

**Fomento de la educación intercultural y la inclusión de estudiantes SEND a través de UDL en las aulas
generales de educación secundaria griega.**

**Fostering intercultural education and inclusion of SEND students through UDL in the general
classrooms of Greek Secondary Education.**

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TITULO: *Fostering intercultural education and inclusion of SEND students through UDL in the general classrooms of Greek Secondary Education*

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INFORME RAZONADO DEL/DE LOS DIRECTOR/ES DE LA TESIS

(se hará mención a la evolución y desarrollo de la tesis, así como a trabajos y publicaciones derivados de la misma).

La tesis reúne todos los requisitos científicos para su aprobación. Enhorabuena en la presentación y formato. Desde mi punto de vista tiene la máxima calificación.

La revisión de la literatura es apropiada y de gran interés para la transferencia del conocimiento, el acercamiento entre empresa, universidad y formación. El talento de las organizaciones laborales.

El diseño de investigación es adecuado y coherente, en ese sentido son pertinentes, la formulación de problemas y el establecimiento de hipótesis de investigación. La muestra es coherente y apropiada. Integra muy bien los modelos mixtos. Análisis de datos cuantitativos y cualitativos. En este sentido, los resultados obtenidos entendemos que son el inicio de una gran explotación de análisis y correlaciones que se pueden obtener para las investigaciones que tengan la misma temática. Las conclusiones y propuestas de mejora son muy importantes para el desarrollo económico y social de país. En estos momentos el gobierno está tomando medidas en la dirección que propone esta investigación. La trayectoria de la doctoranda avala el trabajo presentado. Es una tesis de madurez, en la interrelación entre el curriculum de la doctoranda y el tema elegido.

Por todo ello, se autoriza la presentación de la tesis doctoral.

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ABSTRACT

Abstract

Since intercultural and inclusive education are a key goal of the Greek educational system, we wanted to investigate whether a specific method, that of universal design for learning, can be applied in the Greek system promoting intercultural and inclusive education respectively. The results of the survey are listed in this thesis as well as the entire research procedure, the research methods and tools used, the research analysis and the sample too.

In particular, the methodological triangulation was used and as tools respectively those of the interview, the reflective diary and the questionnaire. The survey was conducted during the time period from 01/03/21 to 30/06/21 and the control group was teachers of secondary education (of general education, special education and Second Chance Schools) a total of 256 in number. The analysis of the data showed that the Greek teachers of the sample do not know and consequently do not apply UDL to a large percentage due to a series of factors such as inadequate training, inappropriate analytical study programs and lack of media/infrastructure in schools. However, from the percentage of teachers who apply UDL or has applied it for the needs of our research (reflection diary) we received positive feedback and regarding the main question whether UDL promotes intercultural and inclusive education we concluded that this is feasible in the contest of UDL probably since UDL embraces differentiation and is based on a variety of educational principals, tools and techniques. Summarizing, even though the research sample is positively inclined towards UDL and in general the current circumstances require an inclusive

educational system, the conditions in Greek educational affairs are not fertile enough for a universal implementation of UDL.

Keywords: inclusive education, intercultural education, secondary education, universal design for learning

Abstract

Dado que la educación intercultural e inclusiva es un objetivo clave del sistema educativo griego, queríamos investigar si se puede aplicar un método específico, el del diseño universal para el aprendizaje, en el sistema griego que promueve la educación intercultural e inclusiva, respectivamente. Los resultados de la encuesta se enumeran en esta tesis, así como todo el procedimiento de investigación, los métodos y herramientas de investigación utilizados, el análisis de la investigación y la muestra también.

En particular se utilizó la triangulación metodológica y como herramientas respectivamente las de la entrevista, el diario reflexivo y el cuestionario. de educación secundaria (de educación general, educación especial y Escuelas de Segunda Oportunidad) un total de 256 en número. El análisis de los datos mostró que los profesores de griego de la muestra no saben y, en consecuencia, no aplican el UDL en un gran porcentaje debido a una serie de factores como una formación inadecuada, programas de estudio analítico inadecuados y falta de medios/infraestructura en las escuelas. Sin embargo, del porcentaje de docentes que aplica UDL o lo ha aplicado para las necesidades de nuestra investigación (diario de reflexión) recibimos una respuesta positiva y con respecto a la pregunta principal si UDL promueve la educación intercultural e inclusiva, concluimos que esto es factible en el concurso de UDL probablemente se deba al hecho de que UDL adopta la diferenciación y se basa en una variedad de principios, herramientas y técnicas educativas. En resumen, a pesar de que la muestra de investigación se inclina positivamente hacia el UDL y, en general, las circunstancias actuales requieren un sistema educativo

inclusivo, las condiciones en los asuntos educativos griegos no son lo suficientemente fértiles para una implementación universal del UDL.

Palabras clave: educación inclusiva, educación intercultural, educación secundaria, diseño universal para el aprendizaje

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Finally, many thanks to my students who have been a real inspiration for me to seek a continuous improvement as an educator, new pedagogical methods and practices and at last but not least to become the teacher I am today.

DEDICATION

To my students who made me want to become a better teacher, a better person.

“Defend the child,

because if the child is saved

there's hope”

Papadopoulos, L.

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CHAPTER 1: INTRODUCTION

Introduction to the topic of the study

This dissertation inquires whether Universal Design for Learning (UDL) fosters intercultural education and inclusive education for students with special educational needs/disabilities (SEND students) in Greek secondary schools according teachers' perceptions. It is by extension an attempt to investigate whether there are favorable circumstances and space in the educational system of Greece for a new pedagogical mentality structured on the principles of equality, democracy and justice.

The educational reality in Greece is consisted on the one hand of the presence of a large heterogeneity as far as the student population is concerned. Classes are mixed in any educational level due to differences in social-financial status, national identity, tribe, gender, capacity spectrum, learning profile and school performance. On the other hand of the fact that there is obvious an attempt to displace the traditional ineffective teaching model from the application of new pedagogical philosophies and practices that represent as a priority the student, each student and his right to equal education, a priority in accordance with every government's announcements and schedules of substantial reforms in this direction.

Greece, as a host country for large migratory and refugee flows in recent decades, it is logical that it has been shaped respectively in demographic as well as in socio-economic and cultural level. School as a miniature of the wider society could not but be differentiated accordingly. The student population now includes students of different nationalities and cultural characteristics and this demographic "inclusion" leads causally to the demand for educational "inclusion" of foreign students in the Greek school through the cultivation of interculturalism within and outside the school context.

Respectively and causally there is a requirement for the Greek educational system to include each child regardless of differentiating characteristics from the majority. The tendency for an inclusive education system is dominant in Greece as well as at an international level after the Salamanca

Declaration (UNESCO, 1994), which is based on the acceptance of the right of every child to education and the recognition of the existence of unique characteristics and needs that should be considered in the design and construction of educational systems. Subsequently, the co-education of students with and without special educational needs/ disabilities comes to the fore highlighting the differences not as a deficit but as an opportunity to enrich the educational process and becoming an indicator itself of the level of respect for human rights. For many countries, among them and Greece, inclusive education is not only a social imperative but also a political issue. A political issue on which Greece is committed, regarding the rights of individuals with special educational needs/disabilities by receiving systematic funding from E.E. community funds through the Partnership Agreement for the Development Framework (PA) 2014-2020 in order to implement the inclusive education policy (<https://www.espa.gr/en/Pages/staticPartnershipAgreement.aspx>).

Nowadays, intercultural, and inclusive education is a matter of social politics also in Greece. The immense differentiation of pupils' population both from a cultural (immigrants, refugees) and educational (pupils with learning difficulties/disabilities) point of view makes it necessary more than ever to replace the established traditional teaching in every educational level and subject by a model of education that fits to all pupils, includes them in the general social life and can be applied in every educational level from preschool to Adult Education. UDL is an educational philosophy that can support intercultural education, inclusion, participation, and progress for all pupils (King-Sears, 2009; Meo, 2012).

So, the current conditions in Greece, according to the new educational data, require the adoption of the principles of intercultural and inclusive education. Subsequently, having recognized the "what" (intercultural education, inclusive education) needs the Greek education system and the "why" (heterogeneity, respect for human rights and values), it remains to explore the "how" this educational need will be met, one "how" that we will look for in the philosophy of UDL.

Purpose and significance of the Study

As nowadays intercultural and inclusive education are a matter of policy for Greece as well, a main pillar and strategic goal of the government program for education (EURYDIKI, 2020), through this research the promotion of Universal Design for Learning is attempted as the appropriate educational framework to promote them (King-Sears, 2009). Despite the aforementioned strategic goal and the fact that already from the year 2008 in the law on special education (Law 3699/2008, article 2.5d) there is an explicit reference to the obligation to implement UDL in order to ensure accessibility in education for all as well equality of educational opportunities, the reality is far from the relevant declarations and the corresponding legal framework. Through this research, the aim is to investigate whether the scientific claim about the promotion of intercultural and inclusive education in the Greek data is really valid.

The inquiry was chosen to cover general secondary education, which includes structures such as Integration Departments and Reception Classes, and general formal adult education (SCSs) as provides a degree equivalent to that of lower secondary education. There was noticed a deficit in relevant studies and research as far as the secondary level of education is concerned. Through the main research question, other sub-questions emerge that give an answer to the main one, such as the reasons for non-implementing UDL, the results of its implementation, the obstacles on its implementation, any differences between formal secondary education and formal adult education. The decision to explore teachers' views is since they do play a key role in the educational process and from a scientific point of view their own position is particularly important as they are the ones who experience school reality, apply the outside theories of scientists, and constitute the first recipients of various theories' results.

Inquiring and approaching the principles and objectives of specific scientific areas of pedagogy and in particular intercultural education, inclusive education and UDL, the study seeks to highlight their mutual convergence and whether UDL is a good practice that through its implementation is essentially ensured and fulfilled the implementation of the other two. Studying the literature, it seems that both at the level

of principles and the goal setting, there is an identification as the basic goal is this of equal opportunities for all students.

Specifically, the aim of intercultural education is to create the conditions for the development of a pedagogical beyond cultural differences through educational practices that provide effective education for all students regardless of national, cultural, linguistic, religious or other differences (Bleszynska, 2008). Therefore, intercultural education does not only concern foreigners or culturally different students but, since cultural heterogeneity also characterizes people with a common cultural background, the school as a whole. It is a dynamic process that refers to the meeting, interaction and cooperation between cultures (Palaiologou & Evaggelou, 2011).

Inclusive education respectively aims to remove those barriers that act as an obstacle to the learning process for all students regardless of gender, nationality, social status, disability or performance (Aggelidis & Avraamidou, 2011). Inclusion is based the vision of a School for All (Patsidou & Iliadou, 2011). It is also a dynamic process that aims at the equal access of all children and especially those that are characterized by special educational needs/disabilities in education (Thomazet, 2009), an education that relies on mutual respect and highlights the abilities of all students through its response to their needs.

UDL is an educational philosophy and practice that aims to the engagement, participation and development of students of different abilities (Horn & Banerjee, 2009; McGuire, Scott & Shaw, 2006). It highlights the need for flexibility and adaptation of teaching materials, activities and evaluation, i.e. of the curriculum (Izzo, Murray & Novak, 2008), in order to assure access to learning for all students regardless of ability, spoken language, culture and interests (Grassi & Barker, 2010). UDL, recognizing and accepting the diversity of each student, offers a variety of tools and options to ensure their access and participation in the learning process (CAST, 2011). And this is the exact way which the present research seeks to highlight as a main means and practice of promoting intercultural and inclusive education through UDL.

Finally, the research, based on the relevant literature review, aims to explore teachers' perceptions on whether UDL promotes intercultural and inclusive education as well. This is because it is believed that teachers play an instrumental role in the learning process as they are the exponents of any educational practice. Their own perspective has the greatest value from a scientific point of view as they experience the school reality and are called upon to apply in practice, to enact the proposed on a theoretical basis practice. Therefore, teachers are the first to accept the results of the implementation of an educational practice. For the above reasons, the research focus on teachers' perceptions and attempts through their views to reveal answers to some relevant questions about education reality in Greece.

The choice of the topic was based on the lack of research activities in this field and the desire to highlight this issue since UDL is widely applied abroad with positive results. In particular, the conducted research on UDL and its application are only 4 in number and are limited in other levels of education than secondary (Chalkiadaki & Akogiounoglou, 2018; Akogiounoglou, et al., 2019; Tzivinikou, 2014; Riviou, et al., 2014). So, our research concerns UDL in secondary education and specifically, attempts to highlight, through teachers' attitudes towards UDL, its effect on the Greek educational system as well as any possible factors that act as a deterrent to its implementation.

The Greek educational system needs the application of innovative practices to meet its role and modern demands such as this of inclusion. In addition, our research is focused on the factors that influence the implementation of UDL and the outcomes highlighting its value and the need for reforms and appropriate actions on the part of the relevant bodies for its successful implementation. Modifying the outdated curricula, appropriate teacher training, and adequate equipment are necessary whether we intend to adopt the philosophy of UDL. The findings of our research could be extremely useful in case there is a well-coordinated project by the competent bodies for the implementation of UDL in the context of inclusive education. This educational research contributes significantly to the development of the relevant educational scientific fields, as the use of its findings can lead to further development by the

responsible educational organizations and the teachers themselves (Altricher et al., 2001). In fact, and given the very limited research activity in this area the usefulness of the current research is even greater.

Research Questions

Under the present conditions, i.e. the heterogeneity of the student population and the policy of equal access and equal opportunities in education, the main research question of the study is whether intercultural education and inclusive education (with emphasis on SEND students) are promoted through UDL according to teachers' perspectives. The research concerns general secondary education in Greece, formal i.e. lower and upper secondary education for minors and adults i.e. Second Chance Schools (SCSs).

However, several subsidiary research questions have been developed to shed light on the main research question (Andrews, 2003). In particular, the following questions arose from the original question:

- Do teachers recognize as a need and implement intercultural and inclusive education in their teaching?
- What kind of obstacles do they face?
- Are they familiar and implement UDL?
- What are the barriers they deal with?
- Which are the results implementing UDL in learning procedure?
- Do they consider that UDL, intercultural and inclusive education are educational philosophies converging as far as the objectives are concerned?
- Do they believe that through UDL the aims of intercultural and inclusive education (especially for SEND students) are achieved?
- Are indicated any differences in UDL implementation feasibility and effectiveness between formal adult education and formal education for minors, and why?

- Due to the unprecedented situation of COVID 19 worldwide, distance education has been implemented in many countries, including Greece. To what extent on one hand is the implementation of UDL possible in distance education as well and on the other could intercultural and inclusive education be fostered through the implementation of UDL in digital environments?

Origins and rationale of the research questions

The selection of the topic arose due to personal interest in education practices that provide equal access and opportunities for participation to all students focusing not on one kind of student, the typical one, but on all students' needs minimizing barriers for learning. Searching for relevant information and focusing on my cognitive background improvement through international literature, UDL stimulated my attention. We were already familiar to intercultural and inclusive education practices due to my work experience, so UDL was an innovative practice that seemed to enclose somehow the principles and the objectives of the first ones. So, the choice of the present research is due to personal interest in applying practices that provide equal opportunities for participation to all students. Knowing and applying occasionally the model of intercultural education and that of inclusive education, I sought due to the new conditions an educational framework that converges with both by promoting them through its implementation.

Our initial thought was founded in several relevant literature and research reports. More specifically, as Rose and Gravel (2010) state "UDL helps meet the challenge of diversity by suggesting flexible instructional materials, techniques, and strategies that empower educators to meet these varied needs, designing a universal curriculum from the outset" (p.6). Designing for learner variability from the outset helps educators to create environments inclusive and accessible for all. Reviews of the UDL literature demonstrate that that UDL supports inclusion for all students (Crevecouer et al. 2012; Rao et al.2014). UDL based strategies provide instructional support for students who are culturally and linguistically diverse (Cast, 2016). Chita-Tegmark et al. (2012) posit that "UDL framework may not only

reduce barriers for culturally diverse learners, but also increase culturally informed learning opportunities for all learners, helping them to develop proficiency in a broader range of expressive, analytic and cognitive styles that are crucial to success in the twenty-first century” (p.17). The Center for Applied Technology (CAST, 2011) defines UDL as “a framework that addresses the primary barrier to fostering expert learners within instructional environments: inflexible, one-size-fits all curricula” (p.4). Hall et al. (2015) conclude that learners’ performance was improved due to the UDL application. Kennedy et al. (2014) indicate the effectiveness of UDL adoption on student performance with particular disabilities, while King-Sears et al. (2015) did not find any difference in academic performance, but the results of their study support a positive influence of UDL on learner perceptions. Hall et al. (2015) noted that disabled learners enjoyed using a UDL-online learning tool to improve reading comprehension.

As far as the Greek educational system is concerned, there is a need for further research about implementing UDL in any educational procedure and school level and mainly in secondary and adult education. There is a gap; there are not enough data about UDL, its implementation, its results, especially for secondary education, lower and upper, and adult education as well. So, our research stems from the need to investigate the philosophy of UDL in the Greek educational system. It is a relatively new field in which we do not have sufficient large-scale studies in any educational level. Therefore, we decided to investigate the potential of this philosophy in Greek secondary education and taking into account the data that constitute the educational reality while conducting the research to make the corresponding correlations. Our initial goal was to examine on the one hand the extent to which the educational community acknowledges and applies UDL, on the other hand whether the corresponding prerequisites are ensured. In addition, we considered the correlation of UDL with intercultural and inclusive education to be of key importance as it concerns practices that have become more common in Greece in recent years due to the demographic data of the students but also the development of values such as that of equality. Accordingly, we considered important to extend the research to Second Chance Schools, as

despite that they belong to adult education, are officially part of formal as well providing graduates with a degree equivalent to secondary education and specifically this of gymnasium.

Based on the above, we decided to get involved further and inquire whether UDL, due to specific principles that bind it, promotes intercultural education as well as inclusive education for SEND students, both in general secondary education and in SCSs, according to teachers' perspectives.

A brief description of the research

The research was conducted over a period of three years. Specifically, the phases of the research were:

- Phase 1: formulation of the theoretical framework that supports the research.
- Phase 2: selection of the sample/population
- Phase 3: design and determination of the research methodology, provision of scientific issues (validity, reliability)
- Phase 4: implementation of the research, data collection
- Phase 5: data analysis. Conclusions.

The research was essentially an attempt to inquire whether UDL could be implemented in mainstream classes of secondary education and SDE and in which extent according to the teacher's perspectives could foster intercultural education and inclusive education (with emphasis in SEND students) as well.

The structure of the study

The study is organized in eight Chapters. Specifically, the first Chapter is essentially an introduction to the topic and the main aim of the study. A description of the research, the research questions and the rationale of them, the structure of the presentation of the study are presented here in summary.

Chapters two and three are basically the theoretical part of the study. In Chapter two the main terms of the study, i.e. intercultural education, inclusive education, UDL, are presented according to the literature review. While in Chapter three there is on the one hand an approach to the national educational system in Greece focusing on secondary education and SCSs and on the other hand a literature review as far as intercultural education, inclusive education and UDL are concerned in the framework of the Greek educational system.

The research methodology is presented in detail in Chapter four. The rationale of the study, the research questions, the sample, the methods and the procedure of the research, the analysis and interpretation of the data collected, reliability and validity issues are reported thoroughly in this chapter.

Chapters five, six and seven are concerned with the presentation of the research's findings. The questions of the research, main and subsidiary, are answered here. Specifically, in Chapter five the findings of the questionnaire data are reported and discussed. While in Chapter 6 the findings arising from the interview data and in chapter seven the reflection journals' data are presented and discussed accordingly.

Finally, Chapter eight is the epilogue of the present study, a reflective epilogue which not only represents the final conclusions and comments on the research topic but also the limitations and the significance of the study as well as the necessity for further research in the future.

CHAPTER 2: REVIEW OF LITERATURE

Intercultural education

The modern reality of a globalized society due to the mass movement of populations, various political coalitions and unifications and the common needs, makes it necessary more than ever to formulate a social plan that supports cultural pluralism and provides the guarantees for a harmonic coexistence and development of all social groups. The school as a key part of the social fabric cannot be unaffected by this reality which it reflects in the context of its operation. It is therefore necessary to redefine the school role to meet the new requirements of a multicultural society. The school should be open to all regardless of differentiating characteristics such as social or economic class, nationality, gender, color, ability, religion, and ought to provide equal opportunities for learning, personal development, and peaceful, fertile coexistence of all citizens despite their differentiating characteristics. In this context, intercultural education is a model of education that concerns the cultural heterogeneity of the populations of modern nation-states and that through intercultural communication and interaction aims to create open societies, autonomous, with mutual acceptance and mutual understanding (1997)

. Intercultural education is a global demand, and it is a form of education that puts individuals and their culture in a position of differential treatment and at the same time in a position of equality with "other" individuals and their culture. It focuses on cultural interaction in order to develop and cultivate through it tolerance, respect, freedom, pluralism and cooperation. Intercultural education is a new form of education that promotes solidarity, mutual respect, and peace.

Intercultural education was developed in Europe in the period after 1975 as an attempt and perspective to deal with the diversity and multiculturalism that existed until then in a different way. Until then, foreign students were characterized by a deficit of educational capital which had to be supplemented through compensatory educational measures to be assimilated to the educational capital of native students, in short to be assimilated by the dominant society (Maligoudi, 2008). A reversal was

attempted in the 1980s, according to which the educational capital of foreign students was not considered as a deficit but simply different. According to the philosophy that began to be cultivated, the goal was to cultivate respect for the different and the smooth coexistence of different cultures. The term intercultural education was first heard about Europe at the UNESCO General Conference in Nairobi in 1976 on "Education as a means of international recognition, cooperation and peace, through the acceptance and mutual respect of all cultural identities" (Portera, 2010).

Intercultural education refers to the interaction between people, religions, and cultures and is fundamental since through it cultural differences (ideas, values, traditions) but also others related to gender, status of individuals or their abilities are not an obstacle to normal coexistence of individuals.

Intercultural education is about educating individuals to be able to appreciate the different cultures that each society creates and then to accept contact with different cultures and to make this coexistence of different cultures a new asset that enriches the social, financial, and cultural life of individuals (Cozma, 2001).

When we talk about intercultural education, we refer to any systematic effort, both for the members of the majority group and for the members of the minority groups, to cultivate specific skills:

- •This of understanding the importance of culture
- • The ability to communicate with other cultures
- • Attitudes that favor adaptability, such as respect and acceptance of the different as opposed to those that foster racism and xenophobia
- • The ability to interact, participate, adopt humanitarian values

(Ouellet, 1997)

The intercultural model of education is a model that transcends cultures, supports the peaceful coexistence of different values and cultural elements resulting in mutual acceptance among all members of the society in a spirit of interdependence and understanding of the self-realization of individuals and

peoples (Paleopologos, 2007). It signifies a compromising relationship, a dynamic process, a process of interaction and mutual recognition and cooperation of individuals from different immigrant groups (Kogoulis, 2005).

As regards the term "intercultural", many views have been expressed in the international literature in relation to the term "multicultural" and their identification or distinction. Markou (1996) for example considers that there is a confusion between the meaning of the terms "multicultural" and "intercultural" and distinguishes them as follows: the former is used to describe a particular social reality and its evolution while the latter suggests a dynamic and dialectical relationship of various ethnic and immigrant groups. Meer & Modood (2012) express the view that although the two terms do not differ, the term "intercultural" is included in the term "multicultural" and emphasizes some important elements of the latter. These indicative quotations indicate the non-semantic identification of the terms. The term "multicultural" is the datum while the term "intercultural" is the desideratum. Interculturalism presupposes multiculturalism without, of course, automatically deriving from it (Damanakis, 1998). Intercultural education is called upon to ensure equal opportunities in education for immigrants and refugees in the host country, to contribute through its pedagogical principles to the preservation of multiculturalism and to the integration of these people into the new social whole. It is an educational approach that aims to change the educational policy and the educational structures to ensure equal learning opportunities for all learners, of different nationalities and cultures (Banks & McGee Banks, 2010).

Intercultural education advocates the notion that there are no good or bad cultures, strong and weak, but equal. Every person is a citizen of the country where he resides and everyone, native or foreign, has the same rights as a citizen of a state. From this point of view, it becomes unfair to accept some criticisms from extreme voices who argue that the intercultural model of education is in favor of "foreigners" and against to local populations (Modgil et al., 1997), and that the ethnocentric thinking is

strengthened due to the fact that in the intercultural model of education the differences of cultures between natives and foreigners are emphasized within the classroom although the fact that in reality they are negligible. So, in the context of intercultural education, are the real needs of foreign students being met? Is there a risk for them of being trapped in a stereotypically constructed difference? To what extent are cultural differences real and not merely an ideological construct (Govaris, 2001)? Papas (1998: 301) aptly states and at the same time gives an answer to these criticisms that intercultural education is education "that aims at the establishment of a society with interaction and interdependence, with a spirit of reciprocity and equality in the social members, with mutual acceptance of both values and even the view of basic rights that social beings have, according to the Charter of Human Rights ".

Principles and objectives

Intercultural education is based on certain axioms:

- The axiom of the equality of cultures
- The hypothesis of difference or equivalence of educational capital of people of different cultural backgrounds
- The principle of equal learning opportunities for all students.

According to the first axiom, different cultures are equally important and are judged by internal criteria in terms of their functionality. Of course, cultural competition is recognized, the consequent hierarchies and conflicts that arise from it and are features of the modern world, but it is not promoted as it leads to a logical impasse from which we come out only if we accept the principle of parity of cultures. Each culture should therefore be evaluated based on its own terms as well as the orientations and values differ according to historical circumstances. And if one accepts the idea of the historicity of culture and cultural values as a theoretical starting point then the logical consequence is the acceptance of the relativity and not the universality of cultural values and principles (Damanakis, 2002).

The principle of equality of cultures is a fundamental axiom of intercultural education, as the acceptance of the cultural capital of each student is a condition for the acceptance of its educational capital which is the second principle of intercultural education (Damanakis, 2002). According to the second principle, that of the hypothesis of difference, the social and cultural elements of different groups of students are tried to be preserved and cultivated in a school environment that accepts pluralism, heterogeneity, diversity without attempting to equate them with majority population through the renunciation of other cultures (Damanakis, 1998).

According to the third principle of intercultural education which concerns the provision of equal learning and development opportunities to all students, the school must accept each student as he is and give him all the necessary stimuli and supplies to develop his abilities, personality and its educational capital, reducing inequalities between different groups of students in relation to school success, school dropout, miscarriages and other negative behaviors (Gilborn, 1999).

The acceptance of the cultural and educational capital of foreign students (1st and 2nd principle of intercultural education) is reflected in the provision of equal opportunities to these students in proportion to those provided to the natives (3rd principle of intercultural education). Thus, these three principles are inextricably linked to each other in an interactive relationship.

According to Essinger (1991), the basic principles of intercultural education are four:

- Training for empathy, i.e. the person to learn to understand others by seeing through their own perspective.
- Education for solidarity, i.e. the individual is practiced in the cultivation of collective consciousness (Maligoudi, 2008).
- Education for intercultural respect, cultivates respect for the individual towards cultural diversity.

- Education against the nationalist way of thinking, with the aim of freeing the individual from stereotypes and prejudices that stand in the way of the development of dialogue and communication between peoples (Nikolaou, 2000).

According to the guidelines in intercultural education from UNESCO (2006) the basic principles of intercultural education are the following:

- Intercultural education respects the cultural identity of each student through the provision for appropriate and responsible quality of education for all.
- Intercultural education provides each student with knowledge of different cultures and cultivates attitudes and skills necessary to achieve active and full participation in society.
- Intercultural education provides all students with knowledge about cultures and cultivates attitudes and skills that enable them to contribute to respect, understanding and solidarity between individuals, national, social, cultural and religious groups.

The main goal of intercultural education is the respect for the different, and consequently its acceptance and the effort of cooperation and fruitful coexistence of people of different cultural identities in the context of a multicultural society (Papas, 1998).

Intercultural education is a necessary consequence of the presence and coexistence of members of different cultures and aims to educate these individuals about their interpersonal relationships. The main objectives of intercultural education are:

- Enhancing the effectiveness of intercultural relations
- The cultivation of tolerance and acceptance towards the different
- Educating individuals to be able to perceive, accept and respect diversity, characteristics that contribute to the communication and interaction of individuals with different cultural backgrounds.

Intercultural education is an educational dimension with a global perspective that seeks to make societies open, culturally harmonious based on the principles of solidarity, equality, mutual understanding, and mutual acceptance (Gotovos, 2002).

Intercultural education is Pedagogy for all, i.e. it concerns not only the education of minorities but also and first the education of the dominant group. The first are trained to be integrated into the society where they live, while the others to be able to overcome stereotypes and prejudices and to develop intercultural readiness and skills respectively (Kesidou, Papadopoulou, 2008).

Factors of ensuring intercultural education

The composition of modern societies, that of cultural diversity, makes necessary the model of intercultural education to avoid conflicts and phenomena that undermine the peaceful and fruitful coexistence of citizens with different characteristics. But how do we ensure and enhance the provision of intercultural education? What are the factors on which intercultural education depends but also its success-effectiveness?

The cultivation of intercultural skills, the teacher himself and his teaching methods, the existence of an appropriate legal framework, the appropriate curricula, the cooperation among school-parents-teachers, the development of a corresponding climate within the school and in the local communities, are the main factors of promotion and strengthening intercultural education. Without the above it is impossible to talk practically about intercultural education. Intercultural education presupposes the adoption and implementation of institutional and educational measures, the "interculturalizing" of curricula, textbooks and school life in general (Maligoudi, 2008).

The school environment in intercultural education values and treats positively any difference, defending it. Curricula include human rights prominently, encourage respect for the different, promote the development of collaborative skills and prevent prejudices and stereotypes. The teacher provides equal learning opportunities to his students, enhances their self-esteem, and evaluates based on their

abilities. James (1994) characteristically stated that teachers have the power to either make some children feel invisible and insignificant in the classroom, or to make their differences seem insignificant.

Special mention is required about teacher's role in the context of intercultural education. Its role is crucial as it can set the basic conditions that will help students develop intercultural skills and then maintain them in their wider social life. If teachers succeed in applying the axioms of intercultural education in the school context, it will be easier for the results of the educational process to be transferred to an intercultural society. Intercultural education primarily improves social skills, necessary for all citizens to achieve dialogue and mutual understanding between members of society (Niculescu & Percec, 2014).

Of course, to build relations of mutual trust and cooperation between citizens, Nikolaou (2006) considers the "intercultural course" as a precondition. The teacher who wishes to adopt the principles of intercultural education should follow the following personal "course":

- Acquaintance with the "other"
- Breaking stereotypes and prejudices
- Gaining mutual trust
- Contact
- Willingness to achieve constructive cooperation (Nikolaou, 2003).

Students who are involved in an educational process based on the principles of intercultural education follow the same path.

We characterize a teacher as "intercultural" when:

- He/she is aware of the main ideologies related to education in a multicultural society and able to research information about the groups that make up its student population.
- He/she has developed a positive attitude towards diversity.
- He/she has pedagogical skills and consequently can employ effective strategies in his teaching.

