizaje Integrado de Contenidos y Lengua' (AICLE) se adoptó en el seno de la Unión Europea, con el apoyo expreso de la Comisión Europea, para definir una forma específica de propuesta educativa innovadora (Nikula y Marsh 1998). Esta innovación suponía la integración de disciplinas diferentes que durante más de un siglo habían permanecido como entidades separadas dentro de los sistemas educativos, principalmente en forma de asignaturas diferentes en los currículos (Fogarty 1991). A comienzos de la década de los 90 uno de los objetivos imperativos de la política lingüística paneuropea hacía referencia a la necesidad de que cada vez más ciudadanos europeos pudieran comunicarse en dos lenguas adicionales a la lengua maternal (European Commission 1995). Ello provocó que se comenzaran a estudiar posibles alternativas para conseguir mejorar los resultados que proporcionaba la enseñanza de lenguas convencional, como por ejemplo las que se estaban llevando a cabo en Canadá (Turnbull *et al.* 2001).

La Comisión Europea solo podía ofrecer formas varias de apoyo, principalmente en forma de asesoramiento y financiación, pero no tenía poder alguno sobre las políticas de los distintos miembros de la Unión en material educativa. El apoyo se dirigió en un primer momento fundamentalmente hacia la creación de redes de colaboración y hacia el establecimiento de grupos de trabajo más que hacia la investigación. Así, los expertos que trabajaban para la Comisión organizaron una serie de conferencias y establecieron diversas formas de diálogo con expertos a lo largo de toda Europa con el fin de difundir este modelo educativo y comprobar si AICLE podía

contribuir a mejorar los resultados en el aprendizaje de idiomas. Para ello se fomentó el abandono de tradicionales concepciones largamente asentadas en la enseñanza de lenguas hacia formas de colaboración entre profesores de diversas disciplinas, con el objetivo de observar si este modelo de trabajo podría tener un efecto positivo en la calidad de la enseñanza de una lengua. A este respecto, AICLE ofrecía una forma adecuada para alcanzar esta sinergia de diálogo y práctica.

En los 90, debido a las presiones sociales resultantes de los procesos de fusión y globalización, la lengua inglesa se convirtió en la lengua vehicular más utilizada en los modelos que experimentaban con AICLE durante esa época. Este hecho ineludiblemente provocó rechazo por quienes pensaban que la expansión del inglés supondría un menoscabo para el aprendizaje e incluso la supervivencia de otras lenguas (Skuttnab-Kangas 2008). Sin embargo, desde el primer momento se ha venido defendiendo que la adopción de AICLE no tiene por qué limitarse a la adopción del inglés como lengua vehicular del conocimiento (Marsh 1993). Y que el aumento de la preponderancia de esta lengua no tiene por qué limitar el capital valor social de otras lenguas, así como constituir un elemento que ponga en peligro sus competencias (Grin 2003).

Durante esa época existía un problema estructural dentro del seno de la Comisión Europea debido a la existencia de diferentes entidades e instituciones dentro de la organización que eran responsables de las distintas lenguas oficiales, regionales y minoritarias. Ello provocaba que existiera una dañina separación entre expertos y organizaciones que en realidad perseguían objetivos similares, principalmente la búsqueda de un mejor acceso al aprendizaje de lenguas a través de la utilización de técnicas innovadoras que pudieran fácilmente ser asimiladas por los sistemas

educativos. Gradualmente, sin embargo, especialmente en los albores del nuevo siglo, comenzó a existir un mayor diálogo entre estos organismos, lo que ayudó sobremanera a que AICLE asimismo variase su foco de atención, desde únicamente estar centrado en mejorar la enseñanza de lenguas extranjeras a convertirse en un modelo educativo que aspira a ayudar a mejorar la calidad educativa general (de Zarobe 2008). Y, al mismo tiempo, comenzó a tomar en consideración la utilización vehicular de lenguas distintas al inglés, incluyendo la enseñanza de otras lenguas nacionales y regionales a inmigrantes (Anderson, 2008, 2009).

La importancia del apoyo recibido por parte de la Comisión Europea a todas estas iniciativas fue crucial a lo largo de esos primeros años y ya comenzado el nuevo siglo. En la actualidad, una vez que diferentes agentes han comenzado a implicarse directamente en la implementación de programas AICLE, tanto desde el sector privado hasta los niveles regionales y nacionales, en 2012 resulta razonable pensar que la semilla plantada por la Comisión Europea en forma de financiación se verá complementada, tal y como así está siendo, por la presencia de inversiones públicas y privadas y por un creciente apoyo social a estas iniciativas. Así pues, el papel de las lenguas en la educación ha adquirido una posición de gran importancia en los currículos gracias sobre todo a las diversas formas de implantación de lo que supone la integración de lenguas y contenido.

#### Capítulo 2 – Publicación 2: la dimensión inclusiva.

*Special Educational Needs in Europe: The Teaching & Learning of Languages, (2006) Public Services Contract DG EAC 230303, Brussels: European Commission.*

Otro de los objetivos de este trabajo concernía a las lenguas y a la inclusión. La inclusión social ha sido uno de los principales objetivos desde el Tratado de Roma en 1957 y el comienzo de lo que hoy conocemos con la Unión Europea. La inclusión engloba a la integración de alumnos con habilidades distintas y con discapacidades dentro de un sistema regulado de enseñanza, así como el aseguramiento de un acceso igualitario a la educación. Durante algún tiempo se consideraba en ciertos contextos que los niños con necesidades especiales no deberían someterse a las exigencias derivadas del aprendizaje de asignaturas con cierta complejidad, entre las que se encontraban las lenguas extranjeras. A este respecto, los programas AICLE se han revelado como altamente adecuados para alumnos con necesidades educativas especiales, y no solamente útiles para alumnos sin este tipo de necesidades. De hecho, existen considerables similitudes entre las estrategias y técnicas utilizadas por los especialistas en la enseñanza de estos alumnos y las metodologías presentes en AICLE (Siranam y Dahl 2009).

Por ejemplo, en junio de 2011 Finlandia introdujo un sistema de evaluación continua en la que todos los niños recibirían algún tipo de evaluación en determinados momentos a lo largo de de su proceso de aprendizaje (Ley de Educación Básica, 2011). El enfoque era un tanto radical puesto que suponía que una cultura altamente individualizada en lo que a la educación se refiere se enmarcaba no solamente en una infraestructura educativa global, sino que se favorecía la relación hogar-niño-escuela. Ello implicaba que los niños con necesidades especiales debían integrarse con los niños que, por ejemplo necesitarían una atención especial debido a un superior talento o habilidad. Se trataba de un tipo de intervención que obligaba a los padres, a los educadores y a los propios niños a reconocer y valorar las fortalezas y debilidades

individuales, y a comprender que éstas además cambian a lo largo del tiempo. Suponía en suma un tipo de intervención relacionada directamente con la diversidad dentro de una clase, un campo en el que AICLE tiene mucho que ofrecer por encontrarse con situaciones similares, en las que la diferente competencia lingüística de los alumnos supone una verdadera barrera similar a las limitaciones y problemas que se pueden encontrar con alumnos con necesidades especiales a la hora de acceder al conocimiento.

### Capítulo 3 – Publicación 3: la dimensión de la conciencia lingüística

*Language Awareness & CLIL, (2007) Encyclopedia of Language and Education, New York & Berlin: Springer Science and Business Media.*

En la tercera de las aportaciones, el objetivo era abordar la cuestión de la conciencia lingüística y su relación con el modelo AICLE, una cuestión de enorme interés para el campo del aprendizaje de lenguas en general, en particular en lo todo lo que concierne al uso del lenguaje.