Of course, to have effective intercultural communication, which is the main goal of intercultural education, it is necessary to cultivate the intercultural skill or competence. Teachers and students need to develop this skill to ensure an effective level of communication. Intercultural skills are composed of social skills (empathy, critical disposition), knowledge (about the mechanisms by which stereotypes are formed, prejudices and other social constructions) and values (respect, democracy, social justice) (Govaris, 2001).

Inclusive education

As Mittler points *“Schools and the education system do not function in isolation”* (Mittler, 2000;2). What is taking place in society is reflected to school life. Society’s people and prevailing values are school’s people and values as well. Therefore, as most countries are moving towards an inclusive society, that means towards an inclusive education well. Inclusion becomes an issue of great significance and a demand both for society and education.

As far as inclusive education is concerned, is an educational philosophy that aims to provide equal opportunities in teaching and learning for all students (Booth & Ainscow, 1998). It is about how we develop and design curricula, schools, classrooms, teaching, so that all students to be able to learn and participate together in the same environment. Inclusive education attempts to ensure access to quality education for all students by meeting the diverse needs and by building a supportive and respective common learning environment to avoid any exclusion. It is a process of reform and restructuring of the school system to ensure that all students, including those from linguistic or ethnic minorities, those with learning difficulties/disabilities, those who face other health or personal difficulties, and are absent or at risk of exclusion, have access to equal opportunities avoiding segregation and isolation (Mittler, 2000).

Even though it is hard to give a clear definition of the term inclusive education due to different interpretations (Richards & Armstrong, 2015), which lead to the danger to lose the coherence of the term

inclusion (Donforth & Naraiian, 2015), it is necessary to try to determine the term choosing the most representative approaches, in order to comprehend it in the education context.

UNESCO heading up the “Education for All” (EFA), has interpreted inclusive education as follows:

“Inclusive education is a process that involves the transformation of schools and other centers of learning to cater for all children-including boys and girls, students from ethnic and linguistic minorities, rural populations, those affected by HIV and AIDS, and those with disabilities and difficulties in learning-and to provide learning opportunities for all youth and adults as well. Its aim is to eliminate exclusion that is a consequence of negative attitudes and a lack of response to diversity in race, economic status, social class, ethnicity, language, religion, gender, sexual orientation, and ability. Education takes place in many contexts, both formal and non-formal, and within families and the wider community. Consequently, inclusive education is not a marginal issue but is central to the achievement of high quality education for all learners and the development of more inclusive societies. Inclusive education is essential to achieve social equity and is a constituent element of lifelong learning.

(UNESCO, 2009:4)

Booth correlates inclusion with participation and recognition. Inclusion “implies learning alongside with others and collaborating with them in shared lessons. It involves active engagement with what is learnt and taught and having a say in how education is experienced. But participation also means being recognized for oneself and being accepted for oneself: I participate with you when you recognize me as a person like yourself and accept me for who I am”.

(Booth, 2002:2)

The Centre for Studies on Inclusive Education (CSIE) promoted the Index for Inclusion (Booth & Ainscow, 2002, 2011, 2014) to support and guide schools through a process of development towards inclusive education. Accordingly, inclusion in education involves:

- Valuing all students and staff equally.

- Increasing the participation of students in, and reducing their exclusion from, the cultures, curricula, and communities of local schools.
- Restructuring the cultures, policies, and practices in schools so that they respond to the diversity of students in the locality.
- Reducing barriers to learning and participation for all students, not only those with impairments or those who are categorized as 'having special educational needs.
- Learning from attempts to overcome barriers to the access and participation of particular students to make changes for the benefit of students more widely.
- Viewing the difference between students as resources to support learning, rather than as problems to be overcome.
- Acknowledging the right of students to an education in their locality.
- Improving schools for staff as well as for students.
- Emphasizing the role of schools in building community and developing values, as well as in increasing achievement.
- Fostering mutually sustaining relationships between schools and communities.
- Recognizing that inclusion in education is one aspect of inclusion in society.

(Booth & Ainscow, 2011)

Sue Stubbs (2008:40) proposes a broad definition of inclusive education: "Inclusive education refers to a wide range of strategies, activities and processes that seek to make a reality of the universal right to quality, relevant and appropriate education. It acknowledges that learning begins at birth and continues throughout life, and includes learning in the home, the community, and in formal, informal and non-formal situations. It seeks to enable communities, systems and structures in all cultures and contexts to combat discrimination, celebrate diversity, promote participation and overcome barriers to learning and participation for all people. It is part of a wider strategy promoting inclusive development, with the

goal of creating a world where there is peace, tolerance, sustainable use of resources, social justice, and where the basic needs and rights of all are met.”

Various definitions and interpretations of inclusive education focus on equality and human rights. This is a common point about inclusive education despite the different definitions that cause difficulties in any attempt to measure inclusive education making it a real challenge (Loreman, et al., 2014).

According to Odom (2002) inclusive education is hard to be defined since it can have a different significance for everyone. *“It is a concept that means different things for different people”* (Odom, 2002:161). In inclusive education every person is different and must be treated as different. In general, inclusive education is a value-based process, with social, cultural and democratic extensions (Ainscow & Miles, 2008; Ballard, 2004; Booth, 1999; Slee & Allan, 2001). It takes on moral dimensions and is a matter of social justice (Allan, 2005; Booth & Ainscow, 2002).

The international literature reflects the benefits of inclusive education, which concern not only students with special educational needs / disabilities but also those who are characterized as students of typical development (Hall & Wolfe, 2003). Regarding students with special needs / disabilities, they develop their academic (Westling & Fox, 2009; Downing, et al., 2004; Downing & Eichinger, 2003; Rea, et al., 2002) and social skills (Westling & Fox, 2009; Katz & Mirenda, 2002; Dymond & Orelove, 2001; Hunt, et al., 1994) through inclusive education. The benefits of inclusive education, however, are also applied to students of typical development. In particular, all students benefit from the development of social skills (McCarty, 2006; Boyd et al., 2005; Copeland et al., 2004) and especially low-achieving students due to the fact that in inclusive classrooms the level of teaching is improved (UNESCO, 1994) as the educational inclusion imposes flexible curricula, specialized teachers and development and application of creative teaching methods and techniques (Hines, 2001; Power-defur & Orelove, 1996).

From special education to inclusion

During 19th Century, as students who could not fulfill the demands of formal education were led to special schools, a distinct system of education was established which increasingly promoted the isolation of people with disabilities (Karagiannis, et al., 1996). Nevertheless, the whole concept as well as the applications of special education led to exclusion of students with special needs/disabilities and to the form of anti-discrimination movements that brought to the fore the reconsideration of the concept of “disability” and the social position of people with disabilities (Saleh, 1997).

Former supporters of special education realised the limitations and potential damage of special needs philosophy in education and preconceived inclusive education as a process through which students with impairments become enable to access a general school and develop essential learning skills (Stubbs, 2008).

Some colleagues reject special education (Booth, 1998) or claim that “special education’ is not only anachronistic but also and mostly discriminatory (Mittler, 2000). Mittler points as well that inclusion is incompatible with special classes in mainstream schools due to the degree of segregation of pupils from each other. Segregated educational programs are criticized for stigmatizing students and leading to social exclusion (Powell, 2011).

On the other hand, other colleagues believe that in the context of inclusive education special education professionals and their practices are not excluded. On the contrary, they have professional training and a specific role, they must focus on removing any possible barriers in the learning procedure for any student and not to “fix” students with special needs (Stubbs, 2008). Accordingly, it is wise to perceive special education as a specialization, a total of good practices addressed not only to students with special needs but to all students (Brodine & Lindstrand, 2007).

In this light, the “paradox” of special education is removed, which lies in the fact that it simultaneously “includes” and “excludes” students with special needs. Certainly, inclusive education does not reject special education but asks for a reconsideration of its implementation, to be a useful tool in the

context of inclusion. Moreover, the need for special or additional support is imperative given the fact that school systems are utilitarian in structure and are organized around the discredited but widely held idea that intelligence is fixed, measurable and normally distributed (Florian, 2008).

Convergence of intercultural and inclusive education

Both intercultural and inclusive education as far as the finalities and the means of achieving are concerned, converge, and represent the vision of the new education in the context of the demand for intercultural communication and social inclusion (Bunăiașu, 2015).

Inclusive education promotes the vision of “Education for all” which refers to all students not only to students with disabilities as many claims and it is regulated by the following characteristics: “quality education; efficiency; responsibility; pluri-disciplinarity; complex process; strategy in order to respect rights; emphasize of the human individual value” (Vrasmaș & Vrasmaș, 2012).

All students have the right to be educated, including students coming from linguistic, ethnic, or cultural minorities, nomad groups, street and working children, children with impairments or the gifted one (World Education Forum, 2000). All young people and adults must be given the opportunity to gain the knowledge and develop the values, attitudes and skills that will enable them to develop their capacities to work, to participate fully in their society, to take control of their own lives and to continue learning (World Education Forum, Dakar, 2000:16)

So, it seems that in the context of inclusive education intercultural values are undoubtedly included and vice versa intercultural education programs promote the values of inclusive education. There is a two-way relationship between the two educational philosophies, and a convergence of goals and educational means.

As far the educational practices are concerned, both in intercultural and inclusive education, institutional changes in curricula as well in the organization of school culture, and the design of the learning process are matters of great importance (Tiriakidou & Tsiaples, 2017; Cummins,2003).

Creating the suitable climate, that of mutual respect, collaboration, responsibility, solidarity, empathy, updating the curriculum and adapting it to student's needs, providing equal access and opportunities, then we can talk about effective teaching and therefore achievement of social inclusion and justice (Adams, et al., 1997).

The development and forwarding of education practices that on the one hand they contribute to the creation of acceptance attitudes and respect for the different and on the other hand they provide equal education opportunities for all reducing stereotypes or prejudices and any form of racism, is the main mutual point in intercultural and inclusive education (Evaggelou & Moula, 2016; Gerosimou, 2014).

Universal Design for Learning (UDL): origin and a first perception

Worldwide, the modern educational reality is characterized by the great heterogeneity of the student population. The classes of each educational level are mixed due to difference that distinguishes students. A difference that is based both on socio-economic factors (poverty, prestige, authority) and on cultural (national identity) and educational (range of skills, learning profile, and learning background) reasons. Therefore, variability becomes a norm in today's schools (Hartmann, 2015).

Consequently, inclusive education is at the forefront being a requirement and at the same time a main goal of modern educational systems worldwide after the Salamanca Declaration (UNESCO, 1994) which was based on the acceptance of the right of every child to education and on the recognition of the existence of unique characteristics and needs that should be considered in the design and operation of any educational system. All children can learn despite any possible barriers to learning such as disabilities, health problems, social or financial difficulties, ethnic or cultural differences.

In contrast to the traditional teaching model aimed at the "typical" student, the one who gathers certain acceptable characteristics and successfully or adequately meets the requirements of traditional teaching, there is a "*multifaceted*" and "*nuanced*" theoretical framework (Hartmann, 2015), called Universal Design for Learning (UDL), that addresses to all students, refusing such categorizations,

accepting that each student is different, learns differently, thinks differently, and has different interests, preferences, skills and needs. UDL is a different way of approaching the learning process. It stems from and is built on diversity, aiming at adapting the educational process to the needs of students and not at adapting students to the needs of the educational process. UDL is a sustainable, well-structured student-centered framework that benefits all students (Schreiber, 2017), as it can be applied to any level of education to meet the different needs of all learners through their equal access to learning, equal opportunities and the adaptability of the process to their needs.

The UDL teaching model was developed in the 1990s by David Rose and the Center for Applied Special Technology (CAST) to provide the needed guidance to design and develop such educational conditions that benefit every learner providing equal access to the educational process (Hall et al, 2004). Initially, the goal was to improve the education provided to children with learning difficulties or disabilities mainly through technology (CAST, 2015). Soon, the goal was expanded to the general student population (CAST, 2018).

The inspiration for the idea of UDL was the movement of Universal Design (UD) in the field of architecture. In the 1980s, the architect Ron Mace defined Universal Design as the design of products and structures that serve all people to the fullest without the need for further retrofitting or specialized design (Bjork, 2009). Initially, UD was applied to the design of products and infrastructure that anticipated the needs of people with physical disabilities and facilitated them from the beginning, without the need for subsequent modifications (Zeff, 2007). However, it was immediately realized that UD products were equally beneficial for all people with or without a physical disability (Hall et al, 2004). Ultimately, this idea has been identified with the creation of products and structures that aim to serve a wider range of users, including those with disabilities (Rose & Meyer, 2002). Consider, for example, in the original design of a building the provision for the construction of a ramp at the main entrance, for an automatically opening door and an elevator to go to the other floors, for the installation of sockets and other equipment at a

height accessible to a wheelchair user, for sensor-activated lights or except for building cases the wide construction of sidewalk curbs (Bernaccio & Mullen, 2007; Cargiulo & Metcalf, 2013). Using the aforementioned products is not facilitated only a wheelchair user but if not all of us at least the most, for instance a parent who pushes a baby in a stroller while with the other hand holds a slightly older child, the elderly, a worker who carries items and has both his hands busy. So, these products started to be used by the general population due to their accessible design (Mace,1998) and the impact of social factors and in particular the changing demographics (increase of people with disabilities), the current legislation in response to the demographic change but also the development and innovation of technology (Zeff, 2007).

A team of architects, engineers and product designers led by Ron Mace defined in 1997 the seven principles of universal design (National Disability Authority, 2015). These principles can be used either for the evaluation or for the design of products or spaces according to the universal design, and are summarized as follows:

- Equitable use
- Flexibility in use
- Simple and intuitive use
- Perceptible information
- Tolerance for error
- Low physical effort
- Size and space for approach and use

(The Center for Universal Design, 1997).

The UD movement changed the way architects think and work in the design of building infrastructure and products. At its core is the belief that diversity is everywhere across the spectrum of life and should be accepted and honored UD is inclusive as it facilitates people of all ages and abilities in a way that does not stigmatize but benefits all users (Moore, 2001).

Respectively, in the field of education, universal design found fertile ground because of the ever-increasing diversity of the student population but also due to the political pressures for accessibility, equal opportunities and meeting the needs of all students (Zeff, 2007). The challenge of integrating new technologies and assistive technology into education has also been a key factor in introducing universal design into education (Zeff, 2007).

UD and education

The UD principles have been introduced to education through various educational models which complement each other (Higbee & Goff, 2008). Each educational model is regulated by specific principles however they converge on the seven principles of universal design (Roberts, Park, Brown, & Cook, 2011).

The most important models are the following:

- Universal Design for Instruction (UDI)
- Universal Instructional Design (UID)
- Universal Design for Learning (UDL)

(Rao, Ok, & Bryant, 2014).

Universal Design for Instruction (UDI)

Universal Design for Instruction (UDI) is an approach to teaching that consists of the proactive design and use of inclusive instructional strategies that benefit a broad range of learners including students with disabilities (Scott, et al., 2001). UDI focuses on enhancing student learning through the application of UD principles to the instructional design process (McGuire et al., 2006; University of Guelph, 2011). To be more specific UDI applies the original seven UD principles to instruction and two more, “community of learners” and “instructional climate” (Burgstahler, 2012; McGuire & Scott, 2006b; McGuire, Scott, & Shaw, 2003). According to UDI, it is significant to seek for designing or revising instruction to be responsive to diverse learners and to minimize the need for "special" accommodations

and retrofitted changes to the learning environment (*Scott, et al., 2001*). UDI incorporates inclusive attributes that embrace diversity in learners without compromising academic standards (*Scott, et al., 2001*). So, UDI is based on the original UD principles, it focuses on environment and accessibility, and it is mainly applied in the postsecondary education (*Center for Universal Design, 2008; Black et al., 2015*). The UDI principles have been developed in order to generate products and services appropriate to the widest range of diversity (*Burgstahler, 2001; Council for Exceptional Children, 2005*).

According to Black, Weinburg & Brodwin (2015) the UDI principles can be summarized as follows:

Equitable use	<i>Instruction is designed to be useful to and accessible by people with diverse abilities. Provide the same means of use for all students; identical whenever possible, equivalent when not.</i>
Flexibility in use	<i>Instruction is designed to accommodate a wide range of individual abilities. Provide choice in methods of use.</i>
Simple and intuitive	<i>Instruction is designed in a straightforward and predictable manner, regardless of the student's experience, knowledge, language skills, or current concentration level. Eliminate unnecessary complexity</i>
Perceptible information	<i>Instruction is designed so that necessary information is communicated effectively to the student, regardless of ambient conditions or the student's sensory abilities.</i>
Tolerance for error	<i>Instruction anticipates variation in individual student learning pace and prerequisite skills.</i>
Low physical effort	<i>Instruction is designed to minimize nonessential physical effort in order to allow maximum attention to learning.</i>
Size and space for approach and use	<i>Instruction is designed with consideration for appropriate size and space for approach, reach, manipulations, and use regardless of a student's body size, posture, mobility, and communication needs.</i>
A community of learners	<i>The instructional environment promotes interaction and communication among students and between students and faculty.</i>
Instructional climate	<i>Instruction is designed to be welcoming and inclusive. High expectations are espoused for all students.</i>

Fig.1 The nine principles of UDI

Universal Instructional Design (UID)

As far as Universal Instructional Design (UID) is concerned, it is a process in which the needs of students are anticipated during the planning and delivery of teaching (Higbee & Golf, 2008) . It is a model of universal treatment, which, despite the fact that it focuses on providing access to higher education for students with disabilities(Higbee, et al., 2008), takes into account the needs of all students and tries to detect any obstacles to the learning process in order to minimize them and ensure learning and minimization of the need for specialized facilities (Palmer & Caputo, 2005).

Burgstahler (2007) describes UID as:

...the design of instructional materials and activities that make the learning goals achievable by individuals with wide differences in their abilities to see, hear, speak, move, read, write, understand English, attend, organize, engage, and remember. Universal design for learning is achieved by means of flexible curricular abilities. These alternatives are built into the instructional design and operating systems of educational materials – they are not added on after-the-fact. (p. 1)

The UID principles include: (a) creating welcoming classrooms; (b) determining the essential components of a course; (c) communicating clear expectations; (d) providing constructive feedback; (e) exploring the use of natural supports for learning, including technology, to enhance opportunities for all learners; (f) designing teaching methods that consider diverse learning styles, abilities, ways of knowing, and previous experience and background knowledge; (g) creating multiple ways for students to demonstrate their knowledge; and (h) promoting interaction among and between faculty and students (Higbee, Chung & Hsu, 2004; Fox, Hatfield, & Collins, 2003). Of course, at the core of UID is the concept of inclusiveness and equity. Instructional matters and activities should:

- Be accessible and fair.

- Be straightforward and consistent.
- Provide flexibility in use, participation and presentation.
- Be explicitly presented and readily perceived.
- Provide a supportive learning environment.
- Minimize unnecessary physical effort of requirements.
- Ensure a learning space that accommodates both students and instructional methods.

(Burgstahler, 2005)

Universal Design for Learning (UDL) a deeper perception

UDL is based on the seven principles of UD incorporating the term learning and consequently focusing on accessibility to the curriculum and the training provided minimizing any factors impeding this accessibility (Martín and Mauri 2011; Edyburn, 2010; Horn & Banerjee, 2009; King-Sears, 2009). Contrary to the misinterpretation of the term "universal" as a one- common solution for all, UDL provides many possible solutions (Gawronski, 2014). What is required is the change and adaptation of the educational structures to students' needs and not students' adaptation to the requirements of the curricula (Gawronski, 2014). It is a well-organized framework of educational practices based on flexibility (Rose & Meyer, 2002) and diversity, in order to ensure the involvement of all students in the learning process regardless of competence, interests, culture, spoken language and national identity (Grassi & Barker, 2010; Jimenez, Graf & Rose, 2007).

According to Cast (2011) UDL is essentially about the way teachers think and design learning environments so that they can meet the needs of all students and favor their path to knowledge and development to the greatest extent possible. UDL is essentially an educational framework aimed at optimizing teaching and learning for all individuals based on scientific data on how people learn (CAST, 2020). It recognizes that each person learns in a unique way (Rose et al, 2014). It accepts that the

individuality of each learner is the rule and not the exception (Meyer et al., 2014), and consequently manages this individuality accordingly through the flexibility in the learning process regarding the objectives, methods, materials, and assessment. Curricula based on UDL are designed in such a way to address to all students from the outset, without the need for further adjustments (CAST, 2011).

UDL facilitates a continuum of support rather than categorized, separate or individual support (McKenzie & Dalton, 2020). This continuum is in accordance with a more “learner-centred” environment, which enables children to benefit from the needed adaptations, that are not only provided for children identified as needing support but also for a wider student population that can benefit from UDL (McKenzie & Dalton, 2020). The UDL framework fulfills the major goal of instruction, which is nothing more than making students “expert learners”, that is purposeful and motivated, resourceful, and knowledgeable, strategic and goal directed, in brief capable of leading a fulfilling life (Meyer, Rose, & Gordon, 2014).

Principles and guidelines of UDL

The theoretical background of UDL is based on the research field of neuroscience and grounded in cognitive and neural perspectives on learning. According to psychological and neuropsychological research, there are three distinct functions involved in the learning process (Rose & Strangman, 2007; Cytowic, 1996; Luria, 1973). Accordingly, there are three neural components for these functions. The neural components remind us Vygotsky’s (1962) identification of the three essential learning constituents, that is recognition of the information to be learned, application of strategies to process the information and engagement with the learning object. So, the three neural components are referred as recognition, strategic and affective networks respectively to their function (CAST, 2011). Recognition networks are broad networks of neurons in the back half of the brain’s cortex and refer to the way we receive, analyze and interpret stimuli, information (Rose & Strangman, 2007). Strategic networks are located in the front of brain’s cortex and are specialized to plan and execute functions such as selective attention, planning, coordination, self-monitoring (Rose & Strangman, 2007). Affective networks are localized to the core of

the brain and function like an emotional filter that influences us and enables us to prioritize, persist in, desist, or shut down (Rose & Strangman, 2007).

Recognition, strategic and affective networks could be paralleled with a choir, in which each singer must perform a defined role contributing to the final result. If one of the members of the choir is unable to function properly and perform his role then there are difficulties in achieving the desired result. Similarly, neural networks work together to the achievement of learning, and when they do not work as they should, there are noted difficulties in the learning process.

The information, provided to us even through images from the study of the brain regarding the cellular function of neural networks during learning, shows that their function differs depending on both the type of activity undertaken and the person who learns (Xiong, et al., 2000; Schlaug, et al., 1995). In fact, according to CAST (2018a): *“Each brain is made up of billions of interconnected neurons that wire together to form unique pathways. We are born with a foundation of brain structures. Over time, these structures change based on our experiences and interactions with our environment”*. Therefore, no identical brain function is observed in learners (Meyer & Rose, 2005) and consequently no identical learners. Every student is different, since the brain, the organ that shapes each person, shapes each one as a unique being (Fischbach & Fischbach, 2006). In this light, are groundless, meaningless and ineffective students’ categorizations of the type "smart # not smart", "disabled # non-disabled", "normal # abnormal" (Rose & Meyer, 2002). Respectively, modern learning theories mainly that of multiple intelligences (Gardner, 1999), show that as many different learning styles are formed as the interconnections of brain cells (Gevins & Smith, 2000; McIntosh & Tulving, 2000; Gardner, 1999).

The above data and the acceptance of the uniqueness and diversity of everyone have led to the need to develop flexible teaching methods to meet this assumption (CAST, 2018a). UDL incorporating the findings of brain studies has formed an educational framework that responds to different learning styles (Meyer & Rose, 2005). The three principles of UDL are built on the data of neuroscience on neural learning

networks and are in full correspondence with them (CAST, 2011). UDL fosters learning environments that value the uniqueness of each learner and the variability each brings (CAST, 2018a).

Therefore, the three UDL principles are formed by CAST (2011), they are based on the three neurological networks, and could be presented as follows:

- **Multiple means of representation:** This principle encourages educators to present information and content in a variety of formats for learners to acquire knowledge. Making information available in multiple formats is important because learners differ in how they perceive and understand the concepts presented to them. Learners with learning disabilities, sensory disabilities, or cultural and language differences may not benefit from a one-size-fits-all approach to content or there may be others who simply comprehend certain information more efficiently through auditory or visual means than through printed text. Multiple representations of a concept—known as dual coding—facilitates learning by allowing students to see connections within individual concepts and between different concepts.
- **Multiple means of action and expression:** This principle helps educators provide students with a variety of alternatives to demonstrate what they've learned. Learners differ in how they navigate through learning environments and demonstrate what they know.
- **Multiple means of engagement:** This principle encourages educators to use different ways to make good use of learners' interests, offer appropriate challenges, and increase motivation. Learners vary about how they can be encouraged to learn due to factors that influence them such as culture, neurology, personal relevance, and prior knowledge. A single means of engagement does not suit all learners in every context.




BRAIN NETWORKS	UDL PRINCIPLES
 <p>Recognition networks: the what of learning, the ways in which we assign meaning to what we see and recognize.</p>	<p>Multiple means of representation</p> <p>Providing content through multiple channels</p>
 <p>Strategic networks the how of learning, how we organize and express our ideas.</p>	<p>Multiple means of action and expression</p> <p>Providing opportunities for students to demonstrate their understanding in multiple ways</p>
 <p>Affective networks: the why of learning, how we get engaged and stay motivated.</p>	<p>Multiple means of engagement</p> <p>Stimulate interest and motivation for learning.</p>

Fig.2 The Universal Design for Learning Principles and the brain networks

UDL is based on specific principles and guidelines that guarantee equal access for all, without exclusion from the educational process due to the existence of differentiating characteristics. In each principle correspond three guidelines (CAST, 2011). CAST (2018) developed UDL guidelines that are based on three main principles that align with the respective learning networks. The UDL Guidelines are essentially a tool used in the implementation of Universal Design for Learning, a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn.

The Figure 2 lists the UDL guidelines which were developed based on the above principles and are a useful tool for any teacher wishing to apply UDL (Hartmann, 2015). It is essentially about a suggested set of strategies that can be selected and applied to the curriculum depending on their suitability.

Universal Design for Learning Guidelines

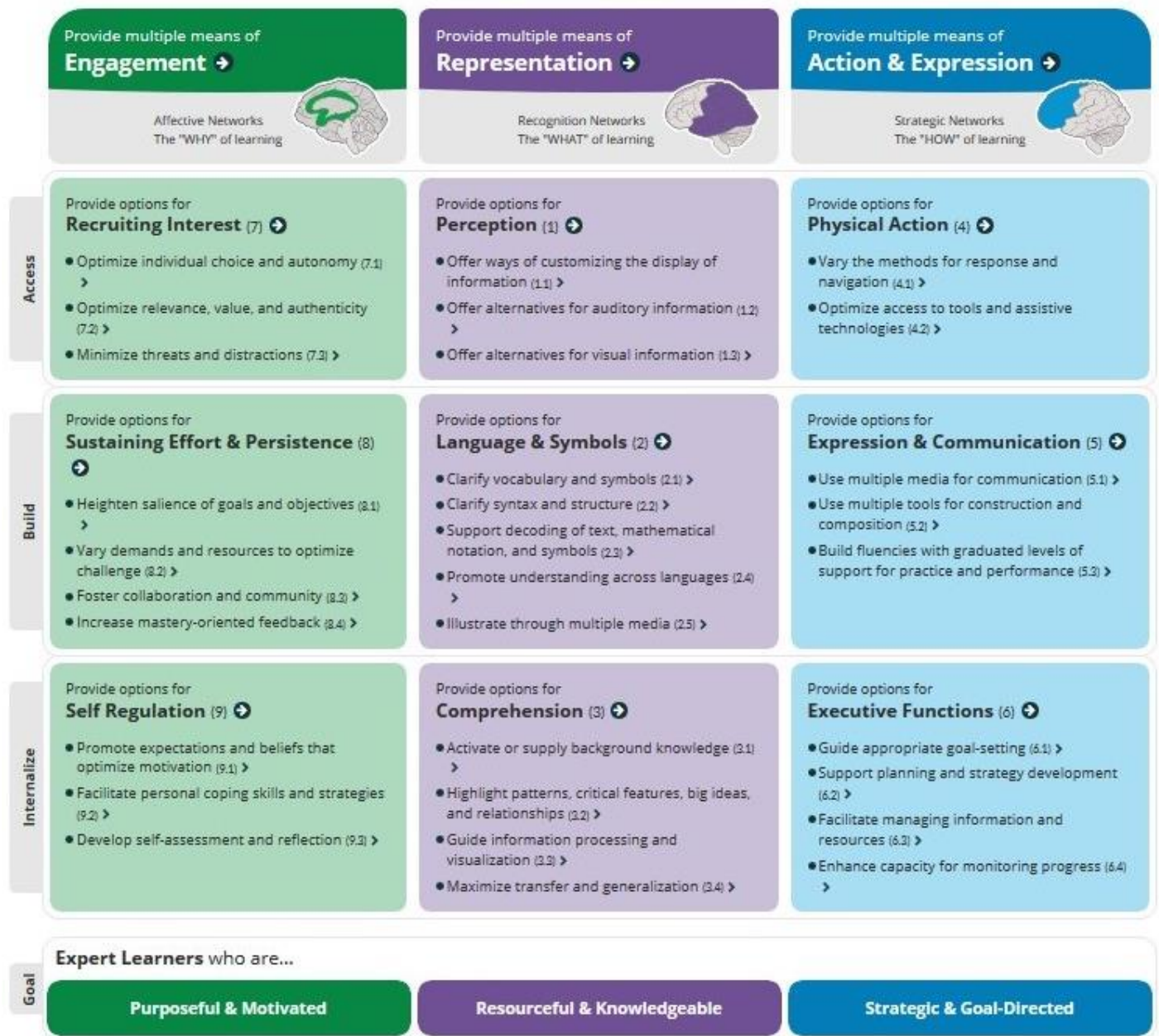


Fig.3 The Universal Design for Learning Guidelines (CAST, 2018).

Designing teaching in general schools according to the principles of UDL

To move from the theoretical part to the practical one, in the application of UDL, it is considered necessary to refer to certain conditions and guidelines for this application. First of all, like the UD in architecture, UDL refers to the creation of an inclusive environment that addresses everyone from the

beginning by providing equal opportunities without the need for ex post modifications. The goal of UDL is for every person to have access to knowledge, to want to learn and to learn how to learn.

It is therefore necessary to ensure the design of the education system or program according to UDL principles starting from the design of the curricula so that they are compatible with UDL, ensuring equal access for all to the educational process regarding the means and infrastructure as well as the corresponding training of the teaching staff. As an educational philosophy and practice, UDL requires the appropriate logistical infrastructure to ensure access to learning and its implementation. Respectively, the teacher who will choose or will be invited to adopt the specific educational practice is necessary to have relevant knowledge to be effective in his teaching but also to cooperate with colleagues of the same or different specialties, general or special education. Imagine that a physician is required to perform surgery on a patient without having the relevant knowledge and the necessary means, without the cooperation of other nursing staff.