Los beneficios de un enfoque educativo que trata el aprendizaje de contenidos académicos y de la lengua de forma integrada vienen dados mayormente porque los alumnos pueden, de esta manera, experimentar un tipo de aprendizaje más rico desde el punto de vista del manejo del significado. Un modelo de aprendizaje que es, en muchos casos, similar a cómo se produce el desarrollo de la primera lengua. Ello les proporciona una oportunidad de evitar un aprendizaje compartimentalizado de la lengua, con muy poca relación con los contenidos de corte académico que también se encuentran aprendiendo. Asimismo, les permite a los alumnos construir un tipo de conocimiento más significativo al relacionar el aprendizaje de la lengua con el



conocimiento que han adquirido previamente dentro y fuera del aula. Por otro lado, los alumnos aprenden a trabajar de forma colaborativa, ofreciéndoles la oportunidad de utilizar la lengua en procesos de pensamiento superiores a los que proporciona la enseñanza de lenguas convencional y también los obliga a desarrollar su conciencia lingüística a través de las experiencias en el uso de la lengua que se presentan en el aula. No obstante, también hay que señalar que existen factores de distorsión que pueden llegar a perjudicar estos procesos y que se encuentran relacionados principalmente con la falta de un tiempo mínimo necesario para que se desarrollen, con la falta de adecuación del currículo (incluyendo la capacitación lingüística del profesorado y la competencia lingüística de los alumnos) y con ciertos desajustes que se pueden presentar a la hora de organizar la enseñanza AICLE. Factores que pueden llegar a impedir que incluso los mejores profesores lleguen a fomentar el desarrollo de la competencia lingüística de sus alumnos en profundidad. Sin embargo, a pesar de estas posibles dificultades, AICLE se convierte en una plataforma ideal para hacer crecer la conciencia lingüística de los alumnos y para apoyar el aprendizaje de lenguas en general, fundamentalmente debido a su naturaleza integrada y a las prácticas metodológicas que aporta.

#### Capítulo 4 – Publicación 4: la dimensión educativa de la neurociencia.

*Study of the Contribution of Multilingualism to Creativity (2009) European Commission, Public Services Contract EACEA/2007/3995/2, Brussels: European Commission.*

El cuarto de los objetivos se centraba en indagar en la relación entre el funcionamiento de la mente y el cerebro con la educación y el aprendizaje de lenguas, sobre la base de

que el conocimiento de más de una lengua pone en funcionamiento un potencial que se encuentra íntimamente ligado a los procesos mentales. Los indicadores obtenidos avalan que la influencia en estos procesos es más positiva que negativa. De forma más particular, AICLE aporta un medio adicional y complementario para crear nuevas oportunidades de aprendizaje de una lengua y se encuentra directamente conectado con la emergente investigación sobre el funcionamiento de la mente y su relación con la educación.

Hemos entrado en una era en la que los procedimientos no invasivos nos permiten indagar en los procesos mentales a una escala nunca experimentada antes en la historia de la humanidad. Y ello se produce en un momento en el que el fomento en la educación de las habilidades y competencias humanas se consideran un factor primordial para el éxito social y económico en la sociedad del conocimiento. La importancia otorgada a la aparición de nuevas y alternativas formas de aprendizaje, en particular las que combinan la enseñanza de contenidos y lengua de forma integrada, ha producido que la puesta en práctica de técnicas innovadoras para apoyar el desarrollo lingüístico se abra un hueco en los currículos. Sobre todo porque se trata de programas que proponen una transformación gradual y que, por ello encajan perfectamente en la políticas educativas, a menudo reacias a efectuar cambios demasiado rápidos. La investigación ha demostrado que al equipar a los profesores con el conocimiento y las habilidades apropiadas para proponer este tipo de enseñanza de carácter integrado, se facilita el acceso de los alumnos a contextos de aprendizaje más ricos y variados y, por lo tanto, se contribuye a mejorar los resultados lingüísticos. Las investigaciones sobre los procesos mentales y su relación con el desarrollo lingüístico

están abriendo un amplio campo de estudio en el que el multilingüismo y los programas AICLE tienen mucho que aportar.

#### Capítulo 5 – Publicación 5: reflexión sobre la trayectoria de AICLE

Content and Language Integrated Learning (2011) Encyclopedia of Applied Linguistics, New York: Wiley

El principal objetivo de esta publicación era y es aportar una reflexión sobre la esencia de AICLE, sobre sus orígenes, sus características, sus beneficios y su potencial como motor de cambio en el mundo de la enseñanza de lenguas y en el de la educación en general.

En los primeros años de la década de los 90 del anterior siglo, se inició la andadura de AICLE en Europa con el apoyo financiero y estratégico de la Comisión Europea y con la ayuda de la visión y la experiencia por parte de un grupo de expertos a lo largo de toda la Unión Europea. Ya en el año 2012 se puede decir que esta trayectoria se encuentra entrelazada con cuatro campos de gran importancia para la educación en general y para la enseñanza de lenguas en particular:

- La transformación de sistemas educativos.
- La equidad y la inclusión.
- La investigación sobre los procesos mentales.
- El aprendizaje en contextos enriquecidos.

Incluso en el caso en el que se produzca una evolución en lo que comprende la enseñanza integrada de contenidos y lengua debido a la más que probable emergencia

de movimientos y propuestas innovadoras, el reconocimiento de que el aprendizaje de contenidos académicos a través de una lengua distinta a la materna desarrolla la competencia lingüística y de que la mejora en la competencia lingüística facilita el aprendizaje, permanecerá inalterado. El mayor de los argumentos en este sentido viene de la mano de los resultados de los programas AICLE en el seno de la Unión Europea y en otros países. Siempre existirá la necesidad, además, de promover la transformación educativa, de revisar el tratamiento de las competencias en los currículos, de aumentar los estándares de calidad, de fomentar la equidad y la inclusión, de comprender el impacto del aprendizaje de las lenguas en los procesos cognitivos y neuronales, y de proporcionar a generaciones de alumnos la posibilidad de verse expuestos a contextos enriquecidos de aprendizaje desde edades tempranas. Por todo ello, parece plausible que los programas AICLE todavía tienen bastante que aportar al desarrollo de la educación.

#### **10. Relevancia de los resultados e implicaciones para las políticas educativas**

En los años 80 solo existían unos cuantos países en los que se conocían los principios de la enseñanza integrada de contenidos y lengua y en los que este tipo de enseñanza se daba únicamente en escuelas de corte elitista como resultado de la perpetuación de una tradición largamente establecida. Hoy en día, sin embargo, se puede decir que salvo algunas excepciones se están trabajando con diversos modelos de AICLE en la casi totalidad de los países de la Unión Europea (Wolff 2007). Hoy en día, en 2012, se pueden encontrar alrededor de 4.5 millones de resultados relacionados con AICLE como indicativo de hasta qué punto se ha venido consolidando.

Entre los primeros años de los 90 hasta el 2012 la trayectoria de su desarrollo ha sido compleja. Estas publicaciones no son más que una pequeña contribución a este desarrollo, que excede los límites de la propia educación. Los resultados y datos provenientes de este trabajo en forma de actividades, informes, investigaciones, recopilaciones y reflexiones se encuentran ligados, por supuesto, a la educación entendida como uno de los motores del crecimiento de un país en la medida de que la mejora en la educación produce un cambio sustancial en la competitividad económica y en ámbitos cruciales como la estabilidad y el bienestar social: 'A population of well-educated citizens increases national economic competitiveness. It also results in intangible benefits, such as political stability, social well-being, and a more innovative approach to solving problems' (Moujaes 2012:2). Asimismo, la eficiencia con la que la educación trata la integración y la inclusión de jóvenes con diferentes habilidades y con necesidades especiales, y los resultados del impacto que la enseñanza y el aprendizaje de lenguas sobre la propia sociedad, constituyen aspectos a los que se les ha prestado gran interés a lo largo de esta tesis dado que contribuyen grandemente a construir sociedades de ciudadanos bien educados y preparados.