The implementation of UDL presupposes corresponding Curricula, compatible with it in terms of their structural components, i.e. in the formulation of objectives, methods, materials and evaluation. Objectives refer to the learning expectations, knowledge and skills that all students must acquire. They consider student diversity by providing more options tailored to the learning potential (National Center on Universal Design for Learning, 2014). They focus on the development of "experienced" students (expert learners) while maintaining high expectations for each student (CAST, 2011). Regarding the methods, they are differentiated based on the diversity of the student population and are adapted according to their response (CAST, 2011; Gordon et al, 2009). Respectively, the materials are characterized by flexibility, providing multiple means and supports for the approach of conceptual knowledge, its expression and involvement in learning (CAST, 2011). Assessment refers to the process of gathering information about a student's performance and is an important teaching tool as it guides it (formative assessment).

Assessments within UDL reduce any barriers to accurate assessment of students' knowledge, skills and involvement through multiple instruments that adapt to their diversity (CAST, 2011).

CURRICULA	FLEXIBLE-OPEN (OBJECTIVES, METHODS, MATERIALS, EVALUATION)
INSTRUMENTS / INFRASTRUCTURE	DIGITAL SUPPORT, SPACE ARRANGEMENT, MATERIALS
TEACHERS	TRAINING ON PEDAGOGICAL-TEACHING ISSUES, COOPERATION

Fig. 4 Prerequisites for implementing UDL.

Darrow (2010) formulated seven principles for the implementation of UDL. Specifically, he states that lesson planning should a) be addressed to all, b) facilitate students' preferences and abilities through flexibility in use, participation and presentation, c) be comprehensible, understandable by every student, regardless of experience, knowledge, language skills or level of concentration, d) communicate to all students the necessary information, e) minimize difficulties-obstacles, allowing the student to make mistakes and providing relevant help, f) require the least possible physical effort, g) ensure that the learning space facilitates students but also the completion of the educational process per se.

Wu (2010) emphasizes that UDL is a collaborative model of teaching and learning and not just a list of suggested teaching methods. Cooperation between teachers is required, as Wu (2010) points out, but going a little further we would say that this is a multi-level cooperation of teachers with students, students among themselves, the educational community with other educational institutions, between teachers and student guardians.

Regarding the implementation of this collaborative model, Wu (2010) therefore suggests the following steps:

- Teachers collaborate and share their common vision for the implementation of UDL.
- Teachers explore possible solutions to eliminate barriers and set flexible learning goals for all students.
- Teachers design the implementation plan with focus on accessibility, classroom organization, teaching methods, communication methods and classroom climate.

- Teachers plan the implementation of UDL based on educational tools, software, teaching techniques, ensuring flexibility and variety.
- Teachers implement the UDL-compatible teaching plan by putting the whole process into continuous evaluation through a variety of application data collection. Evaluation plays a catalytic role in the implementation of UDL as it offers the opportunity for teachers to take a breath and reflect on the whole process, what went well and what did not, to draw clear conclusions in favor of a new future application.

A teacher who wishes to follow the universal lesson planning should dedicate time to approach and understand the philosophy of UDL. Planning, implementation and familiarization are not an easy process as they require time, experimentation, imagination, mood, patience and perseverance on the part of the teacher.

Burgstahler (2009a, 2009b), referring to the teacher wishing to adopt UDL in his / her course, suggests the use of practices that urge students to discover the importance and value of diversity and consequently inclusion to ensure non - discriminatory and rigid learning environments. However, we should note and emphasize that to achieve this implementation, the teacher must already be free from stereotypes and prejudices and treat his students equally. As regards space and materials, they should be accessible and safe for every student. Teachers should be available and accessible to all by encouraging interaction and collaboration between students, to maintain a supportive attitude throughout their teaching by providing the required feedback to students. It is suggested, respectively, that teaching methods ought to be flexible so that the course design to encompass the three principles of UDL, multiple means of presentation, engagement, action and expression. Regarding the use of New Technologies, they should be adapted to the needs of students, be accessible to all and to function as a motivator stimulating their interest. Assessment should be frequent and multilevel considering both individual and group effort

of students. Finally, teachers should create opportunities for adjustments for students who need further assistance (i.e. due to severe disability).

In Figure 4 we see the cyclical course that follows the teacher who chooses to adopt UDL. Initially, he recognizes the importance, the value and the necessity of its application (RECOGNIZE). Then, he thinks, he explores the learning profile of his students, their needs, their preferences, those factors that can be potential obstacles in the learning process (INVESTIGATE). In the next step, the teacher plans his teaching having completed the stage of investigation, choosing based on it the appropriate multiple means of presentation, engagement, action and expression (DESIGN). The lesson plan defines the objectives, methods and practices, materials and tools that will be used to gain students' interest, motivation and involvement in the learning process with the best possible results. The following is the stage of implementation of the teaching plan (IMPLEMENT / EVALUATE). The teacher implements the plan, an integral part of which is the evaluation, the continuous evaluation at the level of interest, participation (individual / group effort), performance, attitudes and behaviors. In the end, the teacher reflects on the implementation of the teaching plan and the evaluation, what went well and what did not, any unexpected situations, difficulties or obstacles, so that if he consider it appropriate to proceed to improvements for a future re-implementation of the plan (REFLECT).

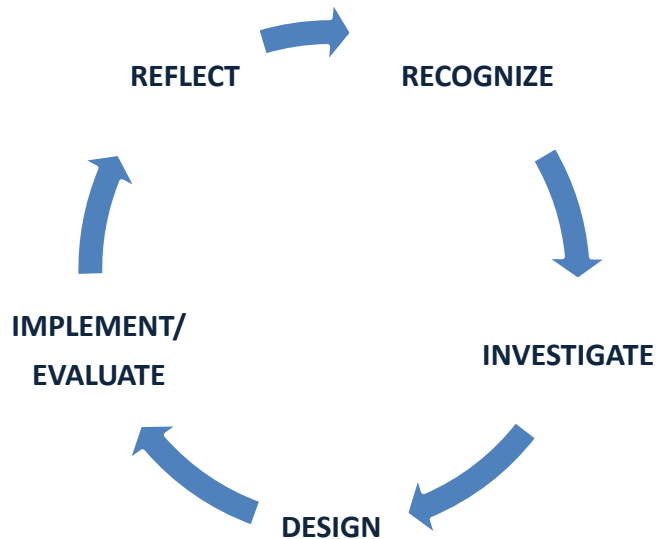


Fig. 5 Circular course of teacher thinking according to UDL.

At this point it is advisable to refer to the lesson plans as they are considered as key tools for the teacher who will choose to apply UDL in his teaching. It is essentially a kind of personal notes with information about the content of the course, the teaching methodology, the educational material, the required infrastructure and the evaluation of the course. The teacher plans his teaching by answering the following questions:

- Why will I teach? (Purpose, teaching objectives)
- What will I teach? (Content)
- Who will I teach? (Level - readiness - needs - interests of students)
- How will I teach? (Teaching method - classroom organization - means / materials)
- How will I evaluate the result? (Worksheets, observation, reflection)

(Mavropoulos, 2013).

Lesson plans on the one hand require planning, organization, skill and time for their design, on the other hand are a factor that determines the success of a teaching, providing a sense of security, readiness and ability to teachers to meet the requirements of their profession and adequately to educate their students.

Regarding the practices and means for the implementation of UDL, some examples are given in

Figure 5.

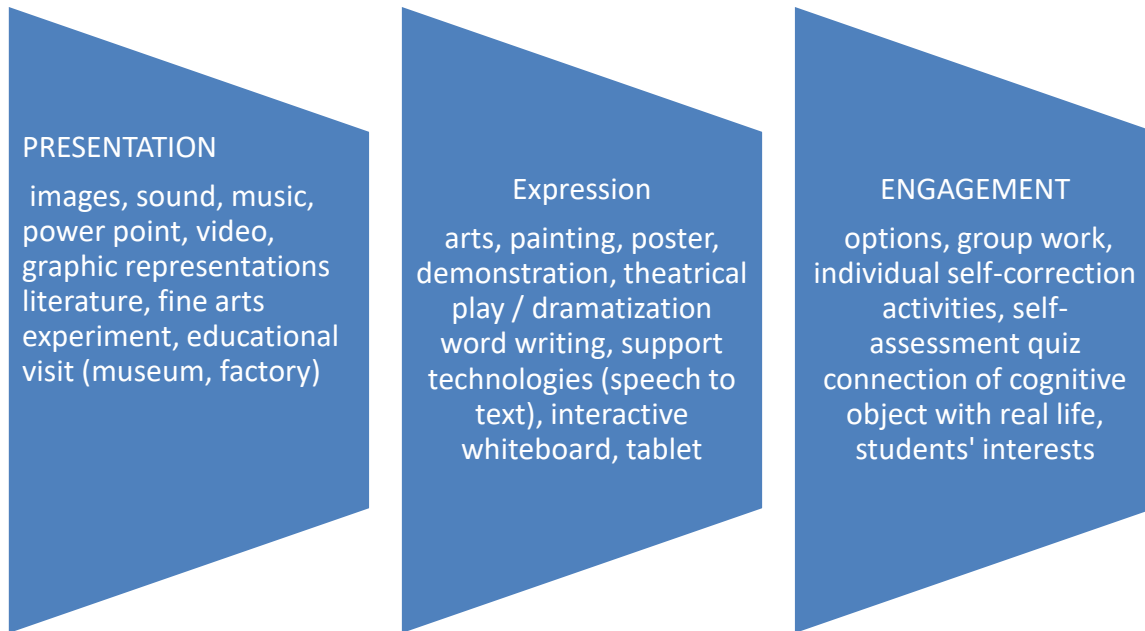


Fig.6 Proposed practices and means for the implementation of UDL

Fields of application

UDL can be applied in every learning process, in every educational level and subject without exception, in special education, intercultural education, adult education, both in live and distance education (Figure 6). Teachers using the principles and guidelines of UDL can design the teaching based on the needs of the trainees.

Its adaptability to a variety of learning environments and cognitive subjects lies in the variety of options in terms of presenting information, engaging and expressing students. Teachers, according to students' needs, their learning profile, their preferences, their cognitive background, any cultural differences, their abilities, but also the digital or live learning environment, will select and adapt accordingly techniques and methods in order to include all the trainees in the learning process, eliminating those factors that stand in the way of the approach of learning.

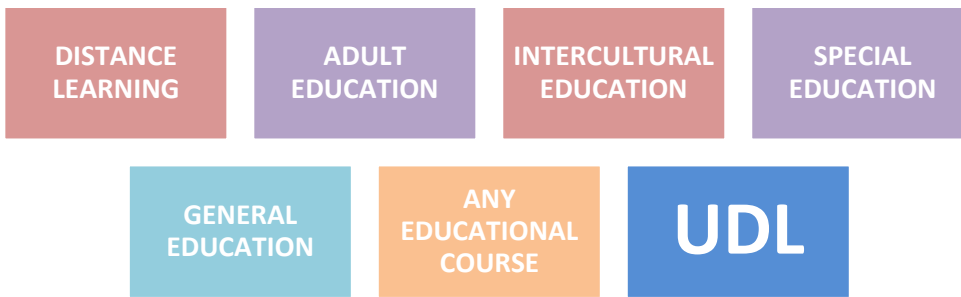


Fig.7 Fields of UDL application

UDL and NEW TECHNOLOGIES

The use of technology is not considered an integral component in the implementation of UDL; however it is a very useful tool for teachers as long as it is used properly. Teachers can well plan their teaching to be compatible with the principles of UDL both with and without the help of new technologies.

Clearly, the utilization of new technologies is a highly helpful and effective tool at the disposal of the teacher who wishes to apply UDL, as it facilitates the adaptation of teaching to the principles of UDL by providing the desired flexibility and variety in the presentation of information, expression, communication and involvement, however, is not a prerequisite for the implementation of UDL. New technologies and UDL are not synonymous. However, UDL, although we argue that it can exist without new technologies on the other hand, we consider it important to integrate them in its context as in the modern information society and high technology the use of technology in education is not only ancillary but also with the social demands for the creation of technologically "literate" citizens.

At this point it is important to clarify that when we talk about new technologies, we do not mean supporting technology i.e. wheelchair, cochlear implant etc. which is necessary for students' physical access to learning environments but we refer to educational software, Web 2.0 digital tools, interactive whiteboards etc. (CAST, 2011). In addition, the provision of assistive technology for students in need does

not in any way replace the need to implement UDL in order to ensure not only physical access but also substantial access, involvement and participation in the learning process.

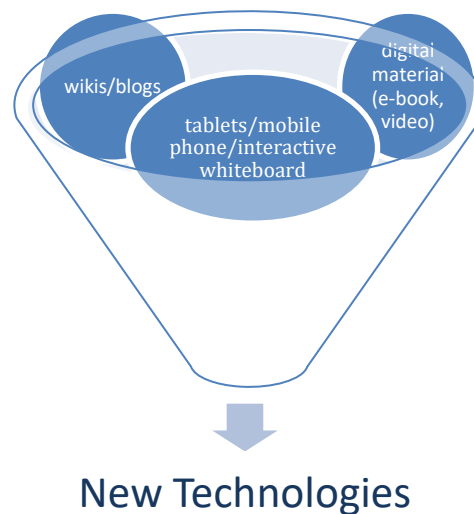


Fig.8 Examples of utilization of new technologies

Expectations of applying UDL

UDL is an educational framework that aims using diverse, appropriate teaching methods to eliminate any barriers to the learning process and provide all students / learners with equal opportunities to succeed. None of them is excluded from the learning process. UDL refers to the design of learning experiences that meet the needs of all learners and promote each of them.

The teacher, who implements UDL, essentially accepts that learning disabilities are due to the design of the teaching and learning environment and not to the student. It is not the student who needs to change but the learning process and the educational environment. These may be more likely to be labeled "disabled" than students.

The ultimate goal of UDL is for all students / learners to become "expert learners", i.e. experts in order to be personally motivated, to be imaginative and knowledgeable, to use strategies and to voluntarily aim at learning. In essence, it is a dynamic approach that creates in the teacher on the one hand higher expectations for all his students and on the other hand gives him more of a sense of personal

satisfaction. This satisfaction comes from all his involvement in the planning and implementation of the process as well as from the challenge that entails. Because UDL is indeed a challenge as it is a new philosophy of education that aims at equality and justice of education. On the other hand, UDL is a process that, in order to be implemented, must be accepted by all parties directly and indirectly involved in it, not only the teachers who apply it but also their colleagues, the management of the school, the students and the their guardians in order to be effective.

UDL is the educational framework that supports teachers in recognizing and dealing with the diversity that characterizes the student population. UDL moves teachers away from the traditional thinking of "one size fits all" that only creates obstacles in the learning process and perpetuates the myth of the "average" or "typical" student, thus excluding a large number of students who do not meet the given characteristics and requirements of an "outdated" educational system.

UDL is a different way of teaching. It sees diversity with a positive sign and accompanies it. We are all different, after all, and it is precisely this coexistence that leads us to personal and social progress, at all levels, values and attitudes, financial and social life. Especially in modern social environments, where diversity becomes more pronounced due to immigration and the refugee issue, UDL comes to respond to the demand for social inclusion and the cultivation of intercultural consciousness. Inclusive education and intercultural education as well presuppose values and attitudes with respect for cultural or other diversity and are promoted through a teaching framework that recognizes and accepts diversity and through this acceptance makes knowledge a common good, accessible to all, mitigating any obstacles in the learning process.

UDL in conclusion is a whole philosophy that is established not only in pedagogical theories and research of neuroscience but mainly in the values of equality and justice that are a global demand of the times we live in.

CHAPTER 3: AN APPROACH TO THE NATIONAL EDUCATIONAL SYSTEM OF GREECE

A description of the national educational system

The provision of free education is a constitutional principle of the Greek State as it is mentioned in Article 16, Section 4 of the Greek Constitution: “Education constitutes a basic mission for the State and shall aim at the moral, intellectual, professional and physical training of Greeks, the development of national and religious consciousness and at their formation as free and responsible citizens”.

The educational system in Greece is centralized and the Ministry of Education and Religious Affairs has the main administrative responsibility for it. Educational objectives, curricula, education staff, funding and any other issues related to education are under the auspices of Greek Ministry of Education and Religious Affairs. The Institute of Educational Policy (IEP) which was founded in 2011, a private law entity operates also under the supervision of the Minister of Education. It acts in the public interest with the aim to ensure free access to education for all children. It is also a scientific co-ordinating body. It provides constant scientific and technical support in the planning and implementation of educational policies to the Ministry of Education and its supervised bodies, focusing on the areas of primary and secondary education, of education after the end of upper secondary school, of the transition from secondary to tertiary education, of training of teachers and of tackling school drop-out and early school-leaving (https://eacea.ec.europa.eu/national-policies/eurydice/content/organisation-and-governance-33_en).

Education is divided into formal and non-formal. The formal educational system comprises three levels:

- Primary education
- Secondary education
- Tertiary (Higher) education.

According to the International Standard Classification of Education (ISCED), an internationally agreed classification designed for the cross-nationally comparable coding, analysis and reporting of data related to educational programs and qualifications, approved by the Unesco General Conference at its 29th session in November 1997, its classification variables (7 levels) are applied accordingly to the Greek educational system (Unesco, 2006). Nowadays, the most recent version, ISCED 2011, adopted in November 2011 (Unesco, 2011), a revision that was promoted by Euro stat due to Bologna’s reforms and the recognition that ISCED is significant for the production of education-related indicators, is in use.

Table 1 The International Standard Classification of Education (ISCED)

ISCED 2011	ISCED 1997
0 Early childhood education	0 Pre-primary education
1 Primary education	1 Primary education
2 Lower secondary education	2 Lower secondary education
3 Upper secondary education	3 Upper secondary education
4 Post secondary education	4 Post secondary education
5 Short cycle tertiary education	5 First stage of tertiary education
6 Bachelor level education and equivalent	6 Second stage of tertiary education
7 Master level education and equivalent	
8 Doctoral level education	

Primary education includes 2 years of attendance in pre-primary school (Nipiagogio) from the age of 4. [Law 4521/2018](#) establishes the two-year compulsory pre-primary school for 4-year-old children from school year 2018-2019. And 6 years of attendance in primary school (Dimotiko scholeio). It includes grades 1, 2, 3, 4, 5 and 6. Six-year-old pupils enrol in grade 1. Pre-primary and primary schools can be public or private. There are also pre-preliminary educational services for children under 4 (nursery schools for infants and children).

As far as secondary education is concerned, it includes two cycles of studies:

- Lower secondary education school (gymnasium/gymnasio), three years of compulsory attendance
- Upper secondary education school (lyceum/lykeio) that can be either general or vocational, three years of optional attendance.

Both cycles are provided from public or private schools. Compulsory education in Greece is 11 years, from pre-primary school to lower secondary school. In accordance to the provisions of the Penal Code (Article 458, note 2) any adult who has the custody of a minor student and fails or neglects to register or supervise him as far as the compulsory education is concerned is penalized with punishment.

In the content of formal education take place respectively within and outside the school timetable reception classes and tutorial courses addressed to foreigners and repatriated pupils and remedial teaching which is applied in primary schools and in lower secondary schools for weak students. Additional teaching support is applied in upper secondary school, available to any pupil lagging behind in school performance. Furthermore, Educational_priority_zones (ZEP) cover primary and secondary education schools. These zones also include school networks with a significant participation of special groups of pupils (e.g foreigners, Roma, or minority populations etc.). The overall purpose of ZEP is to create and test in practice alternative and flexible educational approaches, ensuring equal inclusion in the educational system of pupils from areas with low educational and socio-economic indicators. In ZEP content there is a special support for refugees' children (structures of reception) in order to achieve education and be socially included (Law 4415/2016).

As regards students with special needs/disabilities there are special schools of primary and secondary education as well. However, co-education is promoted in general schools for students with mild learning difficulties or in any case even for students with severe disabilities if there is not a special school in their area of residence. In these cases students attend general schools receiving help from special education and training teachers who collaborate with the class teachers and the Regional Centers

for Educational Planning (PEKES), the Centers for Educational Support and Counseling (KESYs) and the Interdisciplinary Committees for Educational Evaluation and Support (EDEDAYS) (Law 3699/2008). Furthermore, homeschooling is provided in primary and secondary education in two cases. First, when due to severe short-term or chronic health problems it is impossible for students to transport and attend school. Secondly, when serious disabilities and special educational needs make it difficult for students to attend school in the mainstream education (https://eacea.ec.europa.eu/national-policies/eurydice/content/institutions-11_el#%CE%9A%CE%95%CE%A3%CE%A5)

The third level of formal education in Greece, is higher education and is provided by higher education institutes (HEIs). Higher education includes two parallel and distinct sectors:

- The sector that includes universities, national technical universities and the Higher School of Fine Arts
- The technological sector that includes technological educational institutes (TEIs) and the School of Pedagogical and Technological Education (ASPETE).

Both sectors are only public. Students who want to continue to higher education take the Pan-Hellenic examination which gives them access into HEIs, thus to 22 universities and 14 technological educational institutes (TEIs) across Greece (OECD, 2018). Technological educational institutes have merged with higher education institutes (the university sector) providing absolutely equivalent degrees with them.

Formal education includes also general formal adult education. Certification is equivalent to the one awarded by gymnasia (lower secondary schools) or lykeia (upper secondary schools). It is recognized at national level. Formal adult education entails:

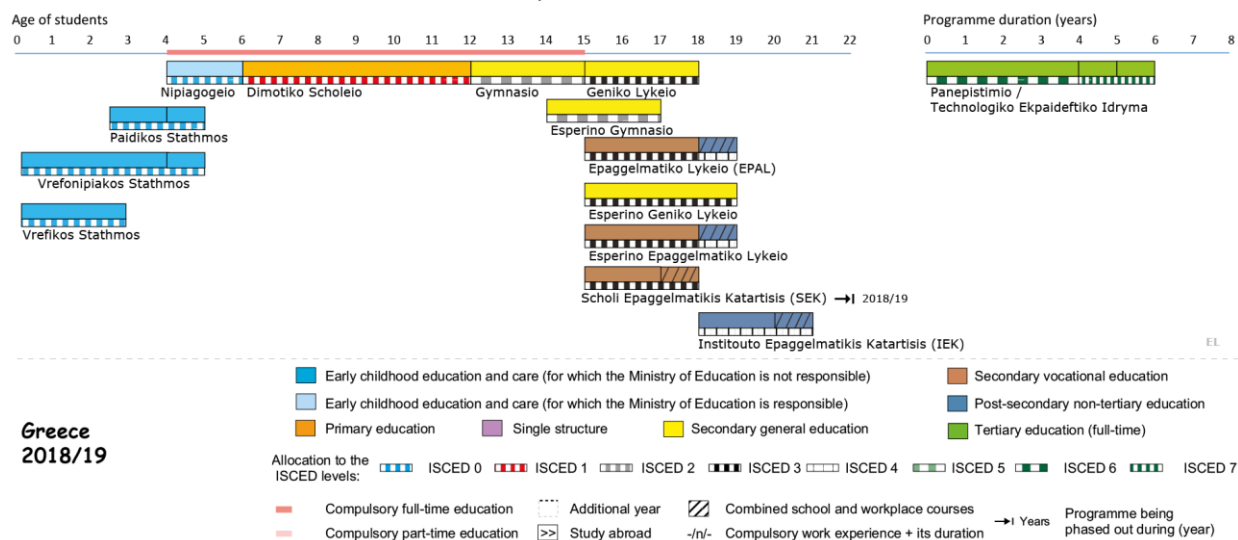
- Second chance schools (equivalent to lower secondary education)
- Evening general upper secondary schools (equivalent to upper secondary education)
- Evening vocational upper secondary schools (equivalent to upper secondary education)

https://eacea.ec.europa.eu/national-policies/eurydice/content/secondary-and-post-secondary-non-tertiary-education-20_en

Non formal education, according the Laws 3879/2010, 4186/2013 and 4386/2016, is provided in an organized educational content (apart from formal education) by vocational training centers for lifelong learning, post-secondary year apprenticeship class and colleges. Colleges are private entities that provide degrees equivalent to those of public higher education (https://eacea.ec.europa.eu/national-policies/eurydice/content/glossary-26_en#COL).

At this point it is considered significant to refer to a term with negative connotation that accompanies the public educational system. It is about private tutoring, known in Greece as “paradedia” or parallel education, a financial burden for many households especially after the financial crisis of 2009. Mark Bray (2009) first popularized the term “shadow” education for private tutoring, which has taken a huge dimension in Greece. However, private tutoring does not seem so shadow as every individual or company that provides tutoring needs a permit from the Ministry of Education and Religious Affairs (Kassiotakis and Verdis, 2013). So, it is a visible, official and competitive component of the Greek educational system enrolling a great number of secondary school students (OECD,2018). This becomes obvious from a recent survey in 2014 among 534 households whose children had taken Pan-Hellenic examination in the last five years. The survey has shown that 99% of these students in the last year of upper secondary school attended private tutoring (Lioudaki and Lioudakis, 2016). Private tutoring takes place after the school program especially in afternoon hours and at weekends providing services for each educational level from primary education to higher. Any government’s plan to weaken private tutoring demands major reforms. The 2017 plan of the Ministry of Education and Religious Affairs noted about private tutoring: *Secondary education has been replaced by shadow education (private tuition centers), a fact which undermines the educational process itself. This problem is not only educational but profoundly social* (Ministry of Education and Religious Affairs, 2017).

Table 2. Structure of the national education system in Greece



Source: Eurydice 2018/19

http://eacea.ec.europa.eu/national-policies/eurydice/content/greece_en

Overall national education strategy and objectives

The current situation in Greece, thus the significant economical crisis and decline in national income, reductions in public expenditure, unemployment, the refugee crisis, reductions in education budgets, the long-term closure of any education unit due to the pandemic Covid-19 and consequently the necessity for tele-education, is affecting education and make necessary more than ever the adoption of major reforms and interventions.

The Greek Ministry of Education and Religious Affairs recognises the difficult circumstances and declares a number of reforms in order to ensure an effective, efficient and promising education. Specifically, the previous Government's Education Programme included the following proposals:

- An open, modern, creative education
- Autonomy in educational units and confidence in teachers
- Equal possibilities and opportunities for all
- A secure environment in order to create and transmit knowledge

- Evaluation and dissemination of best practices

https://eacea.ec.europa.eu/national-policies/eurydice/content/ongoing-reforms-and-policy-developments-27_en)

Furthermore, it settles as strategic objectives the autonomy in any educational unit, the interconnection of higher education with the labour market, equality in opportunities for all, promotion of digital education, cultivation of active citizenship and evaluation at all levels.

Certainly, the objectives above are based to a radical reform of the educational framework. Facing Early School Leaving (ESL), new curricula, inclusion of students with special educational needs/disabilities (SEND students)/foreign students with a different cultural background/students from vulnerable groups, equality in the providing education for students of remote regions, training of teachers and heads of schools, emphasis on digital technology and development of digital skills, recruitment of teachers (permanent and substitute staff), securing an open/innovative/autonomy education, ensure the achievement of the settled objectives, which are at the same time priorities in the framework of “Europe 2020” strategy (https://eacea.ec.europa.eu/national-policies/eurydice/content/ongoing-reforms-and-policy-developments-27_en).

The Ministry of Education and Religious Affairs proposes horizontal policy priorities in the national content. High quality basic skills and key competences, efficiency of the education and training system, open education based on innovation and digital technology, social inclusion (focusing on the latest influx of refugees and asylum seekers), the educational value of the European cultural heritage as a foundation for cohesion and growth, compose the political priorities as regards education (https://eacea.ec.europa.eu/national-policies/eurydice/content/ongoing-reforms-and-policy-developments-27_en).

Secondary education in Greece

Secondary education in Greece comprises lower secondary education (gymnasio) and upper secondary education (lykeio). It covers two phases on the International Standard Classification of Education scale, level 2 for lower secondary education and level 3 respectively for upper secondary education (Unesco, 2011).

Lower secondary education is compulsory according to Law 1566/1985 as long as the student has not exceeded 16 years of age. In secondary schools admitted students can have a maximum age up to 16-year old and a primary education certificate or its international equivalent. Students can enter directly without exams. Lower secondary schools consist of three academic years (grades), numbered from A to C. The ages of students can vary with the most common being are between: age 12 to 13-year-olds for the 1st grade (A), age 13 to 14-year-olds for the 2nd grade (B), age 14 to 15-year-olds for the 3rd grade (C).

As far as the compulsory education is concerned, there are the following school types that provide lower secondary education:

- Day general lower secondary schools, which are the main providers of general compulsory education
- Evening general lower secondary schools, which are attended by students over 14 years old who are employed
- Standard and experimental lower secondary schools, in which the admission of students is by lot
- Music schools, in which the enrollment of students is done after selection by a special committee set up for each school separately
- Art schools, in which there are entrance exams for enrollment
- Ecclesiastical schools, which have as an aim the promotion of clergy and laity of the Orthodox Church
- Special education and training lower secondary schools (EAE), for students with special educational needs/disabilities (SEND students) up to 19 years old

- Minority schools in Thrace for the education of the demarcated Muslim minority
- Ierospoudastiria, religious schools for the Muslim minority in Thrace
- Intercultural schools, which are aimed at the educational integration of children of immigrant origin
- School of European education, for children of the staff of the European Union, International Organizations and Diplomatic Missions
- Second Chance Schools (SCSs), which are aimed at adults who have completed 18 and have not fulfilled their compulsory education.

Upper secondary education is composed of general upper secondary education and vocational. Respectively with lower secondary education, in upper secondary education which is not compulsory there are three academic years from A to C (three grades). Students who have completed lower secondary education and wish to continue their studies can enroll to upper secondary schools. In general upper secondary education there are the corresponding types of schools of lower secondary education. Day general upper secondary education schools (likeio) are the main provider of non compulsory secondary education as well as evening general schools which are addressed to working and unemployed students. In upper secondary education there is not a corresponding institution with Second Chance Schools aimed specifically at adults.

As far as vocational upper secondary education is concerned, this is provided by vocational schools (EPAL), day vocational schools and evening vocational schools. They are provided two cycles of studies:

- Secondary (formal educational system)
- Post-secondary –apprenticeship class (non formal educational system), in which are enrolled graduate holders of secondary education certificate.

From school year 2017-2018, United Special Vocational lower secondary and upper secondary schools (gimnasia and likeia) were established and put into operation under common administration,

director and teachers' association with 4 years studentship for each level of education respectively. Students with special educational needs/disabilities can enroll up to 16 years old. Last, there are also Practical schools of special vocational education with six grades in which student with special educational needs/disabilities can enroll up to 16 years old after completing primary education, general or special, and the relevant report of KESYS.

The objectives of general secondary education

Modern educational systems, among which Greeg system seeks to be included, focus on the following strategic goals:

- Quality and effective education
- Open education
- Equal access for all,

in order to emerge active and integrated citizens through the cultivation of multiple skills, cognitive-spiritual, social, emotional, physical.

Specifically, according the Law 1566/1985 general compulsory secondary education aims to promote the full development of students according to their age and the demands of life. Lower secondary students are invited through the provided training to be able to expand their system of values, to combine the acquisition of knowledge with the corresponding social concerns, to deal with the various situations of life through responsible solutions, collective and creative. Furthermore, another main concern of lower secondary education is the cultivation of students' linguistic expression in order to be able to articulate thoughts and opinions with clarity and correctness in both written and oral speech. Finally, students begin to realize what their potentials, aptitudes and skills are, and obtain the necessary knowledge in how to improve the above within the framework of cultural, social and finance life.