El informe sobre la dimensión europea de AICLE (*The European Commission report on CLIL (CLIL/EMILE – The European Dimension: Actions, Trends & Foresight Potential)*) se elaboró para la Comisión Europea en el marco del Año Europeo de las Lenguas 2001 (EYL). El informe fue presentado formalmente en la conferencia que significó el lanzamiento de este año europeo de las lenguas, celebrada en Lund (Suecia) entre el 18 y el 20 de febrero de 2001. A partir de ahí se sucedieron en años posteriores una gran cantidad de reuniones y encuentros en los que se trabajaron los diversos aspectos puestos de manifiesto en el informe. Así, en estos diferentes eventos

se fueron tratando las distintas dimensiones y resultados tratados como parte de una estrategia de difusión de sus resultados. Además, muchos otros eventos tuvieron lugar, durante este periodo principalmente en forma de proyectos, tal y como se documenta en el Capítulo 1 de esta tesis. Por ejemplo, durante el periodo 2001-2002 tuvieron lugar:

- Encuentro con redes profesionales en activo: European Language Council European Year of Languages 2001 Conference, Germany. (28-30.6.01).
- Eventos de carácter regional: Lingua 2000, Lombardy, Italy (26-27.3.01).
- Eventos nacionales: Leonardo European Year of Languages 2001 Symposium, Finland (27-28.9.01).
- Organizaciones europeas: Integrating Vocational Practices and Language Learning in the Context of the Bruges Process, CEDEFOP, Brussels (28-29.11.02).

Pero no fue hasta 2005, una vez concluida la difusión de las conclusiones presentadas en este informe, cuando se prestó una atención especial a sus propuestas por parte de la Presidencia de la Unión Europea (*European Union Presidency Educational Conference, Luxembourg, 09-10.03.05*). Ello significó el punto de partida del inicio de las recomendaciones por parte de la Unión Europea de que AICLE debería ser puesto en práctica en la educación reglada de todos los estados miembros de la UE. Ello queda documentado en el Capítulo 1 no solo con respecto a los eventos y a las decisiones formales dentro de la UE sino también con relación a los planes estratégicos sobre lenguas y educación para el periodo 2004-2006 (*European Commission Action*

*Plan for Languages in Education: Promoting Language Learning and Linguistic Diversity*).

El informe sobre necesidades especiales y educación (*Special Educational Needs in Europe: The Teaching & Learning of Languages*) fue elaborado en consonancia con el Año Europeo de las Personas con Discapacidades en 2003. Dentro de su propósito principal, cual era el de desarrollar una agenda política para conseguir la integración de personas con discapacidades, el informe se centró asimismo en analizar las oportunidades para aprender lenguas extranjeras que se le ofrecían a este segmento de la población en comparación con las oportunidades de las que disfrutaban los alumnos en la educación reglada.

A partir de este punto, se organizaron diversas actividades como parte de la estrategia de difusión de la totalidad o parte de las conclusiones del estudio, por ejemplo:

- Theory and Methods, FSDEK II MA Development Programme, University of Pristiina, Kosovo 16-20.09.06.
- Inclusion of Special Needs Learners into Mainstream Education, Ministry of Education, Murmansk, Russia 08-10.02.06.
- Inclusion, Murmansk Region Educational Authority, Russia 12-13.04.06.
- The Murmansk Region Inclusive Education Initiative: Assuring Sustainability. International Scientific & Practice Conference, Murmansk Region Education Authority, Russia 11.04.07.

·Integration of Pre-school and Primary School-aged Children with Special Needs into Mainstream Schools in the Murmansk Region, Murmansk Regional Education Authority, Russia 11-12.10.06.

·Language Learners with Special Needs, Chair, Early Language Learning conference, European Commission, Brussels, Belgium 24-25.09.09.

Para finalizar, el informe sobre multilingüismo y creatividad se elaboró en consonancia con el Año Europeo de la Creatividad y la Innovación en 2006, y sus conclusiones dieron luz a la organización de varios eventos y actividades, entre los que se incluyeron:

·The Added Value of Learning Languages: Insights from Research Implications for Lifelong Learning. CIMO, Helsinki, Finland 25.03.10.

·What do the educational neurosciences reveal about CLIL? 4<sup>th</sup> National CLIL Conference, European Platform, Ede. The Netherlands 02.03.10 .

·Languages in Education & The Brain: Towards a Gender Equalizer. Gender Differences in Educational Achievement. Swedish EU Presidency Conference, Uppsala, Sweden 16-18.11.09.

·The Added Value of Multilingualism, Integration Foundation symposium, Tallinn, Estonia 25.08.09.

·Creativity and Multilingualism. European Commission 2009 Languages in Education Conference, Tallinn, Estonia 17.04.09.



## 11. Limitaciones de la tesis y de las publicaciones que se incluyen

Este trabajo aborda el desarrollo de la trayectoria de una propuesta educativa definida que propugna la enseñanza dual de contenidos y lengua de forma integrada como medio para conseguir aumentar la calidad de la educación, en primer lugar en lo que concierne a las propias lenguas, pero también en lo que afecta a la asimilación de contenidos académicos. Las publicaciones que se incluyen, y la tesis como producto global, no cubren algunos aspectos específicos de AICLE. Así, por ejemplo, no se han tratado aspectos particulares como la cuantificación de experiencias prácticas, resultados de aprendizaje, trabajo con distintas lenguas, niveles educativos y tipos de centros, la evaluación, u otros factores operativos de indudable importancia, pero que por sí mismos darían, y de hecho dan lugar, a investigaciones diferentes.

En 2002, a partir de la publicación del informe sobre la dimensión europea de AICLE (Capítulo 1), la Comisión Europea aconsejó a todos los países de la UE establecer los mecanismos para la implementación de programas AICLE y, al mismo tiempo, para desarrollar instrumentos para evaluar su puesta en funcionamiento. A partir de ahí, Eurydice elaboró un estudio sobre el periodo 2004-2006 en el que las agencias nacionales informaron de la situación de AICLE en los sistemas educativos de sus respectivos países (*Content and Language Integrated Learning –CLIL- at School in Europe, 2006. Eurydice: European Commission*). Como continuación a este informe, durante el periodo 2010-2012, Eurydice se encuentra elaborando un estudio actualizado de similares características que verá la luz a principios de 2013. A modo de comparación, la trayectoria general de AICLE descrita en esta tesis proporciona una gran cantidad de datos de naturaleza cualitativa sobre los orígenes y desarrollo de

AICLE, pero no ofrece el tipo de evaluación cuantitativa que aporta el estudio de Eurydice.

Uno de los elementos más importantes que se encuentra en el mismo centro de la efectividad de cualquier práctica educativa son los centros y los alumnos que se ven sometidos a ellas. Durante las dos últimas décadas ha existido una gran actividad reconocida con relación a la inclusión de alumnos con necesidades especiales en la enseñanza reglada. La segunda de las publicaciones compiladas en esta tesis (Capítulo 2) recoge gran cantidad de datos sobre las necesidades, sobre todo lingüísticas, de este tipo de alumnado, realizando un recorrido por las diferentes publicaciones de la Agencia Europea para la Educación con Necesidades Especiales, pero no se centra en cuantificar los niveles de aprendizaje de lengua que pudieran haber conseguido estos alumnos. Es en el marco de esta descripción de las posibles aplicaciones, acciones e iniciativas, donde se identifica el potencial específico de AICLE.

Por su parte, la publicación sobre la relación entre el fomento de la conciencia lingüística y AICLE (Capítulo 3) examina de forma discursiva la relación directa que se establece en el aula AICLE entre el trabajo integrado de alumnos y profesores y la consolidación de una conciencia lingüística que resulta primordial para el aprendizaje de una lengua. Siendo su objetivo establecer cómo se produce la ligazón entre dos campos profesionales (contenidos y lengua) que a través del trabajo conjunto persiguen una mejora en sus estándares de calidad. Sin embargo, no se adentra en estudiar ejemplos prácticos de actividades lingüísticas.