Respectively, according the relevant Law 4186/2013 the aim of general non compulsory secondary education provided by upper secondary education schools is the in-depth study and specialization of

students in any cognitive school subject in order to cultivate the appropriate skills which will facilitate their entry and integration into the labor market and will accompany them in their future social life. Therefore, the education of the students through the provision of a high level of general education aims at their balanced development, encouraging their critical thinking, their creativity, their own skills and general skills that lead to applying the newly acquired knowledge. In addition, the cultivation of national, religious and cultural heritage and the preparation of young people for the society of European citizens are the main objectives of upper secondary education. Respectively, the figuration of the consciousness of active citizens and the cultivation of respect for human rights, cultural heterogeneity and all kinds of diversity, but also the cultivation of a spirit of solidarity, collectivity, cooperation, faith in the values of peace, freedom, democracy are included in the targets of upper secondary education.

In the year 2020, due to a special condition that many countries around the world met, including Greece, this of pandemic Covid-19, as schools remained closed for a reasonable period of time, the Ministry of Education and Religious Affairs was led to accelerate the plan to integrate schools into the digital era and create digital literate students and citizens. For secondary education, compulsory and non-compulsory, the foundations for distance learning (tele-education) were essentially laid through its planning and recognition of its contribution to the future. In addition to the goal of each student having the necessary equipment, it is highlighted the need for students to develop the appropriate digital skills in order to meet the new demands of the digital era.

Curricula

Curricula in Greek educational system have been prepared by the Pedagogical Institute which has been replaced by the Institute of Educational Policy (IEP) since 2011. Curricula are official guides of the educational project and include formulated objectives by lesson and level, the teaching material structured in individual sections and indicative guidelines regarding the method and the means of teaching. They are formed at a central level and are addressed to all students who attend the same class

and school level. They are experimentally tested, evaluated and revised according to developments in education science (https://eacea.ec.europa.eu/national-policies/eurydice/content/teaching-and-learning-general-lower-secondary-education-16_el).

During the period 1997-2003, educational changes were attempted in the context of which there was also the effort to create flexible curricula. Also, since 2003, with the Interdisciplinary Unified Curriculum(DEPPS) and the Curricula(APS) for compulsory education, the interdisciplinary approach to knowledge has been established and the interconnection of cognitive objects has been expanded with the aim of optimizing the greater autonomy of teachers, the elimination of fragmentary knowledge and the formation of students' personal views on issues of daily life through active methods of acquiring knowledge (Government Gazette, 303).

During the period 2017-2019, respectively significant changes were promoted in curricula and in the teaching material of cognitive subjects of the general upper secondary education, with the main aim of the interdisciplinary approach of knowledge. However, the centralized character of the Greek educational system hardly allows any desired flexibility of curricula. On the contrary, the curricula in Greece are characterized as closed and are based on a predetermined schedule and timetable, specific teaching instructions and a single school textbook.

The OECD report of 1996 remains currently relevant and states that: "The policy for the curriculum in Greece is mainly determined by the adherence to school textbooks and the fact that the curriculum and school textbooks are prepared and published centrally. In such a system, the development of a school curriculum at the school level, the adaptation of the curriculum to local needs or the needs of specific customer groups, and the initiative of teachers have no place. This situation acts as a major disincentive to initiative" (OECD, 1996).

The authors of the latest operational curricula utilize contemporary scientific findings regarding the teaching and learning process at the methodology level and propose open procedures to achieve

some autonomy of the side of teachers and students. However, despite the fact that the general principles set out in the new curricula, the holistic view of reality and the proposal for interdisciplinary activities and utilization of alternative teaching methods could form an interactive training framework, flexible and open, this perspective is demolished due to some significant parameters. The explicitly stated objectives according to Bloom's classification refer to a closed target model, to a strict definition of the procedure and to the control of the achievement of objectives through a final evaluation (McCormick & James, 1990). Furthermore, the pre-defined teaching framework and the strictly delimited teaching material, despite the interesting methodological assumptions of the prologue texts, perpetuate curricula characterized by an inelastic approach to the educational process, giving priority to the final product than to the teaching process, and not allowing any teacher to react based on the conditions of his class.

Educational personnel

Teachers who serve in secondary education as well as in primary education are graduates of at least the first cycle of studies of the respective university departments. A part of the teaching staff is permanent and the rest consists of substitutes and hourly paid teachers. According to the new system of appointments and recruitments that was implemented from 29-01-2019 (Law 4589/2019) for the appointment of primary and secondary education teachers, members of special educational staff and special auxiliary staff, as well as for the recruitment of supplementary and teachers of general and special education, the High Council of Personnel Selection (ASEP) is responsible. According to the new framework of appointments and recruitments, these are carried out on the basis of evaluation lists of candidates by department and specialty that ASEP designs after a request from the Ministry of Education and Religious Affairs. Those, who have the formal qualifications, have the right to participate. The interested parties submit an application for candidacy as defined by the relevant announcement of ASEP.

Teachers in Greece have a high level of education but are deprived of opportunities to develop their pedagogical skills, especially in secondary education (EC, 2019). In a comparative study of secondary

education teachers in Greece and in other countries, the aforementioned perception was confirmed, that is, the profile of knowledge of Greek participants was particularly high in the field of evaluation but relatively low in the field of learning and the lowest in the field of teaching. In fact, from all the participating countries, Greek secondary school teachers had the least opportunity to be trained in pedagogical methods (Sonmark et al., 2017). Undoubtedly, a main factor is believed to be the lack of stability as since 2009 all teachers are working as substitute teachers with annual contracts and frequent relocation to new schools and concomitant difficulties professional and personal as well. The lack of stability undermines opportunities for teachers to participate in school self-evaluation, school-level learning, to develop and promote professional relationships as well as strong teacher-student relationships (OECD, 2018).

The teaching profession, despite the blows it has received in economic terms in recent years, years of economic crisis, remains attractive and the number of prospective teachers far exceeds the demand.

At this point it should be mentioned that the evaluation of teachers as an institution has not been established in Greece and as a result teachers' teaching skills are not rewarded in the context of the Greek system, despite the belief that it would improve quality, job satisfaction and teachers' sense of effectiveness (EC, 2018a).

Student population

The main feature of the population of Greece is the cultural heterogeneity as Greece has been a host country for a large number of immigrants and refugees for many years. Since 1980, with a peak in the decade 2000-2010, it accepted immigrants from all over the world. From 2014 to the present day, Greece has been a host country for large numbers of refugees from Mediterranean nationalities. It is therefore logical that the school, as a miniature of the wider society, reflects this heterogeneity. Respectively, reflections and other trends that are now characteristic of Modern Greek society specially due to the financial crisis of 2010, are that of the low birth rate, the Greek immigration and the following

aging of the population. The fact that on the one hand a lot of Greeks seek opportunities abroad as immigrants and on the other the low birth rate for them who remain in Greece affects the number of the student population respectively.

School classes in Greece have always been indicative of the economic and social differentiation of students. However, in recent years, with the increase in the number of immigration and refugee issues, school classes have become more varied. The school classes are characterized as mixed primarily due to the national-cultural heterogeneity observed between the students but also to their differentiation in terms of abilities, another important factor and indicator of the heterogeneity of the student population. According to Article 6 of the Law 3699/2008, disabled students or with special educational needs may attend a general school classroom if they have mild learning disabilities, or if the level of special educational needs requires so, they can attend general school, notably in case there is no nearest special school, receiving parallel support-co-education from a teacher of special education (EAE) or joining appropriate staffed integration departments (TE) that operate within the framework of general schools.

Second Chance Schools

Secondary schools (SCSs) are afternoon schools (open only in the morning in prisons) of non-formal education within the framework of Lifelong Learning and are aimed at adults 18 and older who have not completed the obligatory education. SDEs are study programs lasting 2 school years and provide the opportunity to those who graduate to obtain an equivalent title with that of lower secondary education (Law 25252/1997). It is a co-financed program by the European Social Fund (ECB) and the Greek State, which is part of the E.P. "Human Resource Development, Education and Lifelong Learning 2014-2020".

Therefore, informal secondary education is provided. However, there are significant differences with formal secondary education. SCSs curriculum is flexible and open, based on the principle of multitasking and not on a centrally designed curriculum. In fact, with the Ministerial Decision Γ2 /

2066/2000 (Government Gazette 943/31/8/2000) the use of school textbooks has been rejected. This element, combined with the open curriculum, allows SDEs teachers "to act as co-producers and co-creators of the educational reality in collaboration with their adult students" (Koutroumba, 2007).

The main features of the operation of SCSs are: the relative autonomy of each school unit, the formation of the curriculum at the school unit level (in the context of the specifications of studies), and the implementation of the principles of adult education. SCSs aim for students is to acquire social skills (learn how to learn, cooperation, communication, mutual respect) and its main goal is the overall development of students and their more complete and effective participation in the social, cultural and economic-labor development.

The teachers who staff SCSs are, like the secondary school teachers, graduates of university specialties. Some of them are permanent staff while the rest, which is the largest in number, is hourly paid personnel. Responsible for the placement of hourly paid staff is the Youth and Lifelong Learning Foundation (INEDIVIM), which is also the responsible body for the continuous professional training of adult educators.

The hourly paid teachers declare their interest with an application following an announcement by INEDIVIM in order to staff SCSs and they are selected based on their classification in evaluation tables per specialty compiled by INEDIVIM. As a main qualification is acknowledged the acquisition of educational adequacy of adult educators of non-formal education, the recognition and certification of which is carried out by the Organization for the Certification of Persons and Vocational Guidance EOPPEP (eoppep.gr/index.php/el/eoppep/actions). Classes corresponding to the classes of formal secondary education are characterized as mixed in terms of student characteristics and in particular the different national-cultural identity and the existence of special educational needs. In fact, as far as foreign registered students are concerned, there is an increase year by year according to a statistical survey of the Hellenic Statistical Authority (ELSTAT, 2019).

Inclusive education in Greece

The rendering of the terms inclusion and inclusive education in Greek is complicated. It is indicative of the fact that the terms are not found in the Greek educational legislation. On the contrary, in Law 4547/2018 for the reorganization of the support structures of primary and secondary education, reference is made to *ενταξιακή* education (UNESCO, 2020), despite the fact that in general the terms *συμπερίληψη* and *συμπεριληπτική* education have been established as more accurately derive the corresponding English terms. Greece's education policy, following Article 24 of the Convention on the Rights of Persons with Disabilities, now emphasizes the right of all students to equal access to education, which is a main pillar of the National Action Plan on the Rights of people with Disabilities (Eurydice, 2021).

The first steps towards inclusive education take place in the early 1990s (Batsiou et al., 2008) and intensify in the following decades (Fyssa et al., 2014) as a result of the need to include children with disabilities in general schools as well as the impact of the conferences of international organizations that promoted as important the defense of educational and humanitarian values (UN, 2006; UNESCO, 2009).

According to international organizations, inclusive education, although rooted in special education (UNESCO, 2005) takes on a broader dimension and concerns the effort to create a school based on parity and meeting the needs of all children regardless of gender, mental or physical fitness, nationality, socioeconomic status, skin color, religion or sexual orientation (UNESCO, 2009). The Ministry of Education therefore adopted an inclusion policy promoted for all vulnerable groups of the student population by creating compensatory and supportive structures in the context of intercultural education and special education (Eurydice, 2021).

Intercultural Education

Greece, being a country of emigration until 1960, for many years relied on the principle of cultural and linguistic homogeneity, marginalizing foreign language groups. This policy continued despite the fact

that the country since 1970 has become a host country for returnees and immigrants. Initially, the policy of assimilation was adopted, which aimed at the educational integration of foreign language students based on their linguistic and cultural deficit (Δαμανάκης, 1998). In this context, reception classes and tutoring departments were established in the public schools of Primary and Secondary education (Law 1404/83, article 45; Law 1894/90). By Law 1865/89, the Schools Abroad established by Presidential Decrees 435/84 and 369/85 are renamed Schools for Repatriates, which aimed at the gradual integration of students in the regular school (Δαμανάκης, 1998). The above-mentioned measures, however, failed to integrate the heterogeneous number of students in the Greek school, a fact that led to criticism and brought to the fore intercultural education in the mid-1980s (Ανδρούσου, 2000). It was now commonly accepted that the school could not ignore the cultural and linguistic background of foreign students (Δαμανάκης, 2003).

Law 2413/96 lays the foundations of intercultural education in Greece (Tsaliki, 2016). The law provided for the creation of intercultural schools with the aim of educational and social integration of different students (Trouki, 2012). The Ministerial Decision of 1999 (Governmental Gazette 10/20 / C1 / 708/1999) ultimately determines the operating framework of reception classes and tutoring departments so that they are compatible with intercultural education. Respectively with Law 3879/10 (article 26) the Educational Priority Zones (ZEP) are introduced in education with the aim of equal integration of foreign students in education.

Finally, Law 4415/16, which is in force until today, defines as the purpose of intercultural education the removal of inequalities and the building of relations between different cultural groups. Also, as the needs require it due to the article of entry of refugees in the country, corresponding issues are regulated. The establishment of Reception Structures for Refugee Education (D.Y.E.P.) is defined.

Of course, in both ZEP and D.Y.E.P. the intensive teaching of Greek as a second language for the subsequent integration of refugee students in the Greek school is favored. And while intercultural

education essentially concerns communication and interaction and therefore presupposes the education not only of the minority groups but primarily the education of the dominant groups, it seems that in Greece the context of intercultural education is entrenched in the teaching of the Greek language to foreign students and therefore is unable to meet the set goals, that is the effectiveness of intercultural relations, the cultivation of tolerance and acceptance towards the different, the interaction of individual with different cultural backgrounds.

Special Education in Greece

In 1981 the first law for Special Education was voted (Law 1143/81). The law introduced the creation of the Directorate of Special Education within the Ministry of Education, state special schools and special classes in ordinary schools, special teachers, special therapists, child psychologists, and special advisers (Vlachou-Balafouti & Zoniou-Sideris, 2000). The criticism against the law 1143/81 (Ksiromeriti, 1997; Vlachou-Balafouti & Zoniou-Sideris, 2000) led to a new law, that of 1566/85, which made special education an integral part of general education and repealed the segregation legislation as well as any separating lines between 'normal' children and children with special educational needs (O' Hanlon, 1993).

Unfortunately, Law 1566/85 was only a paraphrase of the previous law and any innovative proposal or regulation introduced was not easily applicable (Stassinis, 1991; Zoniou-Sideris, 2000). The alignment of the educational policy of Greece with the international tendencies regarding the inclusion started with the law 2817/2000 in which the term special needs is replaced with the term special educational needs and the first university department of special education is established. However, Law 3699/2008 is a continuation of the previous one and despite the positive points of the law, weaknesses are observed here as well, mainly the removal of children with special educational needs from the general class through their attendance in the integration departments (Zoniou-Sideris, 2000; Zoniou-Sideris et al., 2005).

Next are the supplementary laws 4115/2013, 4136/2013, 4368/2016, 4415/2016, 4452/2017, 4547/2018, 4589/2019, 4638/2019, 4713/2020, in the context of the Strategic Action Plan for the Equal Access of Students with Disabilities which includes thirteen operational objectives:

- The review of the current legislative framework
- The adequate allocation of human and material resources
- The increase of physical and digital accessibility
- The training of the staff in issues of differentiated teaching
- The upgrading of the evaluation and support services
- The promotion of integration education programs
- The strengthening of both early educational intervention and vocational education
- The equal access to Lifelong learning and higher education
- The evaluation of the operation of the institution of the integration classes and parallel support.

(Eurydice, 2021)

Universal Design for Learning (UDL) in Greece

The importance of UDL was recognized by the Greek state and an informed part of the educational community that tried to integrate the UDL guidelines in the educational process. In fact, especially for special education, the Ministry of Education recognized the key role of UDL already in 2008 in the law on special education (Law 3699/2008) but also later with the relevant law of 2016 (Law 4415/2016). Therefore, according to this legislation, the application of the principles of Design for all to ensure universal accessibility in education is considered mandatory.

Law 4415/2016 (number 1, paragraphs 7 & 8) states that "Universal Design or Design for All is the systematic way of designing and providing educational tools and services so that they can be used by students to the maximum extent possible of their functional capabilities. Universal Design includes

educational tools and services that are: a) directly accessible to students with disabilities or special educational needs (without requiring assistive technologies) and b) compatible in terms of their interoperability with assistive technologies. Universal Learning Planning is the scientific framework of educational practice which: a) provides flexibility in the ways of presenting educational information, in the ways in which students respond or demonstrate their knowledge and skills and in the ways of their involvement in the learning process; and (b) reduce barriers to teaching, provide appropriate assistance, facilities and challenges and support the achievement of high expectations for all students, including those with disabilities or special educational needs".

The Institute for Educational Policy (IEP), aiming at the implementation of integration policies (UNESCO, 2007), in the context of the implementation of ESPA 2014-220 projects, proceeded to the design of the project entitled "Universal Design and Development of Accessible Digital Educational Material", which is continuation of the Act "Design and development of accessible educational and supervisory material for students with disabilities" (<http://prosvasimo.gr/el>).

Also, long before the official UDL-related institutional decisions of the official state, the UDL was studied by educational institutions and in addition to the relevant reports at conferences; it was designed and implemented with EU funding. "project" and "network", known as UDLnet in the context of the "lifelong learning" program of the Comenius program with coordinator for Greece the schools Greek-German Education (gr.udlnet-project.eu). On the website of the network entitled UDLnet we find the subtitles "*A framework for Addressing Learner Variability*", "*The way people learn is as unique as their fingerprints*" and information on its operation. Specifically, the home page states that: *First and foremost UDLnet-Universal Design for Learning aims to collect and demonstrate ways to effectively use the UDL framework. The network will promote community building between educational institutions all over Europe and empower them to use, share and exploit accessible learning materials from a variety of*

educational resources. In addition, it will demonstrate the potential of eLearning resources within the context of the UDL approach.

The UDLnet Inventory and a social platform will be developed where teachers, students, parents and other community members will be able to find and adapt accessible UDL eLearning resources on their topics of interest and needs. Finally, it will assess the impact of inclusive tools, practices and teaching materials and document the whole process in the UDLnet Best Practice Guidelines.

(gr.udlnet-project.eu)

UDL and online learning

During the COVID-19 pandemic, a rapid online teaching and learning transition become a common reality for many countries among them and Greece (Bartlett, 2020; UNESCO, 2021). The COVID-19 pandemic has created new circumstances and has accordingly affected schools and educational institutes. It led to necessary closures as well as to online learning rise recognizing it as the only feasible measure for the continuum of education. As a result education reality has changed dramatically in accordance with the whole reality. The term “online learning” is refers to various formats of online delivery, including fully online instruction, blended instruction, as well as hybrid modes (Singh & Thurman, 2019). Online learning can therefore include asynchronous and synchronous modalities (Rao, 2021).

As it is unlikely to return to the past way of life, the consequences of COVID-19 might stay (Daniel, 2020). The adoption of online learning will probably continue to persist post-pandemic but it should be adjusted to educational and pedagogical terms in order to be an effective and quality way of education. It should follow the relevant policy, this of inclusion, that is not only a social imperative but also a political issue for Greece (EURYDICE, 2021). We seek for inclusive classes where equity and fair are the dominant axioms.

In the context of online learning Universal Design for Learning (UDL) comes to the fore as it is an educational framework that embraces inclusion maximizing learning and minimizing barriers for all

students (Bernacchio & Mullen, 2007; Rose & Mayer, 2008). UDL creates fair and equity providing multiple equal opportunities for all students according their needs (Black, et al., 2014). In fact, UDL, according the relevant literature (Coombs, 2010; He, 2014; Lancaster, 2008), responds to the challenges of distance learning and can be implemented effectively not only to face-to-face environments but as well in entirely digital environments of education. Of course, UDL cannot address all the obstacles of online learning but can motivate learners to achieve the learning goals in a more effective or enjoyable way (Al-Azawei, et al., 2016).

The potential and effectiveness of designing accessible curricula by using online learning has been discussed in literature concluding that online learning ought to be blended with pedagogical contexts in order to ensure access for all students and meeting their needs (Bryan Bongey et al., 2010; Seale & Cooper, 2010). As far as UDL is concerned, many researchers identify the positive effect of incorporating educational technologies on designing and implementing UDL courses (Bühler & Fisseler, 2007; CAST, 2011; He, 2014; Kumar & Wideman, 2014; Rose & Strangman, 2007; *Smith & Harrey, 2014*). Technology based environments and digital tools provide effective means to put UDL into action (Meyer & Rose, 2005; Ok & Rao, 2019). And vice versa, UDL based blended e-courses can lead to positive effects for the learning procedure and the students as well (Dallas, et al., 2016; Morra & Reynolds, 2010).

Concerns

The year 1994 was a milestone in educational affairs due to the Salamanca Declaration (UNESCO, 1994), which turned EU members towards the adoption of educational policies and the implementation of legislative frameworks for the reorganization of the school so that it includes all children and adults providing high quality equal education. For the Greek educational system, the inclusion of every child regardless of differentiating characteristics is a requirement. In correspondence with the policy of other countries and for Greece, inclusion is a matter of policy and not just a social requirement and that is why it is a key pillar and strategic goal of the government program for education (EURYDICE, 2020).

In fact, regarding the Greek reality, although the inclusion is a strategic goal of the government program for education (EURYDICE, 2020) and already from the year 2008 in the law on special education (Law 3699/2008) there is an explicit reference to the obligation for implementation of the UDL so as to ensure access to education for all and equal opportunities for education, the reality is far from the relevant declarations and the corresponding legal framework.

On the one hand, the existence of closed Curricula is a key obstacle to the implementation of the UDL. On the other hand, the material and technical infrastructure in many schools is incomplete and is not in line with the philosophy of universal design, thus creating additional weight and obstacles for the teacher who will try to implement the UDL. The absence of training programs for teachers by the competent bodies on issues of pedagogical and didactic methodology, a fact that is evidenced by relevant research (EC, 2019; Samuel et al, 2017), is also an inhibitory factor in the implementation of universal lesson planning.

So any application seems to lie mainly at the disposal of the teacher who will decide to engage in such a process devoting many hours and effort. The lack of relevant knowledge in combination with the lack of examples of application in the Greek educational data exacerbates the degree of difficulty. Respectively, meeting the educational needs of staff with teachers in a "replacement" status does not favor cooperation in educational communities (OECD, 2018) and does not provide the necessary time to explore and organize the training framework according to the UDL.

Think about how many teachers do not know in time at the beginning of the school year which school or which schools they will serve.

In conclusion, the implementation of UDL presupposes:

- Curricula shaped according to the philosophy of UDL
- Qualified teaching staff
- Means-materials-infrastructures that ensure access, equality, diversity, flexibility

- Collaboration.

Of course, the non-fulfillment of the above conditions should not be a reason for the teacher who wants it and has the strength to know the philosophy of UDL, not to adopt and apply it. Of course, he will be invited to devote a lot of time and personal effort. It certainly makes the task more difficult, but not impossible. Even if we keep in mind that even the fragmentary application of UDL in certain didactic units or subjects only benefits can provide and certainly a first basis for its wider application.

CHAPTER 4: RESEARCH METHODOLOGY

Research methodology

The research is essentially an attempt to explore the views of a sample of teachers on whether UDL can be applied to formal, general education (secondary and adults' education) by promoting intercultural and inclusive education respectively. In order to ensure validity and reliability, methodological triangulation was chosen as a research technique combining qualitative and quantitative research tools.

Regarding the quantitative research, the study population is teachers regardless of specialty of formal secondary education and adult education, who serve in general Gymnasiums / Lyceums or SCSs. The required permits have been obtained from the competent services (IEP / DIRECTORATE OF LIFELONG LEARNING). The method of selecting the sample units is governed by the laws of probability as the sample is a representative group of the target population. The sampling approach is followed with probability and specifically the simple random sampling. The sample size refers to 225 people. The selection criterion of the sample lies in the feature of working as a teacher in secondary education (generally Gymnasiums / Lyceums) and adult education (SCSs). The achievement of the possibility for generalization of the conclusions to the wider population is also depended on the size of the sample.

In terms of qualitative research, sampling is appropriate, it is homogeneous sampling (common feature of general education teachers) and theory sampling since the sample is taken because it can help to formulate and support a theory. The number of the sample is 31 people. A small number of participants are deliberately selected in order to ensure detailed data collection and in-depth analysis.

The research tools (quantitative and qualitative) were intended to be used during the same period but not complementary to each other. That is, every teacher who participated in the quantitative research was not obliged to participate in the qualitative research without of course being prohibited from participating in both. The research tools (quantitative and qualitative) were intended to be used during

the same period but not complementary to each other. That is, every teacher who participated in the quantitative research was not obliged to participate in the qualitative research without of course being prohibited from participating in both.

It is estimated that the teachers who participated in the quantitative research did not dedicate more than 40 minutes. Accordingly, the participants in quality research dedicated approximately 40 minutes, whether it was an interview or a reflection diary. In the last case was it was deemed necessary to inform and guide the teachers who did not know how to apply UDL. So, there was a two-hour briefing via Skype and alongside a relevant educational material, created by the researchers during relevant training through the largest Greek learning community, the scientific association for the promotion of educational innovation E.E.P.EK., was given to the participants.

Questionnaire

Regarding the research tools, as a quantitative tool is used the questionnaire which was distributed electronically to the candidates of the schools for which the IEP and the Directorate of Lifelong Learning approved the conduct of the research. For the questionnaire, simple random sampling was chosen. It is about a web-based surveying on the advanced online *survey* system of lime survey (<https://www.limesurvey.org/>). After the questionnaire's initial design and before its distribution, issues of validity and reliability were examined. More specific we tried to access the validity of our questionnaire through face validity in order to detect errors and proceed to modifications in a quick way. Then the questionnaire was distributed to a convenience sample (25 respondents) in order to confirm whether

- The terms used are easy to understand
- The order of the questions does not cause tendencies of possible confusion
- The wording of the questions allows the collection of the desired data
- The estimated time to complete the questionnaire
- The reliability of the questionnaire.

The first sector of the questionnaire included seven questions of demographic interest, while the second one titled “*The views of secondary school teachers on UDL and its contribution to the promotion of intercultural and inclusive education*” included twenty-five questions. The questionnaire consisted of questions that were closed, of single or multiple choices, with predefined answers leading to data collection.

Through our questionnaire, we sought to draw conclusions regarding the following:

- Does the implementation of innovative practices depend on factors such as gender, age, level of education or specialization in pedagogical issues?
- Do teachers apply intercultural, inclusive education or UDL?
- What obstacles do they encounter in any application?
- What are the results of any applications?
- Is there a correlation between intercultural education, inclusive and UDL?
- Do they believe that intercultural and inclusive education is promoted in the context of the implementation of UDL?
- To what extent do teachers believe that the implementation of UDL is possible and promotes intercultural and inclusive education respectively in digital learning environments?

Reflective journals

The current study adopts a case study methodology that investigates teachers' written views through reflective journals. We used qualitative interpretive research to understand the context in which participants think and act (Denzin & Lincoln, 2000; Maxwell, 1996). Based on social constructivism (Burr, 1995) and the reflective cycle Gibbs, 1988), we designed two reflective journal templates (Appendix) with some guiding questions to probe teachers' reflections on the implementation of UDL in Greek secondary education and adult education (SCSs). We tried, through reflective journals, to show

teachers' attitudes towards UDL, their feelings, the difficulties they faced, and the results of every implementation. Therefore, teachers ought to fill up two journals, one during the design process of their instruction and another after the implementation. So, each participant had to complete two forms, one during the design of a teaching in accordance with the principles of UDL and one during its implementation. Through the analysis of the data of the qualitative research, the aim is to draw conclusions about the necessity of the implementation of UDL, its results and the promotion of intercultural and inclusive education as one of the results.

Interview

In our research as a qualitative tool we also chose the interview as we aimed to investigate in depth teachers' attitudes towards UDL. It is a personal, semi-structured interview with open-ended questions and the required fireballs. The interview was recorded and the researcher was taking notes at the same time. Of course before the interview the participants were informed about the research and their consent was secured (signed consent form). We ensured the relevant permits from the competent bodies, i.e. IEP (Educational Policy Institute) and INEDIVIM (Foundation for Youth and Lifelong Learning). Four of the participants agreed to record the interview which took place via social communication means (messenger, Skype) while the two others agreed to participate only by answering the questions in writing. The interviews that were tape recorded afterward were transcribed. Some of the participants' responses are quoted using the necessary pseudonyms in the main body of our study in order to illustrate significant points of our research. All the collected data were coded and analyzed to themes that in fact answer our main question "which are teachers' attitudes towards UDL?"

Triangulation of research

In order to develop a comprehensive understanding of our main topic, thus the correlation of UDL with intercultural and inclusive education and whether the first one promotes the other two in the context

of the Greek educational system, we chose triangulation and more specific methodological triangulation. So, we decided to utilize more than one data collection method in order to develop different datasets which were compared to each other and led us to a convergence (Nightingale, 2020). Methodological triangulation is in fact a technique to analyze data using different methods and even combining qualitative and quantitative approaches in a single study (Cobb, 2000; Lincoln & Guba, 2000) to enhance validity, a more in-depth picture of a research topic and ensure as well a better understanding through a variety of different perspectives (Nightingale, 2020). Data collection through different methods helps the researcher to understand and analyze the issue in question more comprehensively. Furthermore, it is achieved a limitation as far as the disadvantages of each method are concerned and greater credibility is attributed to the research data. The intent of using triangulation is to decrease the deficiency of a single strategy increasing the ability to interpret the findings (Thurnmond, 2001). The benefits of triangulation include “increasing confidence in research data, creating innovative ways of understanding a phenomenon, revealing unique findings, challenging or integrating theories, and providing a clearer understanding of the problem” (Thurnmond, 2001, p. 254). It is a validation procedure in order to ensure the accuracy of our research (Creswell, 2019). In a few words, we decided to use this technique as a form of cross-checking in order to support the main topic of our study.

Ethics issues

The survey is aimed at adults and teachers in particular and is conducted on condition of anonymity. Regarding ethical issues, it is explicitly stated that the anonymity of the participants and their protection of their sensitive personal data is ensured in accordance with the current legislation, as well the possibility of terminating their participation at any stage of the investigation, and as far as their protection is concerned in case of exposure to any risk in the context of their participation in the investigation process is guaranteed. Especially for the participants in the qualitative research there was relevant information before the conduct in which all the above were stated written. Regarding the

recording of the interview, participants were asked to sign a relevant consent document. All documents are confidential under the responsibility of the researcher and cannot be used for any other purpose than this research.

The research is prepared in the framework of a doctoral dissertation at the Department of Social Sciences and Law, in the Department of Education of the University of Cordoba, by the researcher and PhD Candidate Markou Paraskevi. The desired schedule of the research in the educational units under the responsibility of the Ministry of Education is set from 01/03/21 to 30/06/21. During this period the data were collected with the methods analyzed above.