El estudio sobre la contribución del multilingüismo a la creatividad (Capítulo 4) se presenta como una revisión y ejercicio de análisis sobre la investigación de la

influencia de las lenguas en el funcionamiento neuronal y cerebral en su conjunto, pero no proporciona evidencias concluyentes propias sobre estos procesos. Existe una gran complejidad a la hora de realizar investigaciones de carácter neurolingüístico para valorar la validez de la implementación de un determinado programa educativo. Sobre todo debido a la gran cantidad de variables que deben ser controladas, resulta muy difícil establecer resultados concluyentes, por lo que el estudio se ha centrado en identificar esas variables y los indicadores que, en contextos educativos en los que se ayuda a acceder al multilingüismo, pueden llegar a influir en los procesos cognitivos.

Para finalizar, la última de las publicaciones (Capítulo 5), realiza un recorrido actualizado por los logros y el alcance de AICLE desde una perspectiva enciclopédica. En él no se aportan datos sobre los programas AICLE en Europa o en el mundo, como tampoco se centra en resumir los resultados de estudios individuales sobre los resultados de la implementación de AICLE.

Puesto que supone un esfuerzo por describir una trayectoria, la tesis no proporciona una cuantificación de los resultados de AICLE en los distintos países en los que se lleva a cabo. La información a escala de las actividades realizadas por distintos países y regiones ha quedado fuera del objetivo de este trabajo puesto que se han visto revisados y analizados por los estudios auspiciados por Eurydice. La tesis se centra en describir los resultados obtenidos por la investigación desde campos interdisciplinarios y recorre las decisiones que han dado lugar a que AICLE se haya consolidado a lo largo de esta trayectoria, pero no realiza un análisis de investigaciones provenientes de estos ámbitos. En ella se identifican y se interpretan las claves que deben ser consideradas a la hora de evaluar y generalizar los datos aportados por las investigaciones en esos campos.

Finalmente, debe decirse que los informes y publicaciones aportados fueron elaborados con propósitos diferentes en un momento dado a lo largo del periodo 2001-2012, pero que sin embargo aseguran la coherencia con el tema fundamental de este trabajo. En el caso de que cualquier lector pudiera observar en principio estas diferencias en sus objetivos y especificaciones, solo queda decir que los tres informes elaborados para la Comisión Europea tenían como objetivo analizar un tema específico y elaborar una conclusiones para ayudar en la toma de decisiones políticas y estratégicas a nivel regional y nacional por parte de las autoridades educativas y por todos los agentes implicados. Por su parte, las dos publicaciones de carácter enciclopédico se realizaron con el objeto de proporcionar al lector no especialista una detallada descripción de este modelo educativo.

## **12. Líneas futuras de investigación**

En el campo de la investigación sobre AICLE se asume que las líneas futuras de investigación vendrán determinadas por factores de tipo proactivo y reactivo. Los factores de tipo proactivo con toda seguridad conllevarán dirigir la atención a las tecnologías de la educación, particularmente en relación con las aportaciones de la neurociencia y con la aparición de nuevas formas de alfabetización; también hacia los beneficios en muy diversos ámbitos de la implantación de programas AICLE (afectivos, psico-sociales, rendimiento académico (lingüístico y no lingüístico), aumento de la colaboración entre el profesorado, etc.); y en general a estudiar cómo se pueden desarrollar contextos de enseñanza enriquecidos a través de este tipo de programas. Los factores de tipo reactivo se centrarán en definir las decisiones políticas y

estratégicas que permitirán el diseño e implementación de programas AICLE exitosos; en el efecto sobre los programas de inclusión de alumnos con necesidades especiales, incluyendo aquellos que muestren deficiencias en el dominio de lenguas nacionales y regionales; en el mantenimiento y la sostenibilidad de programas educativos de calidad en periodos problemáticos a nivel social o económico; y en definir los cambios que deben producirse en la educación universitaria a la luz de los éxitos de los programas AICLE con el fin de aumentar la competitividad del alumnado y de atraer a un cierto tipo de alumnos internacionales.

Las tecnologías integradoras y los currículos integradores están siendo utilizados cada vez más como un medio para mejorar los estándares de calidad en la educación, por lo que están influyendo cada vez más también en el diseño de las políticas educativas. La investigación sobre cómo las nuevas tecnologías se pueden ver utilizadas para mejorar la puesta en práctica de una enseñanza de contenidos y lengua estará con toda seguridad localizada en estudiar el funcionamiento de las clases digitalizadas, la conectividad de los sistemas, los cambios metodológicos en la labor del profesor, el cambio de papel también para el alumno a través del fomento de su autonomía, el trabajo colaborativo y coordinado entre el profesorado, y el uso adecuado de recursos fuera de las aulas.

La inmigración y la diversidad de los alumnos en los centros puede significar también que los sistemas educativos tradicionales tengan que responder a un alto grado de heterogeneidad en lo que concierne a las habilidades lingüísticas del alumnado en la lengua de instrucción. La investigación sobre cómo AICLE puede proporcionar una inestimable ayuda para este tipo de necesidades, junto a la inherente que ya se deriva de su uso en lo concerniente al aprendizaje de lenguas extranjeras,

está adquiriendo cada vez mayor importancia. Ello también es aplicable a la enseñanza de alumnos con necesidades especiales en lenguas nacionales, regionales o adicionales. En un periodo de inestabilidad económica y financiera como el que nos ha tocado vivir en la Unión Europea, será necesario realizar una estimación exacta de los costes y la efectividad de modelos de enseñanza, y en particular los que, como AICLE, propone una articulación de la enseñanza más asequible en términos económicos que los modelos tradicionales. Asimismo, dado que las instituciones universitarias también buscan mejorar la competitividad de sus alumnos y atraer a estudiantes de otros países a través de la impartición de Titulaciones en las que parte de ellas o su totalidad se imparten utilizando una lengua extranjera, la investigación sobre cómo es posible organizar y poner en marcha tales estudios, así como evaluar su éxito, se convertirá en una tarea absolutamente necesaria.

Por todas estas razones, junto con el cambio socio-demográfico, los cambios en la consideración de competencias profesionales, el fenómeno de la interculturalidad, la globalización o las expectativas de nuevos conocimientos, por mencionar algunas, se abre un amplio abanico de posibilidades para investigar relacionadas directamente con la implementación de programas AICLE. A todas ellas ya se les está prestando atención por la Comisión Europea a través de un informe sobre la potencialidad de las iniciativas educativas para el periodo 2010-2020 (*Talking the Future 2010-2020 CCN Foresight Report – Aiskainen et al. 2010*), en el que se van a evaluar las iniciativas encaminadas a difundir buenas prácticas en lo relativo a la enseñanza de lenguas, propias y extranjeras; el desarrollo de nuevas formas de integrar la evaluación formativa con los recursos de enseñanza y aprendizaje derivados de las plataformas digitales; la comprensión de la relación e influencia entre el conocimiento de diferentes lenguas y

la mente y el cerebro, así como en el bienestar general del individuo; los enfoques encaminados a mejorar la enseñanza de lenguas en edades tempranas; y las medidas encaminadas a mejorar el conocimiento de lenguas y las habilidades para su utilización como medio de instrucción por parte del profesorado.

Finalmente, la investigación a gran escala sobre los resultados de los programas AICLE deberán continuar después de la publicación del informe de Eurydice en 2013 sobre las actividades realizadas en la Unión Europea. Y deberá dirigir su atención al proceso de selección de las materias, las lenguas utilizadas, los niveles educativos en los que se implementen estos programas, el tiempo dedicado al aprendizaje integrado, la utilización de plataformas digitales, los resultados académicos, la cualificación del profesorado, los requisitos de entrada del alumnado y la evaluación general de los centros. Para poder llevar a cabo las investigaciones sobre estos temas se deberá contar con disciplinas procedentes de las ciencias educativas, las neurociencias, la lingüística aplicada y de otro tipo de ámbitos académicos como por ejemplo las matemáticas y las ciencias en general.

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