From the overall research we are able to come to some conclusions and the corresponding interventions that promote education and science in general. This is because this is a research that takes place for the first time in the Greek data, a multilevel research on an issue of key importance for education in Greece. We aim at an education that is accessible to the entire student population, equal and effective. So, how can this aim become a goal and a reality? UDL is concluded as an answer to the above question. However, it should be taken into account that intercultural and inclusive education are two models of education that are impossible to be absent from the Greek educational system given the factors that make the student population heterogeneous. So can UDL ensure the promotion of these models? Have the required conditions for its application been formulated? What are the results of its application in the general formal education of secondary and adult education? What could be done to make its implementation effective?

The above questions are answered through the investigation of the views and applications of UDL by the teachers of the sample and it is attempt, as the sample reaches the desired representative number, the consequent generalization.

The sample of the study

To select the sample we addressed to secondary schools and Second Chance Schools having received the relevant permits from the competent bodies, i.e. IEP (Educational Policy Institute) and INEDIVIM (Foundation for Youth and Lifelong Learning). To be more specific, a total of 101 secondary schools and 19 SCSs, from the regional units of Attica, Peloponnese, Central Macedonia and Central Greece, participated in the survey.

The sample of the quantitative research was made up of a total of 225 teachers of secondary education that work either in lower secondary education (gymnasium), either in upper secondary education (lyceum) or in SCSs. Of these, 149 teachers serve in general secondary education, 38 in special education as parallel support or in integration departments, and other 38 serve in SCSs.

Table 3. Demographic Summary of Study Participants (questionnaire)

Sample data			
Total Sample		n=225	100%
		n	%
Gender	Women	162	72%
	Men	63	28%
Age	20-45	131	59,2%
	Over 45	94	41,8%
Teacher of	General education	149	66,2%
	Special education	38	16,9%
	SCSs	38	16,9%
Educational level	Diploma	78	34,7%
	Master's degree	130	57,8%
	Doctoral	17	7,6%

As far as the qualitative research is concerned and more specific the reflection journals, twenty-five participants consented and participated voluntarily in the current study regardless of gender and specialty. Fifteen of them were secondary education teachers, and the other ten were teachers of SCSs. Seven of the first 15 people were teachers of special education. We ensured that the details were anonymous, confidential, and used only for research purposes. The researchers received the necessary permission to conduct the study from the Institution of Educational Policy in Greece. Participants were informed about the voluntary nature of the research and that their responses would be anonymous and confidential. Thus, real names were replaced by a number in all journal entries. In addition, participants were informed of their right to withdraw from the study at any time and for any reason.

The participants were requested to write two anonymous reflective journals. They were to write in one while they scheduled their lesson plan and in the other after implementing their specific program. There was a restriction to include and implement a lesson plan that adopted the three basic principles of UDL. Since the participants were not familiar with writing reflective journals, there was a provision for them to be informed extensively by the researcher before the commencement of the formal procedure. Participants answered honestly and were unbiased, since they were fully informed by the researcher and understood the importance of the survey.

Table 4. Demographic Summary of Study Participants (reflection journals)

Pseudonym	Age	Specialty	Knowledge of UDL	Training in UDL	UDL implementation
1	40	Special education	YES	YES	YES
2	43	Special education	YES	NO	For the first time
3	42	Special education	YES	YES	For the first time
4	35	Special education	YES	YES	YES
5	37	Special education	YES	YES	YES
6	34	Special education	YES	YES	YES

7	48	Special education	YES	NO	For the first time
8	45	Teachers of SCSs	YES	NO	For the first time
9	46	Teachers of SCSs	YES	NO	For the first time
10	39	Teachers of SCSs	YES	YES	YES
11	41	Teachers of SCSs	YES	NO	For the first time
12	37	Teachers of SCSs	YES	YES	YES
13	40	Teachers of SCSs	YES	NO	YES
14	36	Teachers of SCSs	YES	YES	YES
15	46	Teachers of SCSs	YES	NO	For the first time
16	43	Teachers of SCSs	YES	NO	For the first time
17	40	Teachers of SCSs	YES	YES	YES
18	39	General education	YES	YES	YES
19	47	General education	YES	NO	For the first time
20	42	General education	YES	NO	For the first time
21	50	General education	YES	NO	For the first time
22	53	General education	YES	NO	For the first time
23	55	General education	YES	NO	For the first time
24	56	General education	YES	NO	For the first time
25	54	General education	YES	NO	For the first time

As regards the interview research, our sample was restricted to six participants, four women and two men, as the special conditions of Covid-19 do not favored the communication with the teachers of the schools we had permission to conduct our research. The majority of the sample is aged between 20 to 45 years old. Two teachers serve at the general secondary education, three at special education of the same level and four at Second Chance Schools (SCSs). Three teachers, who serve at SCSs, serve in parallel in general or special secondary education. Four of them are holders of a master degree, while one has got a doctoral degree and only one is university degree graduate. The teachers who participated in the research come from the following specialties: one sociologist, two mathematicians and three philologists.

Table 5. Demographics of the sample (interview)

Gender	Women	4
	Men	2
Age	20-45	5
	Over 45	1
Teachers of	General education	2
	Special education	3
	SCSs	4
Educational level	Academic degree	1
	Master degree	4
	Doctoral degree	1

Data analysis

In the case of the quantitative research we used the statistical package of SPSS (Statistical Package for Social Sciences), 25 edition, to encode the data and analyze / interpret the results. We also used descriptive statistics to present the data of the statistic research as well as inferential statistics to analyze

and conduct relevant conclusions. We preceded to independence check (χ^2) and binary logistic to verify any results. The presentation of the quantitative data was performed through graphs.

As regards the reflection journals, we analyzed the data using a comparative method to emerge themes (Creswell, 2013). We read the teacher's notes and compared them to code new data or reinforce existing codes (Creswell, 2013). For example, in the question 'planning evaluation' of the first reflective journal, the participants referred to problems and obstacles they had to face. Therefore, we coded this information as relevant data by comparing the corresponding responses from all the participants. Examining these codes, we grouped them into categories and organized the related themes. In this example, the theme was about difficulties in implementing UDL.

In conclusion, guided by research questions and Gibb's reflective cycle (1988), reflective journals were analyzed using thematic content analysis (Radnor, 2001). The analyzed data were quoted and coded. The responses were analyzed and interpreted according to the steps proposed by Creswell and Guetterman (2019). The different specialties of the sample were also taken into account. A comparison was made between journal notes based on the teacher group. For instance, was there any differentiation of attitudes among teachers of general education, special education, and teachers of SCSs?

According the interviews, the tape recorded interviews were transcribed. All the interviews were coded and the themes were emerged. The data were analyzed by hand (hand analysis of qualitative data). After the preliminary exploratory analysis in order to have a general view of the collected data we proceeded to the coding process using a comparative method (Creswell, 2013). We read teachers' interviews one by one and we compared them to code new data or reinforce existing codes (Creswell, 2013). Examining these codes we made groups of them into categories and organized the corresponding themes. Analyzed data were quoted and coded. Responses were analyzed and interpreted according the steps that Creswell and Guetterman (2019) suggest. We presented our findings through a comparative table as well as quoting excerpts from the interview data. We finished with the interpretation of the

results based on our personal judgment in combination with comparisons between the findings and the relevant literature. Our aim was to confirm through the interview results the corresponding results of the quantitative research.

Implications and limitations

Our survey was completed according to the original schedule without any problems. The candidates were informed about the research (information protocol) as well as about issues of anonymity and security of personal data (Cohen et al, 2008). The protocol and the questionnaire link were sent via email as an attached file accompanied by a brief information material related to the UDL philosophy. We considered necessary to send this material in order to have answers to basic questions, e.g. necessity of UDL even by respondents who did not know the term. The participants answered the questionnaires, the interview questions, implemented UDL and filled the relevant reflective journals, from 01/03/21 to 30/06/21 without any significant problem.

However, a major limitation of the current survey was the special health conditions and therefore the relevant social policies due to COVID -19. For the first time schools at all levels were working only in a digital environment for an extended period (6 months, school year 2020-2021). So, it was justifiably difficult to find a larger sample of teachers willing to participate in our research mainly due to the fatigue of the new circumstances (online teaching). Most teachers worked online for the first time and found it more difficult to implement a new philosophy such as UDL in a digital environment. Another important limitation, unrelated to health conditions, was the difficulty to find a sufficient number of participants who already knew UDL without having any certification, as this was a prerequisite for their participation in the qualitative research part and more specific in the reflection journals. Thus , the small sample size does not allow generalizations to the wider population of teachers which is much larger. So, we avoid generalization for reliability reasons.

Findings

The research data demonstrate teachers' attitudes towards UDL, inclusive and intercultural education, which is the main issue of our research.

On the one hand, we find out that there is a difficulty in adoption and implementation of new educational philosophies by teachers. It is worth noting that most of them (98%) know or have heard about intercultural education, while to a lesser extent (66%) inclusive education and UDL (55%). The percentage of 55% corresponds to 123 participants from the total number of 225.

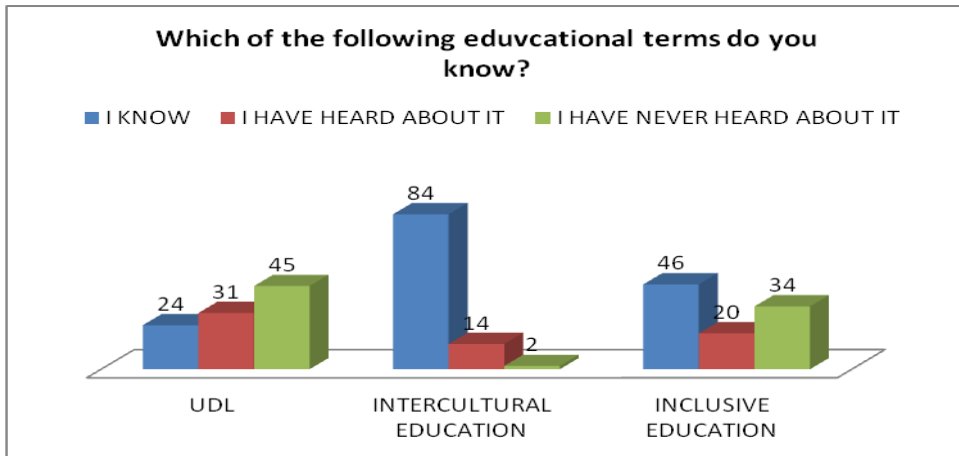


Fig.9 Teachers' knowledge for UDL, intercultural and inclusive education

Despite the fact that intercultural education is better known in educational circles only the 42% of the sample states that implements intercultural education in teaching while the other 58% no.

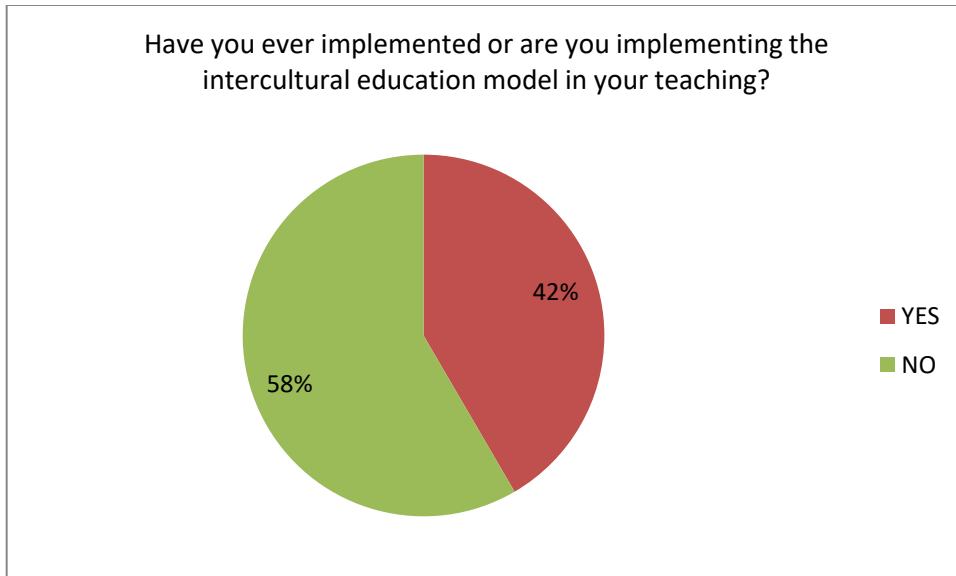


Fig.10 Teachers' percentage of implementing intercultural education

In the question *“To what extent do you think that intercultural education is a necessity for the modern school?”* 204 of the participants answered positively while only 19 people maintained a neutral attitude and 2 a negative one.

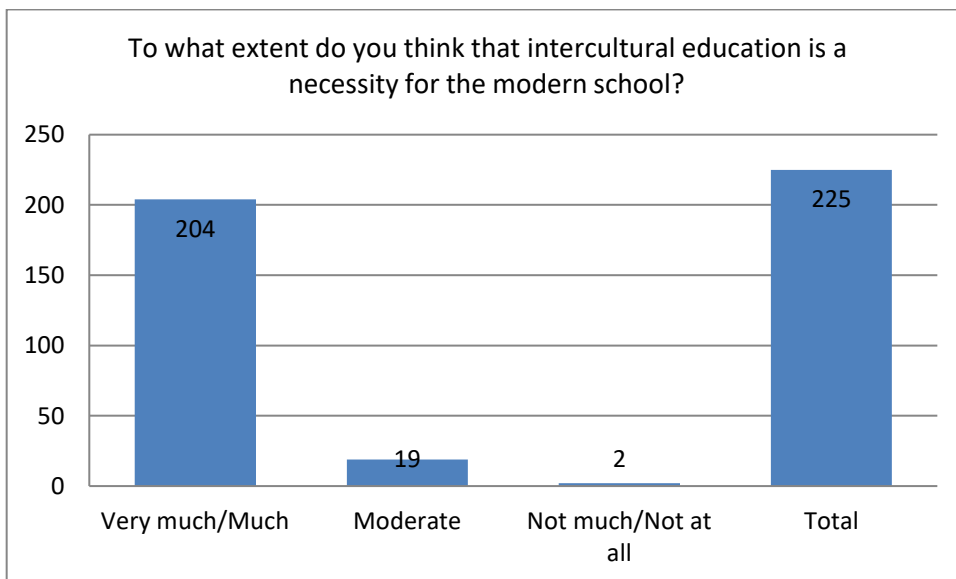


Fig.11 Intercultural education as a necessity

The three main factors that have a negative and deterrent effect on the implementation of intercultural education are schools' insufficient equipment, the current curricula as well as the additional preparation time required as the total number of participants claims.

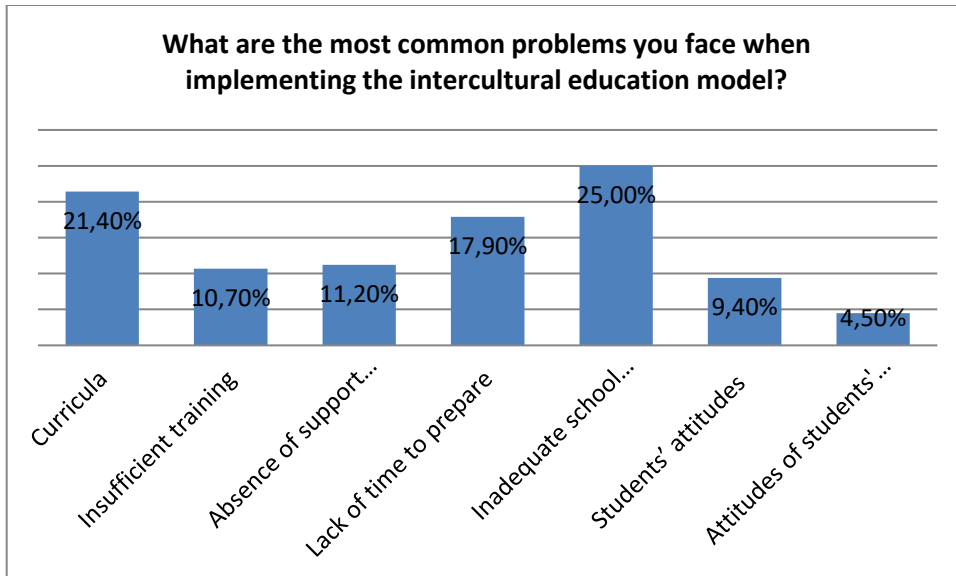


Fig.12 Obstacles in implementing intercultural education

From the total number of the teachers who know inclusive education (148 in number) only the 45% implements inclusive education while the majority answers negatively.

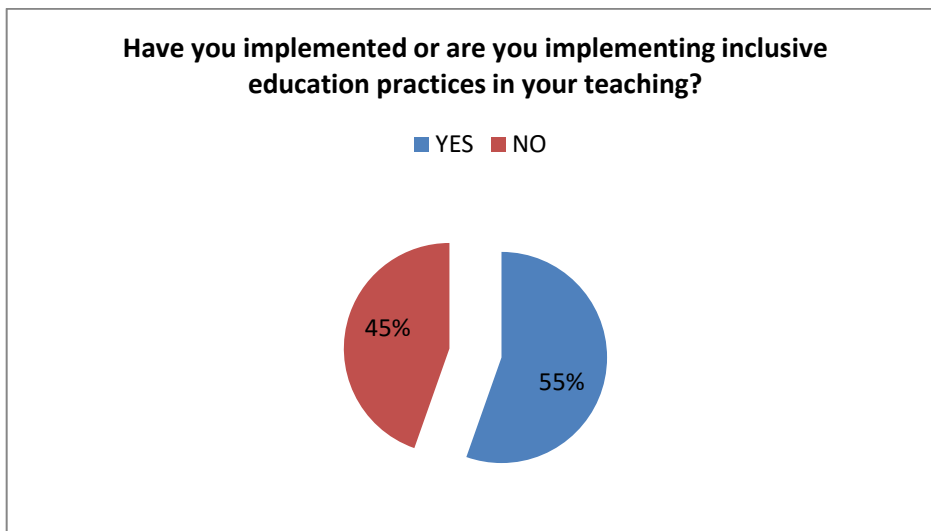


Fig.13 Teachers' percentage of implementing inclusive education

Even though the majority of the sample does not apply inclusive education, inclusive education is recognized as a necessity in modern school by the 86,7% of the total sample.

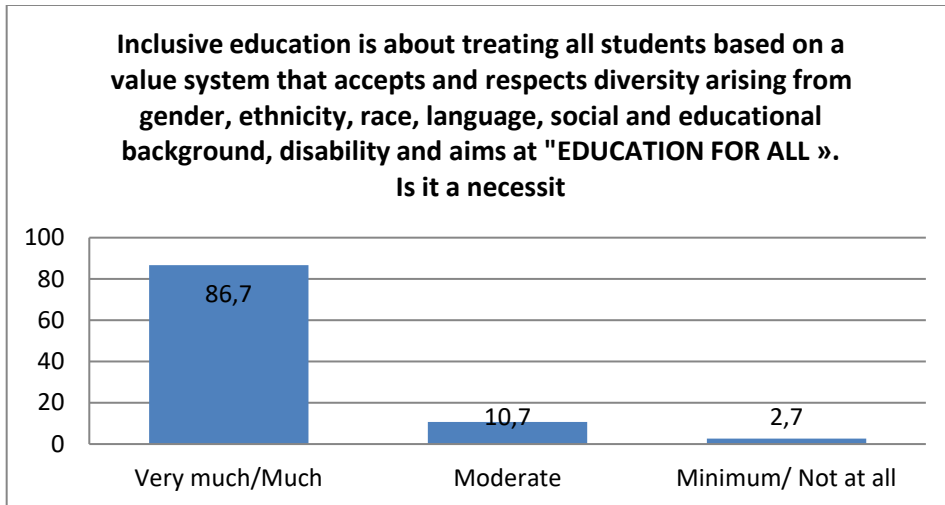


Fig.14 Inclusive education as a necessity

As far as the obstacles in implementing inclusive education, the inadequate school infrastructure, the current Curricula and the further required time for preparation are mentioned as the main ones.

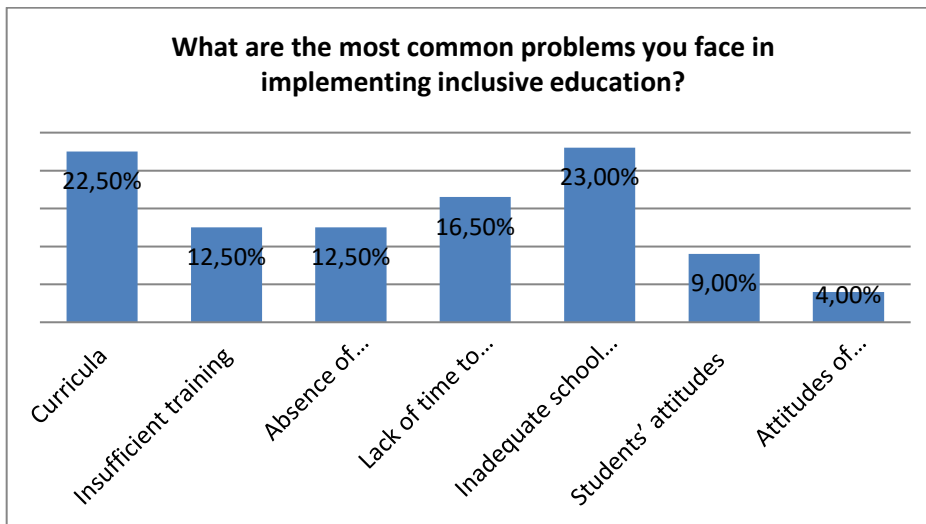


Fig.15 Obstacles in implementing inclusive education

The 123 participants who knew UDL were asked whether they have ever implemented UDL in the past or during the current time period, this of school closure due to COVID-19 (school year of 2020-2021). The 36% of them (44 participants) answered positively while the other 64% (79 participants) responded negatively.

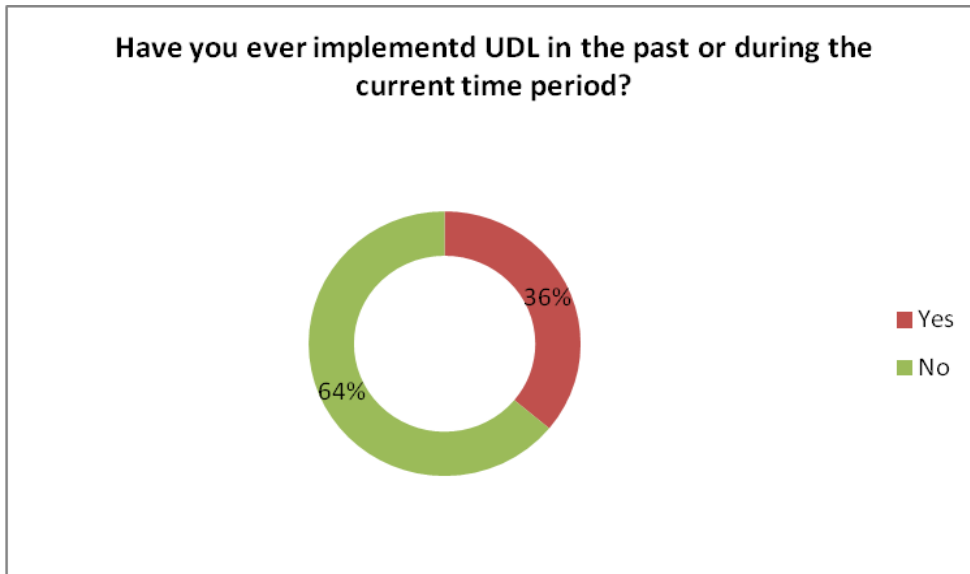


Fig.16 Teachers’ percentage of implementing UDL

On the other hand, despite the fact that only the 55% of the sample knows/has heard about UDL, an overwhelming number, 201 out of 225 teachers, believes that UDL is an educational necessity against 22 teachers who answer neutrally and 2 who do not consider it necessary. Their opinion is based on the information material that was at their disposal from the first moment and they were asked to study it before completing the questionnaire.

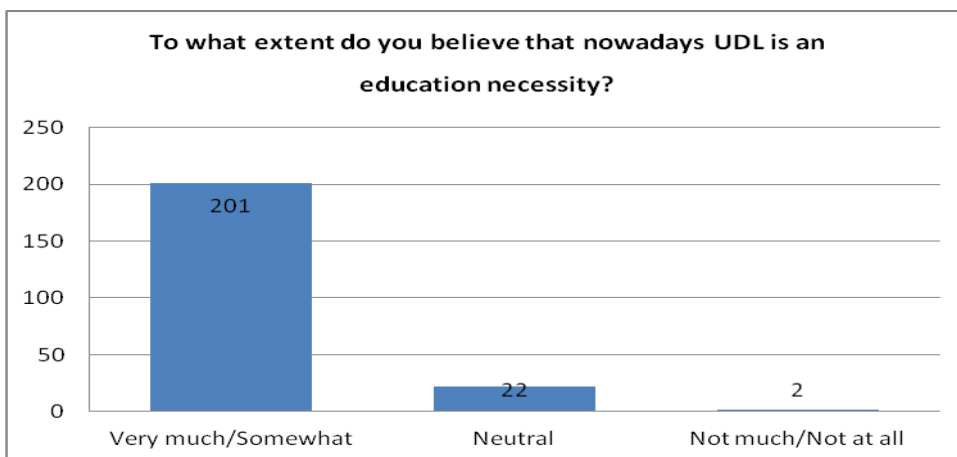


Fig.17 UDL as an education necessity

Despite that fact that not all the participants know UDL and consequently are not able to implement it even in a physical class, they all asked to answer the question “Do you consider UDL implementation feasible in the context of online learning?” with the rationale that it is an educational

philosophy and as they are aware of digital learning environments due to current circumstances they can form a relevant opinion from their experience. From the total number of 225 participants, 121 responded positively while the other 104 negatively.

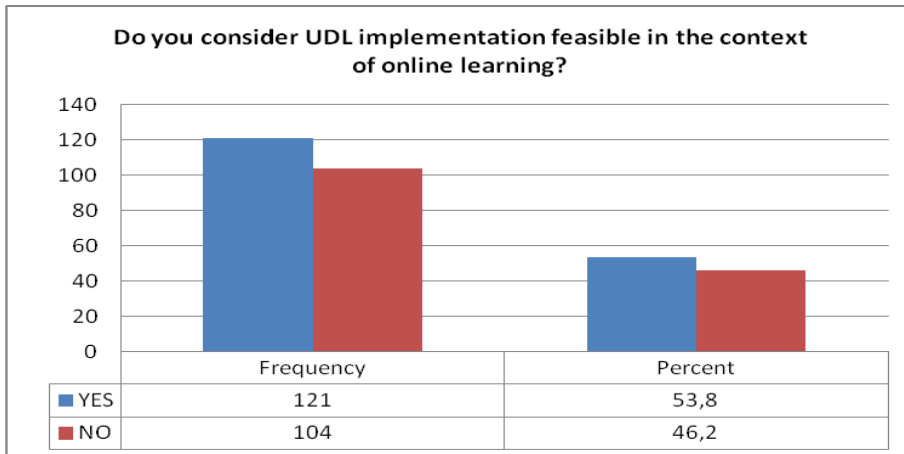


Fig.18 UDL in online learning

According to teachers' answers on the question *"What are the most common obstacles you encountered/ face during UDL implementation?"* the majority of them claims that the insufficient school infrastructure (facilities, technological equipment) and the current Curricula are the main difficulties they face. *"Lack of time to prepare"*, *"Lack of training"*, *"Absence of support (from PEKES / PRINCIPAL OF SCHOOL UNIT / COLLEAGUES)"*, follow as answers in the above question. A smaller percentage refers to students' attitudes or their guardians' attitudes as a difficulty in implementing UDL.

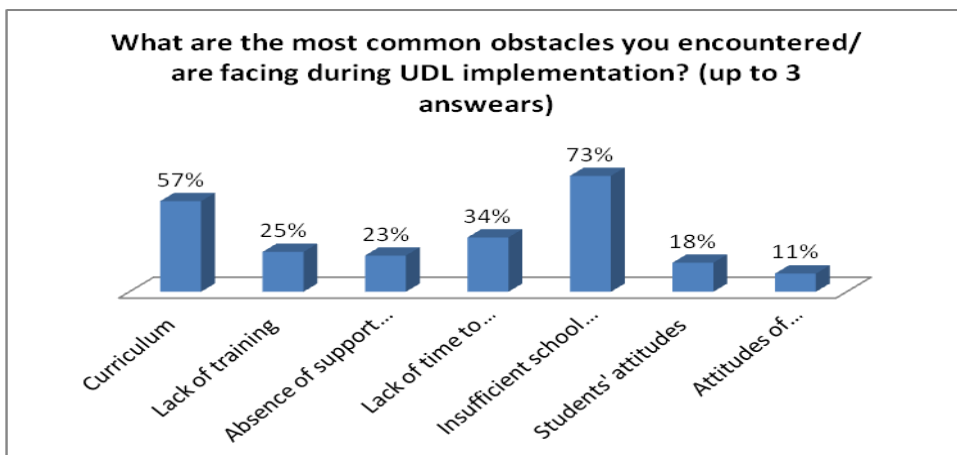


Fig.19 Obstacles in implementing UDL

The 44 teachers, who have implemented UDL, answered the question whether the application of UDL provides them with personal satisfaction and a sense of self-esteem. In percentages, the 84, 1% claimed that yes, UDL implementation gives them satisfaction and a high sense of self-worth.

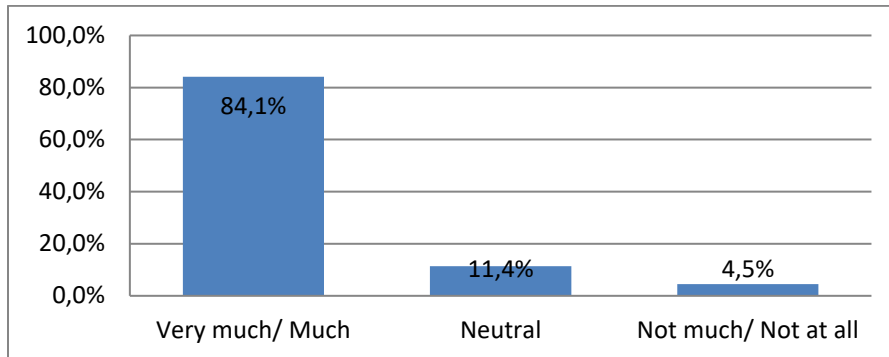


Fig.20 Teachers' personal satisfaction by implementing UDL

Likewise, as regards UDL effect on the students, positive data were drawn from the teachers' responses to the relevant question "Does the implementation of UDL contribute to the motivation/participation of all students and improve their performance?". The majority (81, 8%) claimed that UDL implementation contributes to students' motivation and participation as well as to the improvement of their performance.

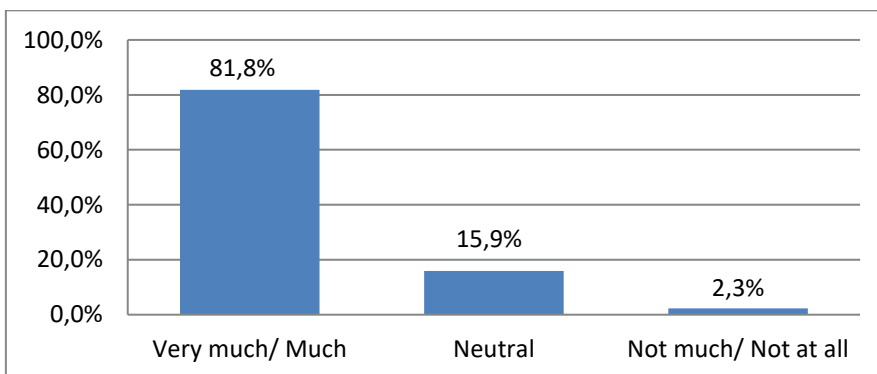


Fig.21 Students' motivation/participation and performance

Especially for SEND students and students who are differentiated in the term of ethnicity, the 89% of the teachers that implemented UDL notes a positive effect as far as participation and performance are concerned.

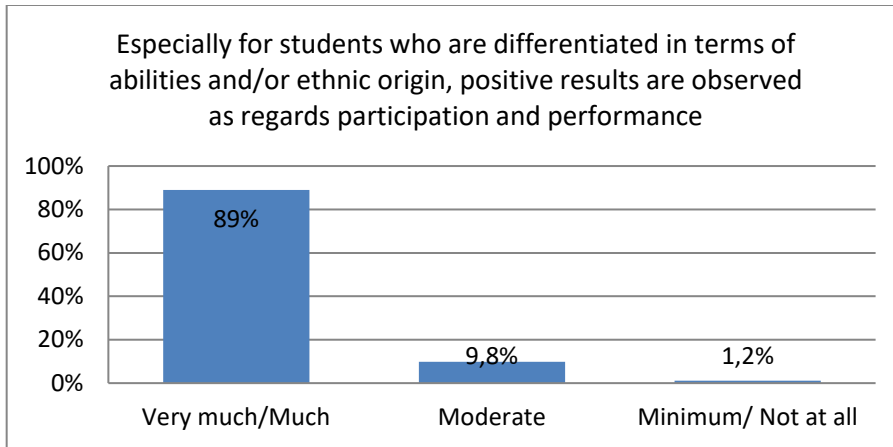


Fig.22 SEND and foreign students' participation/performance

As far as the promotion of cooperation and development of a closer relationship between students, teachers that implement UDL note that UDL has a positive effect on it. However, 61% consider that there is no difference in this parameter from the implementation of UDL.

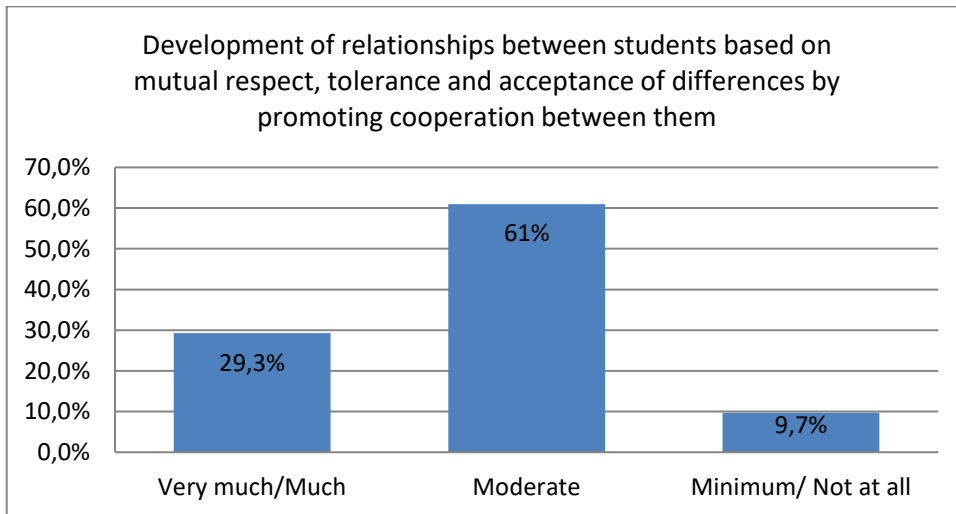


Fig.23 Cooperation between students

Accordingly, we asked all the participants whether the terms UDL, intercultural education and inclusive education are correlated and whether they believe and in what extent that UDL can foster the other two even in the context of distance learning. As regards online learning the 49,3% responded much, the 26,7% moderate and the 24% not much/not at all.

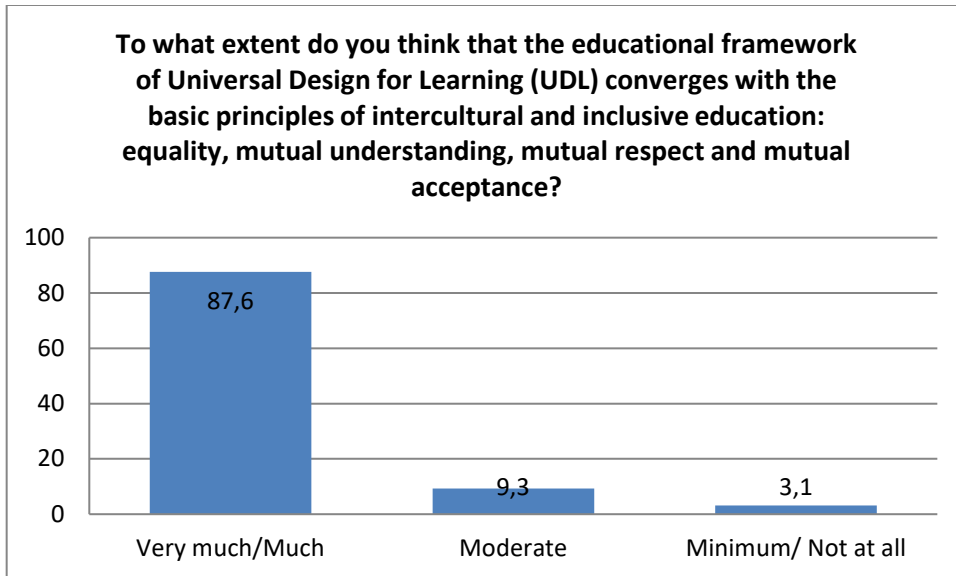


Fig.24 Convergence between UDL, intercultural and inclusive education

In the question *'To what extent do you think that UDL promotes, through its implementation, intercultural and inclusive education respectively?'* the high percentage of 86,2% responded positively.

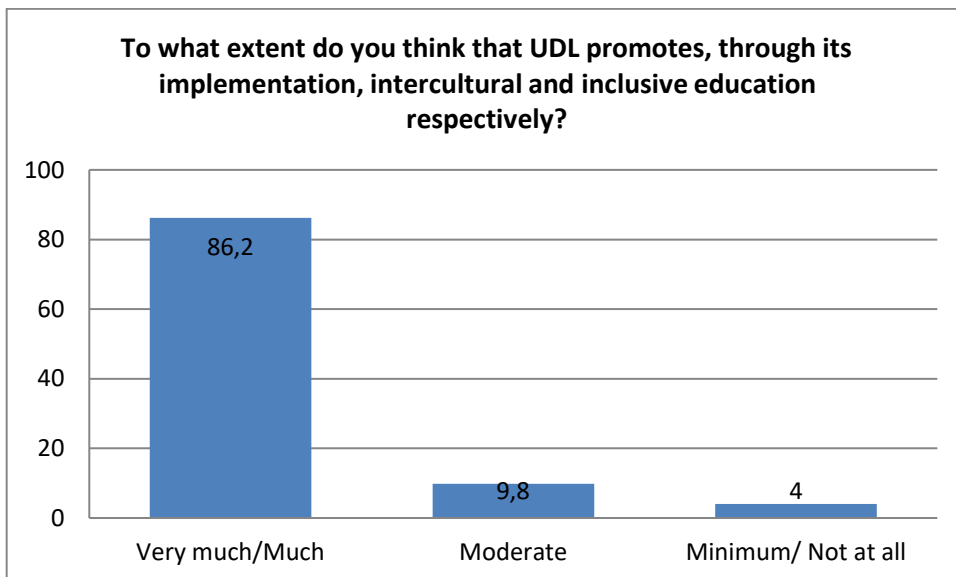


Fig.25 Promotion of intercultural and inclusive education through UDL

Likewise, in the question *' To what extent do you think UDL can promote intercultural and inclusive education in the context of online learning?'* the majority of the sample responded very much/much.

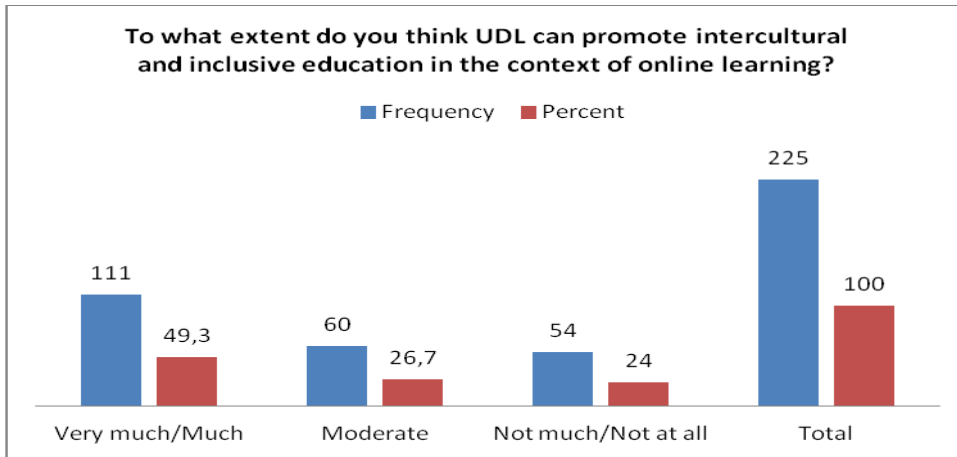


Fig.26. The promotion of intercultural and inclusive education through UDL in online learning

Through x-square tests we confirmed that neither the level of teachers' studies, neither their specialty nor the knowledge of mixed classes affect somehow their knowledge of UDL. Furthermore their level of studies does not affect their answer to the question whether UDL affects in a positive way SEND students or foreign students.

Discussion and Conclusions

Studying the data of our research we interpret them as follows. The teachers of our sample are more acquainted to educational practices such as intercultural and inclusive education while are not too keen on new philosophies like UDL. Certainly this attitude is attributed to the fact that UDL is not promoted as much as the other terms and it also requires some perquisites, compatible curricula and relevant training. The teachers of our sample refer to several factors that function as obstacles to UDL adoption and implementation, which are also recorded in the international literature. To be more specific, the lack of infrastructure, the incompatible to UDL curricula, the extra required planning time as well as the lack of relevant training are recognized as main barriers to UDL adoption and implementation (Cooper et al., 2008; Kumar and Wideman, 2014; Markou & Diaz-Noguera, 2022; Mavrou, 2012; Rose et al., 2006; Riviou et al., 2014; Tzivinikou, 2014;).

It is worth mentioning that teachers are amenable to UDL as a significant percentage, who have implemented UDL, claim that have a high sense of personal satisfaction and recognizes positive effects to student's performance as well. Especially for SEND and foreign students they note a positive impact after UDL implementation. Therefore, even teachers that they are not acquainted to UDL accept that UDL is a necessity for educational systems like the Greek one. Probably teachers, evaluating the educational situation and mainly students' diversity, look for new teaching methods that meet the contemporary educational requirements. However, the adoption of new pedagogical approaches also requires a corresponding cognitive background, compatible curricula and infrastructures. So, reforms are required, radical reforms consistent with UDL framework for a well organized and systematic adoption in the Greek educational system. Until now, the necessary decisions and actions have not been made by the relevant Ministry for both the systematic training of teachers and curricula adaptation in this direction (Markou & Diaz-Noguera, 2022).

In addition, almost half of the teachers of our sample face favorably the new circumstances, this of online learning as it is illustrated by their own answers regarding UDL implementation in digital environments consistent with literature (Oyarzun et al., 2021; Lachheb et al., 2021; Rao, 2021; Kay & Hunter, 2022; Herrera et al., 2019). In fact, they do not only claim that UDL is feasible in online learning but also that via UDL implementation in online learning are favored other associated educational models such as intercultural and inclusive education, which is consistent with the relevant literature but also already accepted in literature for live learning (Basham et al., 2020; Baran et al., 2021; Galkienė & Monkevičienė, 2021; Quirke & McCarthy, 2020; Paiva et al., 2019; Pesek, 2022; Proyer et al., 2021). However, a similar percentage maintains a negative or more moderate attitude towards UDL in online learning.

Encoding our research data and interpreting the findings we reach the conclusion that there is an oxymoron as despite the fact that almost half of the teachers know/have heard UDL and even a smaller

percentage implements UDL in Greek secondary education, in their overwhelming majority they believe that UDL is nowadays an education necessity. As it was mentioned our sample relied on information related to UDL that was received before filling in the questionnaire.

The low percentage of teachers who know and therefore implement UDL as extracted from the survey data is due to insufficient training and the other mentioned obstacles, i.e. the existing curricula, the lack in school infrastructure and the lack of a well-coordinated effort by the Ministry of Education in this direction.

The fact that the majority of teachers, who have implemented or implement UDL, feel satisfied, it also indicates the positive impact of UDL to teachers themselves. As regards UDL in online learning, teachers are divided. A bit more than the half has a positive attitude while the corresponding percentage answers negatively. So, the very close percentages require further investigation.

UDL is an educational framework that addresses the current demand for inclusion. Due to its characteristics, those of variety and flexibility can be an effective learning approach. Even in special conditions like digital educational environments or blended courses (face to face and online learning) UDL can be implemented providing equal access to learning for all despite any differentiating characteristics.

Our research comes to confirm the positive impact of UDL both for teachers and students. Furthermore, according to our sample answers we come to the conclusion that UDL is feasible in online learning. However, in Greece, based on our research findings, we conclude that UDL implementation is in an embryonic stage as only a low percentage of secondary teachers, who participated in our research, really knows and respectively implements UDL. Of course due to the small sample we cannot proceed to arbitrary generalizations. On the contrary our conclusions concern only our sample and we consider necessary a further research on the subject.

CHAPTER 6: PRESENTATION AND DISCUSSION OF THE MAIN FINDINGS OF THE INTERVIEW DATA

Findings

Coding and analyzing the interview data we we reached some useful conclusions that confirm those of the questionnaire. To be more specific we confirm the low percentage of UDL knowledge and implementation by the teachers of our sample as well as the existence of significant barriers which act as a deterrent to expanding the use of UDL.

Specifically, only 2 out of 6 teachers know the term UDL, and only one applies it in his/her teaching as much as he/she can. In the question *“Do you know the terms intercultural education, inclusive education and Universal Design for Learning (UDL)?”* we received the following answers;

(Teacher 1) Yes, I know them and I consider it necessary to apply them in modern school.

(Teacher 2) Yes, I have heard about it .I am not familiar to it.

Accordingly, in the question *“Do you apply any of these educational practices? If yes, do you encounter obstacles? What kind? What are the results (regarding your teaching, your students but also you)?”* only the one participant answered positively;

(Teacher 1) Yes, basically all, I think these are practices that aim at an education that fits all students. For me, these terms are related, interconnected and their application is imperative. The obstacles have to do with the lack of classroom equipment and the fact that it takes a lot of preparation time at home. Of course curricula do not help... I have noticed as I said that I am more effective and I manage to address all students. Regarding students in particular, I find that an important result is the reduction of school dropout. Students want to attend my classes and most win, have positive-improved performance.

(Teacher 2) No, it is difficult to apply especially in high schools where our hands are tied and we follow the curriculum faithfully. The material must be completed on specific dates.

Therefore, based on the previous notification and the main themes that arose from coding the interview data were the difficulties that teachers generally face in their teaching, the methods/practices they use, their training, the cooperation between those directly and indirectly involved in the educational process. These issues are main factors strongly correlated to UDL implementation and due to them teachers form corresponding attitudes towards it. In fact, UDL requires a series of prerequisites in order to be implemented widely. Customized curricula, a training period for teachers, collaborative planning among teachers and use of multiple pedagogical methods are required for the successful outcome of the teaching based on UDL (Riviou et al., 2014).

Difficulties

Teachers' of our sample claimed that as far as their teaching in general is concerned they face a series of obstacles and according their relevant comments a first theme came up, this of the difficulties that teachers face. The aforementioned difficulties are summarized as follows in order of priority:

- The structure of the Greek educational system
- Curricula
- Students' heterogeneity (ability, nationality...)
- No material support
- Insufficient equipment
- Adults' characteristics (SCSs).

The "closed" curricula and the structure of the Greek educational system are recognized as the main obstacles in teachers' teaching. In particular, teachers present their views as follows:

(Teacher 1) "The difficulties I face are the insufficient equipment of the classrooms. Usually in gymnasium the classrooms that are available for the integration classes are small and have only a conventional marker board. In SCSs the classrooms are bigger but even here there is not the necessary

computer type equipment in every room or projector, tools that I personally need and use, when it is feasible, in my teaching.”

(Teacher 2) “I teach in SCSs... the difficulties I face lie in the fact that the trainees, given that they are in a state of undergraduate education, often have specific assumptions, specific perceptions on issues of our daily life. So, there I find problems.”

(Teacher 3) “Yes, a variety of difficulties can be encountered in a class of many speeds ... I have children in all classes who come from other countries ... so we have a significant difficulty ... because they do not know the language. Another difficulty lies in the fact that there are different levels between students. There are children who attend c grade of the gymnasium, but in fact their level of knowledge is in a grade. There is no willingness, the same willingness from all children.”

(Teacher 4) “First, I would say there is no...there is no material support and infrastructure.”

(Teacher 5) “One difficulty is the curricula which need to be changed. The second difficulty is the large number of students per department. Third, the absence of equipment, i.e. projector or PC per classroom... And of course, the management of students’ population intense heterogeneity...”

(Teacher 2) “In SCSs there are no curricula. There is essentially a guide that if the instructor wants to follow ... SCSs give us the opportunity to evaluate a little the educational material, the trainees we have, so we can make a plan on our own how to move all year and they can meet, better we can meet their demands.”

(Teacher 3) “I would characterize them analgesic. They have a very typical character. Many times they are inapplicable, the goals are unrealistic in many cases ... flexibility is not included...”

(Teacher 4) “For the integrated department, curricula are not at all flexible and are difficult to implement.”

(Teacher 6) “...learning is linked to the national exams for the entry of children into university institutions you can not deviate to the minimum from the curricula. I would dare to call them obsolete.”

(Teacher 5) “In gymnasium I would characterize the curricula closed and rigid. In SCSs there no curricula, there is a flexibility.”

(Teacher 1) “The educational system is so structured, what we said with the curriculum in general, the educational system is so structured that does not let us get away from the whiteboard ... to use new technologies, rather a waste of time I would say, it could be nice maybe, we would have a good time, it would be more enjoyable, they can understand it more, but the point is to teach him (student) to solve, not so much to understand...”

Teaching methods/technics

Regarding the methods/techniques teachers use, we gathered the following data. Teachers show a preference for:

- Presentation-analysis (teacher-centered)
- Enriched presentation
- Brainstorming
- Differentiated instruction
- Collaborative method
- Individualized teaching.

We quote some representative views:

(Teacher 1) “I use a blackboard, the one with markers...I use a lot of worksheets, once a projector...the whole school has one projector, that is not that we have the infrastructure in the field of technology...I personally consider lesson plans very important.”

(Teacher 2) “I mainly use the collaborative method... I can use a video, to see something or read, say, a poem... worksheets.”

(Teacher 3) “I use a combination of methods and tools, the enriched presentation, the brainstorming, the collaborative method, the differentiated teaching. In addition to the printed material, I also use digital, especially in SCSs, multi-digital material.”

(Teacher 6) “I use the presentation mainly because I am more familiar with it. For the most part, I use the book and occasional worksheets.”

Training

As far as teachers’ training in pedagogical issues is concerned, a high participation in seminars was observed. The majority of the sample is high qualified (master degree, doctoral degree) and participates very often in educational seminars. To be more specific, only one of them, who holds a basic degree, has not participated in any training for a long time.

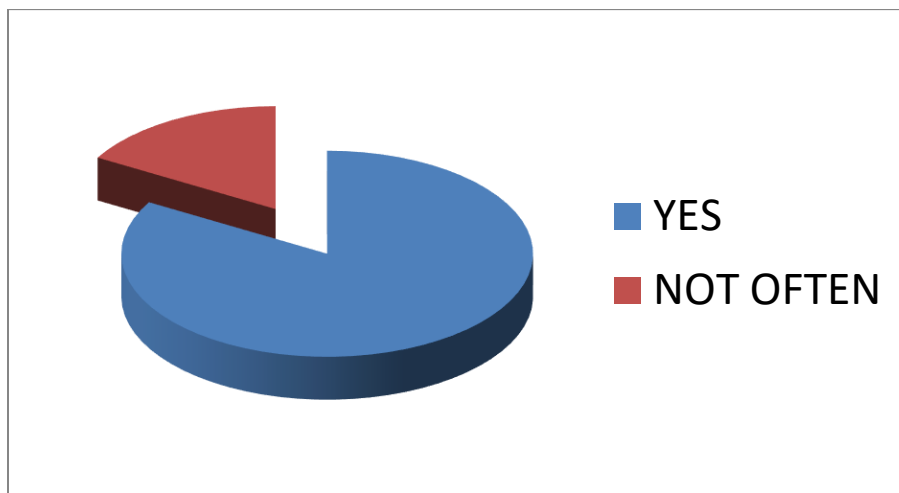


Fig.27 Participation in seminars

Cooperation

As regards cooperation between those directly and indirectly involved in the educational process, thus between teachers, teachers and headmasters, teachers and students, teachers and students’ parents, we conclude that the levels of cooperation are satisfactory.

(Teacher 1) I personally consider myself quite lucky because I have fallen into a school that at least with our colleagues who are in the same subject we have good communication. That is, we are constantly in contact and good cooperation, and they will listen to me and I will listen to them.

(Teacher 2) I'm in a very good school ... a very nice climate has been created. We have an excellent manager who promoted and developed between us teamwork and cooperation ... due to the pandemic I have missed this beautiful climate...

(Teacher 3) Yes, maybe more cooperative in SCSs . In the gymnasium as it was large in population (and more students and more teachers) the collaboration was to some degree but with greater difficulty. Also, the conditions that were formed, the health protocols due to COVID-19 did not allow the development of collaboration neither between teachers nor mainly between students.

(Teacher 4) Most of the times, yes. Not always. I cannot say for all teachers or all parents. But yes most of the time there is collaboration.

(Teacher 5) In all the schools I have worked so far but also in the schools in which I work this year there is a team spirit. In SCSs, the cooperation is one of the dominant elements that exist, without the cooperation at all the levels that you mentioned before, between the trainees, between the teachers and the trainees, between the teachers themselves, between the teachers and the management, that is, in all the links, of all the people involved in the learning process there is cooperation.

(Teacher 6) Yes in general.

Discussion

By the analysis of the findings and based on relevant literature we are able to draw conclusions about teachers' attitudes towards UDL in correlation with the factors that promote UDL implementation. The majority of teachers are not familiar with UDL and this is a consequence of a series of factors. First of all, the lack of relevant teachers' training, the general difficulties they face i.e. the whole structure of the Greek educational system, their attachment to specific teaching methods and techniques as well as their

inability to incorporate practices that actually go against to what they have learned, the lack of funding (insufficient equipment, infrastructure), their students' heterogeneity, and last but not least the "disabled" curricula, according to our research can justify the specific attitude of teachers towards UDL. They are not familiar to it and they do not receive the appropriate and required enhancement by the competent authority.

It takes time and effort on the part of teachers for the implementation of innovative practices and of course and above all the corresponding direction, organization, support and financing of the educational system by the competent bodies. As Edyburn (2010) points out "*UDL is much more complex than we originally thought*".

Our research findings are consistent to prior researches. According to previous literature and the analysis of our data we reach to the conclusion that in Greece the teachers of secondary education and SCSs who participated in our research are not aware of UDL framework and therefore they do not implement it as not all the required conditions are met. Reviewing the literature, we focus on the research of Lombardi et al., (2011) that refers to the lack of funding as the main barrier to UDL implementation. Furthermore, there is a consistency to Rose et al. (2006) who highlighted the critical role of appropriate curricula and infrastructure in UDL implementation, as well as to Bernaccio and Mullen (2007) who stressed the value of designing flexible and supportive curricula. Accordingly, Hitchcock et al., (2002) highlighted the significance for a curriculum reform, to design a general curriculum in the framework of UDL. Tzivinikou (2014) refers to "disabled" curricula and infrastructure that restrict UDL implementation. She also points out the need for faculty interest in academic and personal development and funding as well. In conclusion she proposes the establishment of a UDL center. According to Riviou et al. (2014), UDL requires collaborative planning among teachers with different curriculum knowledge and skills and presupposes a training period for teachers and students as well. Anstead (2016), in his research, points out as significant barriers to UDL implementation the lack of training, of sufficient supplies and equipment,

the required time to collaborate with other teachers as well as the fear for anything new. In Martin's research (2016) is highlighted the need for proper training, access to tools and assistive technologies, change of old teaching techniques to new ones, additional support i.e. accommodation for children with learning difficulties/disabilities. Accordingly, in Scott's research (2018) teachers divulge several barriers to UDL implementation like the lack of training and practice in the field, the lack of administrative and policy support, information totally consistent to prior researches (Alter & Coggshall, 2009; Bradshaw & Mundia, 2006; Clark & Bates, 2003; Cook & Odom, 2013; Jenkins & Yoshimura, 2010; Nelson et al., 2017; Schleicher, 2011; Scott et al., 2017; Subban & Sharma, 2006; Tseng, 2012). Akogiounoglou (2019) notes respectively the need for collaboration among teachers and their proper training. Similarly, the need for proper training and time for familiarization for teachers and students are noted in other researches too (Capp, 2017; Courey et al., 2013; Rao & Torres, 2017). Shano Ji (2019) presents as main barriers to UDL the unsuitable curricula, the lack of training and funding, highlighting that it is urgent for teachers in order to understand and address students with diverse learning needs to obtain new skills, training and support from the educational system.

CHAPTER 7: PRESENTATION AND DISCUSSION OF THE MAIN FINDINGS OF THE REFLECTION JOURNALS

The data analysis revealed three themes related to the implementation of UDL in Greece, especially in secondary education and SCS. The themes were: a) the difficulties faced by teachers in UDL implementation, b) the results of UDL implementation, and c) the feelings during UDL implementation. Analysis of teachers' reflection journals revealed that teachers favored UDL as a learning practice with positive outcomes for all students. This result includes 'typical' students, students with special educational needs/disabilities, and students learning a language that is not their native language. Although they did not feel confident before implementing UDL, due to several factors, such as lack of relevant training, lack of time for lesson planning, lack of necessary resources (access to technology), unfamiliarity with the use of technology (Web 2.0), and the existing curricula in secondary education, their post-implementation records showed that their predominant feeling was satisfied with their teaching. According to their notes in their reflection diaries, there was a divergence between the views of general secondary teachers and special education/adult teachers. It was also noted that the special health conditions that forced COVID - 19 distance learning, among other things, and the constraints of live teaching, such as maintaining spacing between students and not using common items, presented an additional difficulty in implementing UDL.

Difficulties in Implementing UDL

More specifically, general secondary teachers mentioned the following obstacles in implementing UDL: curricula required planning time, lack of pedagogical qualifications, lack of facilities (Internet, computers, and projectors), COVID-19 circumstances (distance learning, distance between students during face-to-face classes). The curriculum is the main factor that negatively affects the implementation of UDL and has been highlighted in other studies within and outside Greece (Riviou et al., 2014; Rose et al., 2006; Tzivinikou, 2014). Teachers must follow a specific program and reading materials. They cannot deviate from it. Especially in the lyceio (upper secondary), schooling is closely linked to the All-Greek examinations that allow any candidate to enter higher education. The consequence of this prevailing

practice is that teachers are anxious to stick to the curriculum and refuse to implement innovative programs that do not serve the perspective of that curriculum. As a result, they run the risk of appearing incompetent. General education teachers also indicate that the lack of training and relevant experience with innovative practices prevents them from using UDL, which is also confirmed by other researchers (Riviou et al., 2014; Rose et al., 2006; Tzivinikou, 2014). They even indicated difficulty designing their lesson plan based on UDL guidelines and implementing the plan. More time was needed for the first phase of this design, and more changes were noted for future use during implementation. The plan could not be reused without the necessary changes; due to lack of experience, they could not envision this as a priority. The lack of new technologies in the infrastructure was mentioned as difficulty in implementing UDL. Teachers believe that new technologies in the digital age are a tool for implementing innovative practices, including UDL. Finally, health conditions are a universal distance education due to COVID -19. When schools first opened, strict protocols, such as spacing between students, were a real barrier to implementing UDL. This obstacle is not because UDL cannot be applied in a digital learning environment; on the contrary, the relevant literature proves otherwise (Al-Azawei et al., 2017; Baumann & Melle, 2019; Catalano, 2014; Rao, 2021; Scott & Temple, 2017). However, teachers in the sample indicated that they were expected to teach in a fully digital learning environment without appropriate information and training. Conventional teaching was difficult due to a lack of knowledge and experience. As for teaching when schools were open, the difficulty for teachers were the strict health measures that did not allow group work, cooperation, and sharing of reused materials among all students.

Special education teachers in secondary schools had fewer difficulties than general education teachers. For them, the curricula, the lack of modern technological equipment, and the pedagogical conditions created by COVID -19 acted as stumbling blocks. However, they said they were better prepared and more confident in designing and implementing their UDL-based lesson plans. Most of them have a master's degree in special education or at least annual training in the subject, making them pedagogically

aware and adequate about current trends and educational philosophies. They also indicate that they are comfortable taking professional development courses to help them cope with the nature of their work, which helps to build self-confidence.

SCS teachers are the teachers who have faced the fewest obstacles in implementing UDL. The fact that there is no strict, closed curriculum that must be followed exactly has contributed to this. The curriculum, which acts more as a guide, is open and flexible. This allows teachers to try new practices more easily without the stress of finding a specific reading material, but rather use the curriculum as a reference point for the needs of adult learners. SCS teachers pointed to difficulties in implementing UDL, the lack of infrastructure for new technologies, and the special educational conditions created by the measures for COVID -19. At this point, it is worth noting that some SCS teachers pointed out, not as an obstacle but as a feature worth mentioning, that they are called to apply UDL to adults who have experienced a conservative and outdated educational system and may have been negatively evaluated and therefore have a specific idea of education. They are now called to learn about a new system that does not require them to conform to it but is tailored to their needs. This initial idea that emerged in the curriculum design has been confirmed by the program's implementation, which ensures the philosophy of the UDL itself.

Thus, as far as teachers' difficulties in implementing UDL are concerned, they are not trained and therefore not familiar with UDL principles. Consequently, implementing UDL requires more time and effort. This finding is also confirmed by the research of Cooper et al. (2008), Kumar and Wideman (2014), and Mavrou (2012). According to the relevant data, it is evident that there is a need for additional training. There needs to be training that facilitates teachers to adopt innovative practices, something that is also addressed in the literature (Alter & Coggshall, 2009; Bray-Clark & Bates, 2003) and associates training with a better icon of teachers' ability to teach (Brandshaw & Mundia, 2006; Subban & Sharma, 2006), especially in inclusion classrooms (Jetkins & Yoshimura, 2010; Schleicher, 2011). Last, the need for flexible curricula

based on UDL principles is important in implementing UDL. Each component of such a curriculum (objectives, methods, materials, and assessments) is expected to be designed to meet the needs of learners and provide the necessary flexibility while providing a reference point for any teacher who wishes to follow and implement UDL guidelines (Cooper et al., 2008; Mavrou & Symeonidou, 2014). In short, a flexible curriculum should be structured with specific instructional objectives, methods, resources, and appropriate assessment techniques that support and implement inclusive practices, such as UDL in the classroom (Hitchcock et al., 2005).

Table 6. Difficulties in Implementing UDL

Difficulties in implementing UDL	Teachers (general education)	Teachers (special education)	Teachers (adult education)
	Total	Total	Total
1. Curricula	8	7	2
2. Required planning time	6	3	2
3. Educational Qualifications	8	2	2
4. Media availability	7	6	10
5. Distance learning	8	7	10
6. Health measures due to Covid-19	8	7	10

Results of UDL Implementation

From teacher recordings in the second reflection journal, after implementing UDL, we conclude that the general results were positive. Teachers, independently of their specialty, general or special education, or adult education, noted that implementing the UDL favored students. All in all, the teachers

found that students showed greater interest compared to previous lessons in which a traditional teaching model was applied, which is also confirmed by other studies (Chalkiadaki & Akogiounoglou, 2018; Chalkiadaki & Akogiounoglou, 2019). Additionally, they mentioned that the students participated more and performed better.

Regarding students with special needs/disabilities, the teachers found a manifestation of greater interest, participation, and better performance. In their opinion, the presentation of the respective cognitive object with multiple means contributed to this, as well as the possibility for students to express themselves in many ways depending on what suits them best based on their needs.

Adult SCS students with identified special educational needs showed correspondingly greater interest, participation, and higher performance compared to previous courses in which conventional teaching was applied, which, as the teachers themselves noted, was the one who 'had rejected' them in the past. Secondary school and SDE students with Greek as a second or foreign language showed greater interest, participation, and performance in full correspondence, or even slightly higher than the other student categories.

The teachers of our sample emphasized that UDL activated all students and acted as support even to those who have special needs/disabilities or have Greek as a second or foreign language because of the basic elements that compose it. For example some basic elements are the variety and flexibility in the presentation of the information, the variety and flexibility in the way students could express their knowledge, and the variety or flexibility in how students are motivated.

Even students who could be abusively considered 'standard' students respectively were positively affected due to the implementation of UDL, which addressed their own needs, and because the teaching was not based on a conventional form. The only textbook was enriched with the help of new technologies, a significant part with which especially modern youth are familiar and seek it. The finding, according to our research data, that both learners and teachers benefit from UDL as well is also supported by other

studies and is compatible with their conclusions (Coyne et al., 2012; Courey et al., 2012; Hall et al., 2015; He, 2014; Davies et al., 2012; Kennedy et al., 2014; King-Sears et al., 2015; Kumar & Wideman, 2014; McGhie-Richmond & Sung, 2012; Smith, 2012).

Table 7. Results of UDL Implementation

No	Results of UDL implementation	Students	Students with special needs/disability	Students with Greek as a second language
		Total	Total	Total
1.	Greater interest	25	25	25
2.	Greater participation	23	25	25
3.	Better performance	20	22	24

Teachers' Feelings

Regarding the emotions experienced by teachers during the planning of their teaching, but also after its implementation, we concluded that the specialty with what it implies, i.e., characteristics of education or pedagogical training, influenced the attitude of teachers. In particular, teachers from general secondary education stated that they experienced more stress throughout the process, possibly due to the greater difficulties they encountered (curricula, lack of training). On the contrary, teachers of special education and SCSs felt more confident, less anxious, and expressed personal satisfaction as a dominant emotion. Especially after implementing their teaching plan, which was based on UDL, these teachers, in all respects, stated that personal satisfaction prevailed. Using pseudonyms, we quote relevant notes from teachers on their feelings before and after implementing their teaching plan.

Teachers of General Education

Before UDL implementation, Gerald says: "I feel very satisfied because I give my free time to improve my teaching. I have many ideas, and now I have the opportunity to realize them. '

After the implementation, he says: "I feel very satisfied and proud of myself. I feel like a better teacher as the time and effort I dedicated to my work were effective. '

Sarah, before UDL implementation, says: "I feel a little anxious about the whole procedure and its result. I am unfamiliar with UDL, and I need so much time to work on it stresses me enough." After her teaching, she points out, "I feel quite satisfied as I saw that my instruction had positive results. Also, a bit worried as I do not know if I can continue to work too hard for every lesson."

Accordingly, while he was scheduling his instruction plan, Peter pointed out: "I feel a bit confused. On the one hand, I feel happy to implement something new. On the other hand, I am very stressed, as I do not know much about this. It is my first trial implementing UDL in my instruction." After implementing his teaching plan, he said: "I am very satisfied with my instruction. It had positive results for my students and me as well. I really feel like a better teacher. However, I continue to feel anxious about whether I will be able to apply something so demanding in time and effort in the future."

Teachers of Special Education

Sonia says during the schedule of her teaching plan: "I feel very confident and satisfied. I am keen on implementing new practices in education as I follow every development in the field to fulfill my students' education needs." After her plan implementation, she claims: "I still feel satisfied and proud of myself. My lesson plan was successful. It won the students' interest and led them to understand better and manage the issue. My satisfaction is greater as I address students with special needs/disabilities, and the results were better than expected."

Consequently, Mary says before implementing UDL and during her plan scheduling: "I really feel excited and satisfied as I am called to implement a well-known practice. I schedule my plan by dedicating

more time than the conventional instruction, but this is not a problem for me." After implementing my plan, she continues: "I am satisfied with my plan. Everything went well."

Teachers of SCSs

Before UDL implementation Alex says: "I feel a bit anxious but in a good sense, not stressed. I mostly have the impatience to fulfill my plan and implement it. I plan for my instruction and use innovative practices, but this time it is about a practice that has not been widely applied in Greece, at least in adult education." After implementing his teaching plan based on UDL, he said: "I am very satisfied with myself in the first place and my students as well. My lesson was interesting, and all my students somehow participated. It was especially satisfying to hear a "thank you" from my students when I finished the lesson. UDL was effective as a practice, and I will try to implement it as long as the circumstances allow me to."

Before the implementation, Tonia said: "I am satisfied that I will implement UDL to participate in research about it, as I am familiar with it. I implement UDL in my instruction, so it is not something new for me." And he concludes after the implementation: "As I expected, everything went perfect one more time. I am very satisfied with the attitudes of my students towards UDL."

Table 8. Teachers' Feelings

No	Teachers' feelings	Teachers	Teachers	Teachers	(adult
		(general education)	(special education)	education)	
		Total	Total	Total	

<u>During planning</u>			
1.	Personal satisfaction	7	8
2.	Stress	6	2

<u>After implementation</u>			
1.	Personal satisfaction	7	10
2.	Stress	3	0

Our study focused on teachers' readiness to implement UDL, obstacles encountered during the process, and outcomes of UDL plans based on their records in reflection journals. Teachers in the sample were asked to implement UDL in mixed classes and to record their feelings, the outcomes of their instruction, and any obstacles they encountered.

The data we collected shows that teachers in Greece, especially those in general secondary education, are not fully prepared to implement UDL due to a lack of relevant training. They feel inadequate regarding new practices due to their lack of pedagogical training. Of course, they recognize, as an obstacle to the implementation of UDL, the lack of adequate school equipment, which is commonplace in the infrastructure of Greek schools. Instead, special and adult education teachers are more willing to implement new pedagogical practices such as UDL, as it is in line with the philosophy of special and adult education. They are somewhat accustomed to it, as a certain degree is required to work in the respective educational field. In addition, the inadequate curricula at the secondary level are the major deterrent factor compared to adult education, where the curricula are open and provide teachers and their instruction with desirable flexibility. As for the Covid-19 circumstances, these were particular difficulties faced by all teachers in the sample.

In examining the data from the records, we concluded that the implementation of UDL positively affected all students. They were graded regardless of any special circumstance, such as the presence of a disability or Greek as a second language. A positive effect was also evident in teachers' feelings after implementing UDL. Thus, even general secondary teachers who initially felt stressed about their new endeavor reported personal satisfaction and fulfillment after implementation in the second data set. However, some noted that despite satisfaction, feelings of stress remained. This result was largely due to their insufficient knowledge of the subject and inexperience. Special and adult education teachers felt greater satisfaction in the first lesson planning stage because they were more familiar with similar situations.

CHAPTER 8: CONCLUSIONS AND COMMENTS

Conclusions

Analyzing our research data and taking into account the data of the relevant literature we conclude that despite the international acceptance of UDL as an inclusive practice the teachers of our sample do not know UDL and therefore they are not acquainted to it. Accordingly they are not able to implement it due to a series of factors that affect their attitudes such as closed, non-flexible curricula, lack of relevant to UDL training and lack of available infrastructure. Therefore, our quantitative research presents through teachers' answers the need for changes that focus on the organized implementation of UDL based on curriculum modification, systematic training, and appropriate support for teachers. The same results are confirmed by teachers' answers on the qualitative research (interviews).

Although, the teachers of the sample are highly qualified, they participate regularly in educational seminars and use a variety of educational methods/techniques as well, the fact that there is not an organized attempt from the Greek Ministry of Education to create a fertile ground for UDL implementation does not favor UDL adoption by the teaching staff. The fact that teachers of our sample are willing to dedicate personal time for training as well as the cooperative climate that exists in general in Greek schools, create favorable conditions for UDL implementation. However, these two characteristics cannot be the main factors of such an implementation. Adapted curricula, focused training, adequate equipment and primarily an educational system structured on and oriented to the principles of social inclusion (respect, equity, meritocracy) are required in order to establish effectively UDL in a wide extent.

UDL is not simply an educational method or practice but a whole "*cast of mind*" that regulates any educational proceeding in an inclusive framework. UDL is an effective framework for meeting the needs of a diverse student population. Our study of teachers using this philosophy showed positive results for both students and teachers. The teachers who participated in the research confirm the above assumption.

Although, encoding our research data and interpreting the findings we reach to the conclusion that there is an oxymoron as despite the fact that almost half of the teachers know/have heard UDL and even a smaller percentage implements UDL in Greek secondary education, in their overwhelming majority they believe that UDL is nowadays an education necessity. We have also understood that special and adult education teachers' attitudes differ in contrast to general education teachers as the first ones receive training at more regular intervals in order to have the possibility to work in state schools and be able to meet the needs of their position. In addition, as regards SCSs, the curricula are more flexible in comparison with secondary education, so adult education teachers can be more flexible in designing and reforming their teaching than special and general education teachers..

The teachers of our sample who implemented UDL in the context of the research expressed that they were satisfied with the whole process and they will try to adopt the whole philosophy and UDL guidelines as much as possible and as much it is allowed by the curricula. They also felt that it is worthwhile to link UDL with intercultural and inclusive education and to expand the implementation in these areas since UDL promotes cooperation among students, and implies acceptance and respect for each other. UDL appears to be highly inclusive and intercultural as the results of its implementation show via the reflection journals . UDL implementation favours students with special needs and foreign students as well without setting them in the margin. The results of UDL implementation were positive for the majority of students.

The fact that the majority of teachers, who implemented UDL, feel satisfied of this indicates the positive impact of UDL to the teachers themselves. As regards UDL in online learning, teachers are divided. A bit more than the half has a positive attitude while the corresponding percentage answers negatively. So, the very close percentages require further investigation.

Unfortunately, based on the above conclusions we can only claim that UDL implementation in Greek secondary education is in an embryonic stage. Despite the fact that current conditions demand a

framework like UDL, it seems that the Greek educational system has not yet been adapted to the new data and the entailed needs.

Recommendations

Necessity for future research

This study was a first attempt to investigate on the one hand the acceptance and impact of UDL on Greek secondary education, on the other hand whether UDL fosters intercultural and inclusive education. We chose to study the issue from the perspective of teachers, who are a key factor in the educational process. They are essentially the proponents and implementers of the respective educational theories and the first indirect addressees of their impact.

The choice of the topic was based on the lack of research activities in this field and the desire to highlight this issue since UDL is widely applied abroad with positive results. The Greek educational system needs the application of innovative practices to meet its role and modern demands such as this of cultivating an intercultural consciousness and this of inclusion of SEND students as well. In addition, our research focused on the factors that influence the implementation of UDL and its outcomes to highlight its value and the need for reforms and appropriate actions on the part of the relevant bodies for its successful implementation. Modifying outdated curricula, appropriate teacher training, and adequate equipment are necessary to adopt the philosophy of UDL.

However, our research was conducted for a limited period of time, mainly due to the exceptional situation brought by COVID -19 and the corresponding health protocol. Therefore, we believe that a longer study, with more implementation data available to use for analysis, would be of particular interest, as it would be more thorough and provide more reliable results. Of course due to the small sample we cannot proceed to generalizations. Further research with a bigger sample is required. In addition, in a future

study, it would be interesting to examine factors such as sample characteristics, age, gender, years of experience, and their influence on teachers' attitudes toward UDL.

Overall consideration of the research

Final comments

Concluding the presentation of the research, we consider it important to close in the way we started, that is, the questions on which the specific research was structured, accompanied by the answers that emerged through our research. We sought to investigate whether the implementation of UDL promotes inclusive and intercultural education in the Greek educational data. In order to answer this question, we employed both qualitative and quantitative research methods by examining a series of sub-questions and specifically

- Do teachers recognize as a need and implement intercultural and inclusive education in their teaching?
- What kind of obstacles do they face?
- Are they familiar and implement UDL?
- What are the barriers they deal with?
- Which are the results implementing UDL in learning procedure?
- Do they consider that UDL, intercultural and inclusive education are educational philosophies converging as far as the objectives are concerned?
- Do they believe that through UDL the aims of intercultural and inclusive education (especially for SEND students) are achieved?
- Are indicated any differences in UDL implementation feasibility and effectiveness between formal adult education and formal education for minors, and why?

- Due to the unprecedented situation of COVID 19 worldwide, distance education has been implemented in many countries, including Greece. To what extent on one hand is the implementation of UDL possible in distance education as well and on the other could intercultural and inclusive education be fostered through the implementation of UDL in digital environments?

As shown by the data we obtained from the research, the majority of the teachers who participated in the research consider it necessary to apply the educational theories of intercultural and inclusive education as well as UDL. However, in their implementation they encounter a series of obstacles of which both the current curricula and the insufficient infrastructure of the schools are noted as common.

The majority of the participants in our research are not familiar with UDL and this is mainly attributed to their lack of training in pedagogic issues. It is worth mentioning that a large percentage of the teachers assessed positively the implementation of UDL regarding their personal satisfaction and students' participation and performance especially those of SEND and foreign students'.

Accordingly, the most of the participants consider that there is a convergence between the educational philosophies of UDL, intercultural and inclusive education. Furthermore, they support the theory of intercultural and inclusive education promotion through UDL, even in distance learning and specifically in online educational environments. However, COVID-19 circumstances (distance learning, distance between students during face-to-face classes) created a further difficulty in the implementation of new pedagogy.

As far as adult education is concerned and more specific SCSs, SCS teachers are the teachers who have faced the fewest obstacles in implementing UDL as on the one hand high qualifications are required as in the case of special education teachers, on the other hand the fact that there is no strict, closed curriculum that must be followed in SCSs has contributed the maximum positively.

In conclusion, UDL is an educational philosophy towards which the Greek teachers of the sample have a positive attitude and believe that it works as a potential promoter of intercultural and inclusive

education, which respectively are considered necessary in the Greek data, however they do not apply it in a high percentage mainly due to the lack of central planning to achieve the appropriate framework for its implementation, i.e. appropriate curricula, corresponding infrastructure and teacher training.

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APPENDICES

APPENDIX A: Questionnaire

Universal Design for Learning (UDL) and its contribution to the promotion of intercultural and inclusive education.

"A SCHOOL FOR ALL" - TEACHERS' ATTITUDES

Research for a PhD thesis

Dear colleagues,

The questionnaire is part of research in the context of my PhD thesis at the Department of Social and Legal Sciences of the University of Córdoba. The main objective is to highlight the views of teachers serving in structures of general secondary education (General Gymnasium Schools/Lyceum Schools) and general formal adult education (Second Chance Schools) regarding Universal Design for Learning (UDL) and the promotion through it of intercultural and inclusive education.

Through this research we will be able to determine the extent of the acceptance of UDL, possible obstacles faced by teachers during its implementation, their personal assessments regarding its results as well as correlations between the aforementioned educational practices (UDL, intercultural education, inclusive education) and finally draw conclusions and propose appropriate interventions.

I would really appreciate it if you could try to answer honestly. If you need any clarification, please feel free to contact me at the following email address: parevage@gmail.com

The questionnaire and the data extracted from it will be used exclusively for research purposes and for this reason and to ensure the personal data of the participants, the questionnaire is anonymous.

Thank you in advance

Markou Paraskevi

PhD candidate at the University of Córdoba

Part A – Participants' Profiles

I would request you to mark the answers that best correspond to your choices

A1. Gender

Female 2	Male 1
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A2. Age group

1	20-25
2	26-35
3	36-45
4	46-55
5	Over 55

A3. You work as

1	Teacher of general secondary education
2	Teacher of special education (Integration Department or Parallel Support)
3	Reception Class Teacher
4	Teacher at a Second Chance School (SCS) (on b16b)

A4. Years of work experience

1	1-5
2	6-10
3	11-15
4	16-20
5	'Over 20

A5. Do you teach mixed classes?

YES 1	NO 2	I don't know what mixed classes are 3
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A6. Highest level of studies

1	Basic degree from a higher educational institution or technological institution
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2	Postgraduate Diploma (MASTER)
3	Doctoral Diploma (PhD)
4	Other

A7. Knowledge of computer operation

Yes, with certification 1	Yes, without certification 2	NO 3
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Part B - Secondary school teachers' views of UDL and its contribution to the promotion of intercultural and inclusive education

(If A3=1, 2, 3)

B1a. How would you characterize the Curriculum for general secondary education?

1	Rigidly
2	Closed
3	Flexible
4	Open
5	Other:

If A3=4

B1b. How would you characterize the Curriculum for Second Chance Schools?

1	Rigidly
2	Closed
3	Flexible
4	Open
5	Other:

B2. Which of the following educational terms do you know?

	I know	I have heard of it but know very little about it	I have never heard of it
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Universal design for learning (UDL)	1	2	3 = B3 AND THEN B12
Intercultural education	1	2	3 DOES NOT DO QUESTIONS B13 TO B16
Inclusive education	1	2	3 DOES NOT DO QUESTIONS B18 AND B21

B3. *Universal Design for Learning (UDL) is an educational framework aimed at improving teaching and learning for all individuals based on scientific evidence about how people learn. It embodies the idea of 'One School for All', i.e. a school that can adapt to the individual needs of 'different' students across the learning spectrum by developing curricula that target all students rather than the average student. To what extent do you consider that nowadays UDL is an educational necessity?*

1	Very much
2	Much
3	Moderate
4	Minimum
5	Not at all

B4. Are you familiar with Universal Design for Learning (UDL)?

1	Very much
2	Much
3	Moderate
4	Minimum
5	Not at all

B5. Do you know UDL because of (select as many answers as apply)

1	Your basic studies
2	Postgraduate studies
3	Special training in pedagogy from the Ministry of Education
4	Personal initiative for specialization in pedagogic issues from a private institution
5	Other

B6 Do you agree or disagree with the following statement?

The application of UDL presupposes curricula compatible with it in terms of their structural components, i.e. in the formation of objectives, methods, materials and assessment and designed so that they are addressed from the outset to all students, without the need for subsequent adjustments.

1	Strongly Agree
2	Rather agree
3	Neither agree nor disagree
4	Rather disagree
5	Totally disagree

B7. Have you applied in the past or are you currently applying UDL?

YES	Go to Q. B8
NO	Go to Q. B12

B8. Which of the following UDL guidelines have you incorporated/do you incorporate into your teaching?

	YES	NO
Providing multiple means of representation	1	2
Provide multiple means of engagement	1	2
Providing multiple means of action and expression	1	2

B9. By implementing UDL you differentiate your teaching regarding (Select as many answers as apply)

1	Teaching methods and means
2	The educational material
3	Educational activities
4	Evaluation
5	Other (NOTE)

B10. What are the most common problems you faced/are facing when implementing UDL (Up to 3 answers)

1	Curricula
2	Insufficient training

3	Absence of support (from PEKES/SCHOOL UNIT ADDRESS/COLLEAGUES)
4	Lack of time to prepare
5	Inadequate school infrastructure (facilities, technological equipment)
6	Students' attitudes
7	Attitudes of students' guardians
	Other (NOTE)

B11. To what extent are you satisfied with the implementation of UDL regarding the following issues?

	Very much	Much	Moderate	Minimum	Not at all
It gives you satisfaction and a high sense of self-esteem	5	4	3	2	1
It contributes to the activation/participation of all students and improves their performance	5	4	3	2	1
Especially for students who are differentiated in terms of abilities and/or ethnic origin, positive results are observed and in particular a high rate of participation and performance compared to the results of applying conventional teaching models	5	4	3	2	1
Contributes to the development of relationships between students based on mutual respect, tolerance and acceptance of differences by promoting cooperation between them					
Other (NOTE)	5	4	3	2	1

B12. Intercultural education respects and utilizes cultural difference with the aim of eliminating discrimination and exclusion of people with different linguistic and cultural backgrounds through the formation of those conditions that ensure the acceptance of otherness and the promotion of the smooth

integration of students in the educational process. To what extent do you think that intercultural education is a necessity for the modern school?

1	Very much
2	Much
3	Moderate
4	Minimum
5	Not at all

B13. Have you implemented or are you implementing the intercultural education model in your teaching?

YES	Go to Q. B14
NO	Go to Q. B17

B14. When applying the model of intercultural education you differentiate your teaching with respect to (They choose what they want)

1	Teaching methods and means
2	The educational material
3	Educational activities
4	Evaluation
5	Other (NOTE)

B15. To what extent are you satisfied with the application of the intercultural teaching model in the following subjects? (Choose as many as they want)

	Very much	Much	Moderate	Minimum	Not at all
It gives you satisfaction and a high sense of self-esteem	5	4	3	2	1
It contributes to the activation/participation of all students and improves their performance	5	4	3	2	1

Especially for students who are differentiated in terms of abilities and/or ethnic origin, positive results are observed and in particular a high rate of participation and performance compared to the results of applying conventional teaching models	5	4	3	2	1
Contributes to the development of relationships between students based on mutual respect, tolerance and acceptance of differences by promoting cooperation between them					
Other (NOTE)	5	4	3	2	1

B16. What are the most common problems you face when implementing the intercultural education model? (Up to 3 answers)

1	Curricula
2	Insufficient training
3	Absence of support (from PEKES/SCHOOL UNIT ADDRESS/COLLEAGUES)
4	Lack of time to prepare
5	Inadequate school infrastructure (facilities, technological equipment)
6	Students' attitudes
7	Attitudes of students' guardians
	Other (NOTE)

B17. *Inclusive education is about treating all students based on a value system that accepts and respects diversity arising from gender, ethnicity, race, language, social and educational background, disability and aims at "EDUCATION FOR ALL ».* To what extent do you consider the inclusion of students with special needs/disability in mainstream schools a necessity?

1	Very much
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2	Much
3	Moderate
4	Minimum
5	Not at all

B18. Have you implemented or are you implementing inclusive education practices in your teaching?

YES	Go to Q. B19
NO	Go to Q. B22

B19. When implementing inclusive education you differentiate your teaching in terms of (They choose what they want)

1	Teaching methods and means
2	The educational material
3	Educational activities
4	Evaluation
5	Other (NOTE)

B20. To what extent are you satisfied with the implementation of inclusive education regarding the following topics? (Choose as many as they want)

	Very much	Much	Moderate	Minimum	Not at all
It gives you satisfaction and a high sense of self-esteem	5	4	3	2	1
It contributes to the activation/participation of all students and improves their performance	5	4	3	2	1
Especially for students who are differentiated in terms of abilities and/or ethnic origin, positive results are observed and in particular a high rate of participation	5	4	3	2	1

and performance compared to the results of applying conventional teaching models					
Contributes to the development of relationships between students based on mutual respect, tolerance and acceptance of differences by promoting cooperation between them					
Other (NOTE)	5	4	3	2	1

B21. What are the most common problems you face in implementing inclusive education? (Up to 3 answers)

1	Curricula
2	Insufficient training
3	Absence of support (from PEKES/SCHOOL UNIT ADDRESS/COLLEAGUES)
4	Lack of time to prepare
5	Inadequate school infrastructure (facilities, technological equipment)
6	Students' attitudes
7	Attitudes of students' guardians
	Other (NOTE)

B22. To what extent do you think that the educational framework of Universal Design for Learning (UDL) converges with the basic principles of intercultural and inclusive education: equality, mutual understanding, mutual respect and mutual acceptance?

1	Very much
2	Much
3	Moderate
4	Minimum
5	Not at all

B23. To what extent do you think that UDL promotes, through its implementation, intercultural and inclusive education respectively?

1	Very much
2	Much
3	Moderate
4	Minimum
5	Not at all

B24. Under the current conditions in Greece, i.e. the interruption of live education due to the corona virus (COVID-19) pandemic and the universal application of distance education at all levels, do you think that UDL can be applied in the context of school distance learning?

YES	1
NO	2

B25. To what extent do you think that UDL can promote intercultural and inclusive education in the context of school distance education?

1	Very much
2	Much
3	Moderate
4	Minimum
5	Not at all

Thank you for your time

APPENDIX B: SPSS tables

A1. Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	63	28,0	28,0	28,0
	FEMALE	162	72,0	72,0	100,0
	Total	225	100,0	100,0	

A2. Age group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20-25	2	,9	,9	,9
	26-35	16	7,1	7,1	8,0
	36-45	113	50,2	50,2	58,2
	46-55	65	28,9	28,9	87,1
	Over 55	29	12,9	12,9	100,0
	Total	225	100,0	100,0	

A3. You work as

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Teacher of general secondary education	149	66,2	66,2	66,2
	Teacher of special education (Integration Department or Parallel Support)	38	16,9	16,9	83,1
	Teacher at a Second Chance School (SCS)	38	16,9	16,9	100,0
	Total	225	100,0	100,0	

A4. Years of work experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	46	20,4	20,4	20,4
	6-10	43	19,1	19,1	39,6
	11-15	55	24,4	24,4	64,0
	16-20	33	14,7	14,7	78,7
	Over 20	48	21,3	21,3	100,0
	Total	225	100,0	100,0	

A5. Do you teach mixed classes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	132	58,7	58,7	58,7
	NO	48	21,3	21,3	80,0
	I don't know what mixed classes are	45	20,0	20,0	100,0
	Total	225	100,0	100,0	

A6. Highest level of studies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Basic degree from a higher educational institution or technological institution	78	34,7	34,7	34,7
	Postgraduate Diploma (MASTER)	130	57,8	57,8	92,4
	Doctoral Diploma (PhD)	17	7,6	7,6	100,0

Total	225	100,0	100,0	
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A7. Γνώση χειρισμού Η/Υ

Frequency	Percent	Valid Percent	Cumulative Percent
204	90,7	90,7	90,7
19	8,4	8,4	99,1
2	,9	,9	100,0
225	100,0	100,0	

B1α. How would you characterize the Curriculum for general secondary education?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rigid	56	24,9	29,9	29,9
	Closed	76	33,8	40,6	70,6
	Flexible	28	12,4	15,0	85,6
	Open	11	4,9	5,9	91,4
	Other	6	2,7	3,2	94,7
	I do not know/I do not answer	10	4,4	5,3	100,0
	Total	187	83,1	100,0	
Missing	System	38	16,9		
Total		225	100,0		

B1β. How would you characterize the Curriculum for Second Chance Schools?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Rigid	3	1,3	7,9	7,9
	Closed	2	,9	5,3	13,2
	Flexible	26	11,6	68,4	81,6
	Open	7	3,1	18,4	100,0
	Total	38	16,9	100,0	
Missing	System	187	83,1		
Total		225	100,0		

B2. Which of the following educational terms do you know?

Universal design for learning (UDL)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I know	54	24,0	24,0	24,0
	I have heard of it but know very little about it	69	30,7	30,7	54,7
	I have never heard of it	102	45,3	45,3	100,0
	Total	225	100,0	100,0	

Intercultural education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I know	190	84,4	84,4	84,4
	I have heard of it but know very little about it	31	13,8	13,8	98,2

I have never heard of it	4	1,8	1,8	100,0
Total	225	100,0	100,0	

Inclusive education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I know	104	46,2	46,2	46,2
	I have heard of it but know very little about it	44	19,6	19,6	65,8
	I have never heard of it	77	34,2	34,2	100,0
	Total	225	100,0	100,0	

B3. Universal Design for Learning (UDL) is an educational framework aimed at improving teaching and learning for all individuals based on scientific evidence about how people learn. It embodies the idea of 'One School for All', i.e. a school that can adapt to the individual needs of 'different' students across the learning spectrum by developing curricula that target all students rather than the average student. To what extent do you consider that nowadays UDL is an educational necessity?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	201	89,3	89,3	Valid
	Moderate	22	9,8	9,8	
	Minimum/ Not at all	2	,9	,9	
	Total	225	100,0	100,0	
	Frequency	Percent	Valid Percent	Cumulative Percent	

B4. Are you familiar with Universal Design for Learning (UDL)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	32	14,2	26,0	26,0
	Moderate	54	24,0	43,9	69,9
	Minimum/ Not at all	37	16,4	30,1	100,0
	Total	123	54,7	100,0	
Missing	System	102	45,3		
Total		225	100,0		

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
\$Q5 ^a	111	49,3%	114	50,7%	225	100,0%

a. Group

\$Q5 Frequencies

	Responses		Percent of Cases
	N	Percent	
B5 Do you know UDL because of (select as many answers as apply)	16	13,1%	14,4%
Your basic studies			
Postgraduate studies	30	24,6%	27,0%
Special training in pedagogy from the Ministry of Education	18	14,8%	16,2%
Personal initiative for specialization in pedagogic issues from a private institution	58	47,5%	52,3%

Total	122	100,0%	109,9%
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a. Group

B6 Do you agree or disagree with the following statement?

The application of UDL presupposes curricula compatible with it in terms of their structural components, i.e. in the formation of objectives, methods, materials and assessment and designed so that they are addressed from the outset to all students, without the need for subsequent adjustments.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	39	17,3	31,7	31,7
	Rather agree	57	25,3	46,3	78,0
	Neither agree nor disagree	16	7,1	13,0	91,1
	Rather disagree	8	3,6	6,5	97,6
	Totally disagree	3	1,3	2,4	100,0
	Total	123	54,7	100,0	
Missing	System	102	45,3		
Total		225	100,0		

B7. Have you applied in the past or are you currently applying UDL?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	44	19,6	35,8	35,8
	NO	79	35,1	64,2	100,0
	Total	123	54,7	100,0	
Missing	System	102	45,3		
Total		225	100,0		

B8. Which of the following UDL guidelines have you incorporated/do you incorporate into your teaching?

1 Providing multiple means of representation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	40	17,8	90,9	90,9
	NO	4	1,8	9,1	100,0
	Total	44	19,6	100,0	
Missing	System	181	80,4		
Total		225	100,0		

2 Provide multiple means of engagement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	34	15,1	77,3	77,3
	NO	10	4,4	22,7	100,0
	Total	44	19,6	100,0	
Missing	System	181	80,4		
Total		225	100,0		

3 Providing multiple means of action and expression

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	36	16,0	81,8	81,8
	NO	8	3,6	18,2	100,0
	Total	44	19,6	100,0	
Missing	System	181	80,4		

Total	225	100,0		
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Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
\$Q9 ^a	44	19,6%	181	80,4%	225	100,0%

a. Group

\$Q9 Frequencies

	Responses		Percent of Cases
	N	Percent	
B9 By implementing UDL Teaching methods and you differentiate your means teaching regarding (Select as many answers as apply)	38	28,8%	86,4%
The educational material	35	26,5%	79,5%
Educational activities	32	24,2%	72,7%
Evaluation	27	20,5%	61,4%
Total	132	100,0%	300,0%

a. Group

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
\$Q10 ^a	44	19,6%	181	80,4%	225	100,0%

a. Group

§Q10 Frequencies

	Responses	Percent of Cases		
		N	Percent	
B10. What are the most common problems you faced/are facing when implementing UDL (Up to 3 answers)	Curricula	25	23,6%	56,8%
	Insufficient training	11	10,4%	25,0%
	Absence of support (from PEKES/SCHOOL UNIT ADDRESS/COLLEAGUES)	10	9,4%	22,7%
	Lack of time to prepare	15	14,2%	34,1%
	Inadequate school infrastructure (facilities, technological equipment)	32	30,2%	72,7%
	Students' attitudes	8	7,5%	18,2%
	Attitudes of students' guardians	5	4,7%	11,4%
Total	106	100,0%	240,9%	

a. Group

B11 To what extent are you satisfied with the implementation of UDL regarding the following issues?

1 It gives you satisfaction and a high sense of self-esteem

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	37	16,4	84,1	84,1
	Moderate	5	2,2	11,4	95,5
	Minimum/ Not at all	2	,9	4,5	100,0
	Total	44	19,6	100,0	
Missing	System	181	80,4		
Total		225	100,0		
		Frequency	Percent	Valid Percent	Cumulative Percent

2 It contributes to the activation/participation of all students and improves their performance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	36	16,0	81,8	Valid
Missing	Moderate	7	3,1	15,9	
	Minimum/ Not at all	1	,4	2,3	
	Total	44	19,6	100,0	
	System	181	80,4		Missing
Total	225	100,0			Total
		Frequency	Percent	Valid Percent	Cumulative Percent

3 Especially for students who are differentiated in terms of abilities and/or ethnic origin, positive results are observed and in particular a high rate of participation and performance compared to the results of applying conventional teaching models

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	34	15,1	77,3	77,3
	Moderate	9	4,0	20,5	97,7
	Minimum/ Not at all	1	,4	2,3	100,0
	Total	44	19,6	100,0	
Missing	System	181	80,4		
Total		225	100,0		

4 Contributes to the development of relationships between students based on mutual respect, tolerance and acceptance of differences by promoting cooperation between them

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	36	16,0	81,8	81,8

	Moderate	7	3,1	15,9	97,7
	Minimum/ Not at all	1	,4	2,3	100,0
	Total	44	19,6	100,0	
Missing	System	181	80,4		
Total		225	100,0		

B12. Intercultural education respects and utilizes cultural difference with discrimination and exclusion of people with different linguistic and cultural formation of those conditions that ensure the acceptance of otherness and the integration of students in the educational process. To what extent do yo education is a necessity for the modern school?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	204	90,7	90,7	90,7
	Moderate	19	8,4	8,4	99,1
	Minimum/ Not at all	2	,9	,9	100,0
	Total	225	100,0	100,0	

B13. Have you implemented or are you implementing the intercultural education model in your teaching?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	92	40,9	41,6	41,6
	NO	129	57,3	58,4	100,0
	Total	221	98,2	100,0	
Missing	System	4	1,8		
Total		225	100,0		

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
\$Q14 ^a	91	40,4%	134	59,6%	225	100,0%

a. Group

\$Q14 Frequencies

	Responses		Percent of Cases
	N	Percent	
B14. When applying the Teaching methods and model of intercultural means education you differentiate your teaching with respect to (They choose what they want)	62	26,7%	68,1%
The educational material	64	27,6%	70,3%
Educational activities	64	27,6%	70,3%
Evaluation	42	18,1%	46,2%
Total	232	100,0%	254,9%

a. Group

1 It gives you satisfaction and a high sense of self-esteem

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	72	32,0	78,3	78,3
	Moderate	18	8,0	19,6	97,8
	Minimum/ Not at all	2	,9	2,2	100,0
	Total	92	40,9	100,0	
Missing	System	133	59,1		
Total		225	100,0		

2 It contributes to the activation/participation of all students and improves their performance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	72	32,0	78,3	78,3
	Moderate	19	8,4	20,7	98,9
	Minimum/ Not at all	1	,4	1,1	100,0
	Total	92	40,9	100,0	
Missing	System	133	59,1		
Total		225	100,0		

3 Especially for students who are differentiated in terms of abilities and/or ethnic origin, positive results are observed and in particular a high rate of participation and performance compared to the results of applying conventional teaching models

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	72	32,0	78,3	78,3
	Moderate	19	8,4	20,7	98,9
	Minimum/ Not at all	1	,4	1,1	100,0
	Total	92	40,9	100,0	
Missing	System	133	59,1		
Total		225	100,0		

4 Contributes to the development of relationships between students based on mutual respect, tolerance and acceptance of differences by promoting cooperation between them

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	76	33,8	82,6	82,6
	Moderate	14	6,2	15,2	97,8
	Minimum/ Not at all	2	,9	2,2	100,0
	Total	92	40,9	100,0	
Missing	System	133	59,1		
Total		225	100,0		

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
\$Q16 ^a	92	40,9%	133	59,1%	225	100,0%

a. Group

\$Q16 Frequencies

	Responses	N	Percent	Percent of Cases
B16 What are the most common problems you face when implementing the intercultural education model? (Up to 3 answers)	Curricula	48	21,4%	52,2%
	Insufficient training	24	10,7%	26,1%
	Absence of support (from PEKES/SCHOOL UNIT ADDRESS/COLLEAGUES)	25	11,2%	27,2%
	Lack of time to prepare	40	17,9%	43,5%

Inadequate school infrastructure (facilities, technological equipment)	56	25,0%	60,9%
Students' attitudes	21	9,4%	22,8%
Attitudes of students' guardians	10	4,5%	10,9%
Total	224	100,0%	243,5%

a. Group

B17. *Inclusive education is about treating all students based on a value system that accepts and respects diversity arising from gender, ethnicity, race, language, social and educational background, disability and aims at "EDUCATION FOR ALL ».* To what extent do you consider the inclusion of students with special needs/disability in mainstream schools a necessity?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	195	86,7	86,7	86,7
	Moderate	24	10,7	10,7	97,3
	Minimum/ Not at all	6	2,7	2,7	100,0
	Total	225	100,0	100,0	

B18. Have you implemented or are you implementing inclusive education practices in your teaching?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	82	36,4	55,4	55,4
	NO	66	29,3	44,6	100,0
	Total	148	65,8	100,0	

Missing System	77	34,2		
Total	225	100,0		

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
\$Q19 ^a	82	36,4%	143	63,6%	225	100,0%

a. Group

\$Q19 Frequencies

	Responses		Percent of Cases
	N	Percent	
B19. When implementing inclusive education you differentiate your teaching methods and means	63	28,9%	76,8%
in terms of (They choose what they want) The educational material	53	24,3%	64,6%
Educational activities	55	25,2%	67,1%
Evaluation	47	21,6%	57,3%
Total	218	100,0%	265,9%

a. Group

B20. To what extent are you satisfied with the implementation of inclusive education regarding the following topics? (Choose as many as they want)

1 It gives you satisfaction and a high sense of self-esteem

	Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	Very much/Much	68	30,2	82,9	82,9
	Moderate	14	6,2	17,1	100,0
	Total	82	36,4	100,0	
Missing	System	143	63,6		
Total		225	100,0		

2 It contributes to the activation/participation of all students and improves their performance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	68	30,2	82,9	82,9
	Moderate	14	6,2	17,1	100,0
	Total	82	36,4	100,0	
Missing	System	143	63,6		
Total		225	100,0		

3 Especially for students who are differentiated in terms of abilities and/or ethnic origin, positive results are observed and in particular a high rate of participation and performance compared to the results of applying conventional teaching models

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	73	32,4	89,0	89,0
	Moderate	8	3,6	9,8	98,8

Minimum/ Not at all	1	,4	1,2	100,0
Total	82	36,4	100,0	
Missing System	143	63,6		
Total	225	100,0		

4 Contributes to the development of relationships between students based on mutual respect, tolerance and acceptance of differences by promoting cooperation between them

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	74	32,9	90,2	90,2
	Moderate	8	3,6	9,8	100,0
	Total	82	36,4	100,0	
Missing System		143	63,6		
Total		225	100,0		

Case Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
\$Q21 ^a	82	36,4%	143	63,6%	225	100,0%

a. Group

\$Q21 Frequencies

Responses

	N	Percent	Percent of Cases
B21 What are the most common problems you face in implementing inclusive education? (Up to 3 answers)	45	22,5%	54,9%
Insufficient training	25	12,5%	30,5%
Absence of support (from PEKES/SCHOOL UNIT ADDRESS/COLLEAGUES)	25	12,5%	30,5%
Lack of time to prepare	33	16,5%	40,2%
Inadequate school infrastructure (facilities, technological equipment)	46	23,0%	56,1%
Students' attitudes	18	9,0%	22,0%
Attitudes of students' guardians	8	4,0%	9,8%
Total	200	100,0%	243,9%

a. Group

B22. To what extent do you think that the educational framework of Universal Design for Learning (UDL) converges with the basic principles of intercultural and inclusive education: equality, mutual understanding, mutual respect and mutual acceptance?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very much/Much	197	87,6	87,6	87,6
Moderate	21	9,3	9,3	96,9
Minimum/ Not at all	7	3,1	3,1	100,0
Total	225	100,0	100,0	

B23. To what extent do you think that UDL promotes, through its implementation, intercultural and inclusive education respectively?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	194	86,2	86,2	86,2
	Moderate	22	9,8	9,8	96,0
	Minimum/ Not at all	9	4,0	4,0	100,0
	Total	225	100,0	100,0	

B24. Under the current conditions in Greece, i.e. the interruption of live education due to the corona virus (COVID-19) pandemic and the universal application of distance education at all levels, do you think that UDL can be applied in the context of school distance learning?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	YES	121	53,8	53,8	53,8
	NO	104	46,2	46,2	100,0
	Total	225	100,0	100,0	

B25. To what extent do you think that UDL can promote intercultural and inclusive education in the context of school distance education?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very much/Much	111	49,3	49,3	49,3
	Moderate	60	26,7	26,7	76,0
	Minimum/ Not at all	54	24,0	24,0	100,0
	Total	225	100,0	100,0	

x-square tests

A6. Level of studies * A3. You work as Crosstabulation

% within A3. You work as

		A3. You work as			
		Teacher of general secondary education	Teacher of special education (Integration Department or Parallel Support)	Teacher at a Second Chance School (SCS)	Total
A6. Highest level of studies	Basic degree from a higher educational institution or technological institution	45,6%	7,9%	18,4%	34,7%
	Postgraduate Diploma (MASTER)/ Doctoral Diploma (PhD)	54,4%	92,1%	81,6%	65,3%
Total		100,0%	100,0%	100,0%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	24,371 ^a	2	0,000
Likelihood Ratio	27,692	2	0,000
Linear-by-Linear Association	13,050	1	0,000
N of Valid Cases	225		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 13,17.

Crosstab

% within A6. Highest level of studies

		A6. Highest level of studies			
		Basic degree from a higher educational institution or technological institution	Postgraduate Diploma (MASTER)/ Doctoral Diploma (PhD)		Total
B11.3 Especially for students who are differentiated in terms of abilities and/or ethnic origin, positive results are observed and in particular a high rate of participation and performance compared to the results of applying conventional teaching models	Very much/much	53,8%	87,1%		77,3%
	Moderate	38,5%	12,9%		20,5%
	Minimum/Not at all	7,7%			2,3%

Total	100,0%	100,0%	100,0%
-------	--------	--------	--------

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6,620 ^a	2	0,037
Likelihood Ratio	6,473	2	0,039
Linear-by-Linear Association	6,441	1	0,011
N of Valid Cases	44		

a. 3 cells (50,0%) have expected count less than 5. The minimum expected count is ,30.

Crosstab

% within A3. You work as

		A3. You work as			Total
		Teacher of general secondary education	Teacher of special education (Integration Department or Parallel Support)	Teacher at a Second Chance School (SCS)	
B2.1 UNIVERSAL DESIGN FOR LEARNING (UDL)	I know	18,1%	52,6%	18,4%	24,0%
	I have heard of it but know very little about it	34,9%	15,8%	28,9%	30,7%
	I have never heard of it	47,0%	31,6%	52,6%	45,3%
Total		100,0%	100,0%	100,0%	100,0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	21,389 ^a	4	0,000
Likelihood Ratio	19,032	4	0,001
Linear-by-Linear Association	0,011	1	0,915
N of Valid Cases	225		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 9,12.

Crosstab

% within A5. Do you teach in mixed classes?

		A5. Do you teach in mixed classes?		Total
		YES	NO	
B2.1 UNIVERSAL DESIGN FOR LEARNING (UDL)	I know	30,3%	15,1%	24,0%
	I have heard of it but know very little about it	32,6%	28,0%	30,7%
	I have never heard of it	37,1%	57,0%	45,3%
Total		100,0%	100,0%	100,0%


Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	10,417 ^a	2	0,005
Likelihood Ratio	10,648	2	0,005
Linear-by-Linear Association	10,340	1	0,001
N of Valid Cases	225		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 22,32.

Crosstab

APPENDIX C: Approvals for research conduct


ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
ΥΠΟΥΡΓΕΙΟ
ΠΑΙΔΕΙΑΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ

ΓΕΝΙΚΗ ΓΡΑΜΜΑΤΕΙΑ
ΠΡΟΤΟΒΑΘΜΙΑΣ, ΔΕΥΤΕΡΟΒΑΘΜΙΑΣ
ΕΚΠΑΙΔΕΥΣΗΣ ΚΑΙ ΕΙΔΙΚΗΣ ΑΓΩΓΗΣ
ΓΕΝΙΚΗ ΔΙΕΥΘΥΝΣΗ ΣΠΟΥΔΩΝ
ΠΡΩΜΙΑΣ ΚΑΙ ΔΙΘΜΙΑΣ ΕΚΠΑΙΔΕΥΣΗΣ
ΔΙΕΥΘΥΝΣΗ ΣΠΟΥΔΩΝ, ΠΡΟΓΡΑΜΜΑΤΩΝ ΚΑΙ
ΟΡΓΑΝΩΣΗΣ ΔΙΘΜΙΑΣ ΕΚΠ/ΣΗΣ
ΤΜΗΜΑ Α'

Ταχ. Δ/ση: Ανδρέα Παπανδρίου 37
Τ.Κ. – Πόλη: 15180 Μαρούσι
Ιστοσελίδα: www.minedu.gov.gr
Πληροφορίες: Αν. Πασχαλίδου
Μ. Γάγολα
Τηλέφωνο: 210-3443422
210-3442240

ANASTASIA PASCHALIDOU
2021-04-23 09:37:57
ANASTASIA PASCHALIDOU
ΟΛ-ANASTASIA PASCHALIDOU
C-GPI
Ε-Ελληνικό Public Administration Certification System
E-anastasiou@inedu.gov.gr
Public key: Βαθμός Ασφαλείας:
Να διατηρηθεί μέχρι:
Βαθμ. Προτεραιότητας:

Αθήνα, 23-04-2021
Αρ. Πρωτ. 46703/Δ2

ΠΡΟΣ:

- κ. Παρασκευή Μάρκου
parevage@gmail.com
paraskevi.markou2@gmail.com
- Διευθύνσεις Δ/θμιας Εκπ/σης Α', Β',
Γ' Αθήνας, Ανατ. Αττικής, Ανατ.
Θεσ/νίκης, Δυτ. Θεσ/νίκης,
Αργολίδας, Αρκαδίας, Λακωνίας,
Μεσσηνίας, Βοιωτίας και Εύβοιας

ΘΕΜΑ: Έγκριση διεξαγωγής έρευνας

Σχ.ετ.: Το με αρ. πρωτ. εισ. Υ.ΠΑΙ.Θ. 20867/Δ2/23-02-2021 έγγραφο

Απαντώντας σε σχετική αίτησή σας και μετά τη γνωμοδότηση του Ινστιτούτου Εκπαιδευτικής Πολιτικής (**πράξη 09/2021 του Δ.Σ.**), σας γνωρίζουμε ότι **επιτρέπει** τη διεξαγωγή έρευνας από την κ. **Παρασκευή Μάρκου** κατά τη διάρκεια του σχολικού έτους **2020-2021** με τις εξής προϋποθέσεις:

α) Πριν από την έναρξη της έρευνας να γίνει ενημέρωση του Διευθυντή και του συλλόγου Διδασκόντων των σχολικών μονάδων Δ/θμιας Εκπ/σης, οι οποίες θα συμμετάσχουν στην έρευνα, σχετικά με τη διαδικασία διεξαγωγής της.

β) Η έρευνα να γίνει με τη σύμφωνη γνώμη τους.

γ) Οι εκπαιδευτικοί να συμπληρώσουν τα ερωτηματολόγια ή/και να συμμετάσχουν στις ημιδομημένες συνεντεύξεις **ανώνυμα** και εφόσον το επιθυμούν, εκτός ωρολογίου προγράμματος.

δ) Οι εκπαιδευτικοί να ενημερωθούν για το πλαίσιο του Καθολικού Σχεδιασμού για τη Μάθηση (ΚΣΜ) και να συμπληρώσουν τα ημερολόγια αναστοχασμού **ανώνυμα** και εφόσον το επιθυμούν, εκτός ωρολογίου προγράμματος

ε) Ιδιαίτερη μέριμνα να δοθεί στην τήρηση των μέτρων υγειονομικής προστασίας από τον κορωνοϊό COVID-19 και στη διασφάλιση της απαραίτητης απόστασης (ενάμισι (1,5) μέτρο) μεταξύ των συμμετεχόντων, για την αποφυγή διάδοσης του κορωνοϊού COVID-19.

στ) Η ηχογράφηση των εκπαιδευτικών να γίνει αποκλειστικά για τις ανάγκες της συγκεκριμένης έρευνας και τα ηχητικά αρχεία, μετά το πέρας της έρευνας, να καταστραφούν. Τα αρχεία της ηχογράφησης να μην χρησιμοποιηθούν για κανέναν άλλο σκοπό παρά μόνο για τις ανάγκες συλλογής και ανάλυσης των ερευνητικών δεδομένων. Σε καμία περίπτωση να μην επιχειρηθεί δημόσια χρήση των ακουστικών προϊόντων στο σύνολό τους ή έστω τμήματος αυτών, στο πλαίσιο οποιασδήποτε ερευνητικής ή ακαδημαϊκής δραστηριότητας της ερευνήτριας. Την απόλυτη και αποκλειστική ευθύνη για τη φύλαξη, τη διαχείριση και την καταστροφή των εν λόγω αρχείων φέρει η υπεύθυνη ερευνήτρια, η οποία οφείλει να διασφαλίσει την ανωνυμία των συμμετεχόντων και του σχολείου.

ζ) Η συγκέντρωση και μελέτη των στοιχείων να γίνουν σύμφωνα με την αρχή προστασίας των δεδομένων προσωπικού χαρακτήρα και να μην δημοσιοποιηθούν ευαίσθητα προσωπικά δεδομένα.

Επισημαίνεται ότι η συμμετοχή στην έρευνα δεν είναι υποχρεωτική.

Η έρευνα έχει θέμα: **«Πρώθηση της διαπολιτισμικής εκπαίδευσης και της συμπερίληψης μαθητών με ειδικές εκπαιδευτικές ανάγκες/αναπηρία στη γενική δευτεροβάθμια εκπαίδευση»**

και απευθύνεται σε εκπαιδευτικούς Γυμνασίων και Γενικών Λυκείων των Διευθύνσεων Διθμίας Εκπ/σης Α', Β', Γ' Αθήνας, Ανατ. Αττικής, Ανατ. Θεσ/νίκης, Δυτ. Θεσ/νίκης, Αργολίδας, Αρκαδίας, Λακωνίας, Μεσσηνίας, Βοιωτίας και Εύβοιας.

Για την πραγματοποίηση της έρευνας θα πρέπει:

1. Οι επισκέψεις της ερευνήτριας στα σχολεία να γίνουν μετά από συνεννόηση με τον Διευθυντή και σε συνεργασία με τον σύλλογο καθηγητών των σχολείων, ώστε να μην παρεμποδίζεται η ομαλή διεξαγωγή των μαθημάτων.

2. Κατά τις επισκέψεις στα σχολεία να τηρούνται αυστηρά και κατά προτεραιότητα τα οριζόμενα στις εκάστοτε Κοινές Υπουργικές Αποφάσεις ή/και εγκυκλίους τους ΥΠΑΙΘ που αφορούν στα μέτρα ασφαλούς λειτουργίας των εκπαιδευτικών μονάδων για την αποφυγή διάδοσης του κορωνοϊού, καθώς και τα κατά τόπους ισχύοντα μέτρα και απαγορεύσεις του COVID-19.

Ωστόσο σε κάθε περίπτωση **προτεραιότητα πρέπει να δοθεί στη μείωση της πιθανότητας να εκτεθεί το εκπαιδευτικό προσωπικό και το μαθητικό δυναμικό των σχολείων σε επικίνδυνο ιικό φορτίο**. Κατά συνέπεια, και ανεξάρτητα από την παιδαγωγική ή επιστημονική καταλληλότητα και εγκυρότητα της έρευνας, οι διευθύνσεις των σχολείων έχουν την τελική αρμοδιότητα αναφορικά με τη διεξαγωγή της.

3. Μετά την ολοκλήρωση της έρευνας να κατατεθεί ηλεκτρονικό αντίτυπο της ερευνητικής εργασίας σε ψηφιακό δίσκο στο πρωτόκολλο του Ινστιτούτου Εκπαιδευτικής Πολιτικής (Αν. Τσόχα 36, 115 21 Αθήνα), καθώς επίσης και ενυπόγραφη, σύμφωνη ή όχι, γνώμη της ερευνήτριας για το εάν επιτρέπει στο Ι.Ε.Π. να προβεί σε ηλεκτρονική ανάρτηση της ερευνητικής εργασίας. Το αντίτυπο, αφού κατατεθεί στο πρωτόκολλο, θα διαβιβαστεί αρμοδίως στη βιβλιοθήκη του Ι.Ε.Π..

4. Οι Διευθυντές των Διευθύνσεων Διευθύνσεις Δίθμιας Εκπ/σης Α΄, Β΄, Γ΄ Αθήνας, Ανατ. Αττικής, Ανατ. Θεσ/νίκης, Δυτ. Θεσ/νίκης, Αργολίδας, Αρκαδίας, Λακωνίας, Μεσσηνίας, Βοιωτίας και Εύβοιας να ενημερώσουν σχετικά τους Διευθυντές των σχολικών μονάδων αρμοδιότητάς τους, ώστε να διευκολύνουν την ενδιαφερόμενη στην πραγματοποίηση της έρευνας αυτής σύμφωνα με τα παραπάνω.

**ΜΕ ΕΝΤΟΛΗ ΥΦΥΠΟΥΡΓΟΥ
Ο ΓΕΝΙΚΟΣ ΓΡΑΜΜΑΤΕΑΣ
Π/ΘΜΙΑΣ, Δ/ΘΜΙΑΣ ΕΚΠ/ΣΗΣ
ΚΑΙ ΕΙΔΙΚΗΣ ΑΓΩΓΗΣ**

ΑΛΕΞΑΝΔΡΟΣ ΚΟΠΤΣΗΣ

Εσωτ. Διανομή

- Γρ. Γεν. Γραμματέα ΠΕ, ΔΕ & Ειδ. Αγωγής
- Δ/ση Σπουδών, Προγράμτων & Οργάνωσης Δ.Ε., Τμ. Α΄

ΑΚΡΙΒΕΣ ΑΝΤΙΓΡΑΦΟ



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
ΥΠΟΥΡΓΕΙΟ ΠΑΙΔΕΙΑΣ ΚΑΙ ΘΡΗΣΚΕΥΜΑΤΩΝ

ΓΕΝΙΚΗ ΓΡΑΜΜΑΤΕΙΑ ΕΠΑΓΓΕΛΜΑΤΙΚΗΣ ΕΚΠΑΙΔΕΥΣΗΣ,
ΚΑΤΑΡΤΙΣΗΣ, ΔΙΑ ΒΙΟΥ ΜΑΘΗΣΗΣ ΚΑΙ ΝΕΟΛΑΙΑΣ
ΔΙΕΥΘΥΝΣΗ ΔΙΑ ΒΙΟΥ ΜΑΘΗΣΗΣ

ΤΜΗΜΑ ΟΡΓΑΝΩΣΗΣ ΚΑΙ ΕΦΑΡΜΟΓΗΣ
ΕΚΠΑΙΔΕΥΣΗΣ ΕΝΗΛΙΚΩΝ

Ταχ. Δ/ση : Α. Παπανδρέου 37
Τ.Κ.- Πόλη : 15180, Μαρούσι
Πληροφορίες : Ρ. Σταματοπούλου
Τηλέφωνο : 213 131 1623

MAGDALINI SYNGROU
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EU09
Ομότιμη Public Administrator Certification Services
E.syngrou@minedu.gov.gr
Public key:

Μαρούσι, 11-2-2021
Αρ. Πρωτ: Κ1/16613

Προς: κ. Μάρκου Παρασκευή

Κοιν: Σ.Δ.Ε.: Επισυναπτόμενος Πίνακας

Θέμα: Έγκριση διεξαγωγής έρευνας σε Σχολεία Δεύτερης Ευκαιρίας
Σχετ.: 540/4-1-2021

Σε απάντηση του ανωτέρω σχετικού έγγραφου αιτήματός σας για διεξαγωγή εμπειρικής έρευνας στα Σχολεία Δεύτερης Ευκαιρίας (αναφέρονται στον επισυναπτόμενο πίνακα), σας ενημερώνουμε ότι μετά από εξέταση του φακέλου σας, διαπιστώθηκε ότι πληροί τις προϋποθέσεις, και ως εκ τούτου εγκρίνεται η διεξαγωγή της.

Επισημαίνεται ότι η διεξαγωγή των ερευνών σε Σ.Δ.Ε. θα πρέπει να γίνεται αφενός σε συνεργασία με τους Διευθυντές των Σ.Δ.Ε., προκειμένου να μην διαταράσσεται η εύρυθμη λειτουργία των Σχολείων και αφετέρου με τη συναίνεση εκπαιδευτών και εκπαιδευομένων (στις περιπτώσεις που συμμετέχουν στις έρευνες).

Τέλος, παρακαλούμε τα αποτελέσματα των ερευνών να κοινοποιούνται στη Γ.Γ.Ε.Ε.Κ. Δ.Β.Μ & Ν., καθώς μπορεί να φανούν χρήσιμα για τη βελτίωση της λειτουργίας των Σ.Δ.Ε.

Η Προϊσταμένη της Διεύθυνσης
Διά Βίου Μάθησης

Μαγδαληνή Συγγρού

Εσωτερική διανομή:

1. Γραφείο Γενικού Γραμματέα Ε.Ε.Κ. Δ.Β.Μ & Ν.
2. Διεύθυνση Διά Βίου Μάθησης
3. Τμήμα Οργάνωσης και Εφαρμογής Εκπαίδευσης Ενηλίκων

APPENDIX D: Signed consent form for research not involving students

The form for securing the signed consent of the research participants must include the following necessary information:

1. RESEARCH PURPOSE:

The purpose of the research is to highlight the Universal Design for Learning as an appropriate educational framework through the implementation of which inclusive and intercultural education is ensured.

2. RESEARCH PROCEDURE:

Methodological triangulation has been chosen, specifically the use of a questionnaire, an interview and a reflection diary. The sample consists of teachers of all secondary education specialties who serve in general high schools and high schools as well as in Second Chance Schools (SCSs). In particular, the interviews will be recorded, ensuring the anonymity of the participants without reference to personal information that could lead to the identification of the participants.

3. EXPECTED BENEFITS FROM THE RESEARCH:

The research aimed at highlighting the Universal Design for Learning as the appropriate educational framework to ensure access and equality in education for all students, through the promotion of intercultural and inclusive education, key issues for our time in which the heterogeneity of the student population is more intense than ever, it will highlight the necessity of its implementation, the attitudes of teachers and their pedagogical training, possible difficulties and obstacles of its implementation, established benefits from its implementation, suggestions for future implementation.

4. POSSIBLE RISKS / DIFFICULTIES:

The difficulties lie in two issues: on the one hand, the special and extraordinary circumstances due to the Covid-19 pandemic entailing periods in which schools remain closed and there may be a delay or readjustment of the research timeline, on the other hand, the possibility of some participants withdrawing from the investigation due to personal obstacles in the extraordinary context of the operation of schools (online education).

5. ANONYMITY / PROTECTION OF PERSONAL DATA....

The anonymity of the participants and the protection of their personal data is ensured as the questionnaires, interviews and reflection journals will be conducted anonymously.

6. REFUSAL / WITHDRAWAL:

Participants may refuse to participate in the research and/or withdraw from it at any stage.

INVESTIGATOR'S SIGNATURE / DATE

MARKOU PARASKEVI/04-04-2021

7. RESPONSIBLE STATEMENT / SIGNATURE:

I DECLARE THAT I AGREE TO PARTICIPATE IN THE RESEARCH PROCESS.

SIGNATURE OF RESEARCH PARTICIPANT/DATE

APPENDIX E: Interview Protocols

Topic: Universal Design for Learning (UDL) and its contribution to the promotion of intercultural and inclusive education.

Interview 1

Interview time: 7:00 p.m.

Date: 04/04/2021

Place: Halkida/Evia

Estimated interview time: 40 minutes

Interviewer: Markou Paraskevi

Person giving the interview: Male/mathematician of special education

Kind of interview: Oral via SKYPE

Participant Update: Yes

Interview 2

Interview time: 8:52 pm

Date: 29/08/2021

Place: Halkida/Evia

Estimated interview time: 40 minutes

Interviewer: Markou Paraskevi

Person giving the interview: Female/ mathematician of special education

Place where the person gives the interview: SKYPE

Participant Update: Yes

Interview 3

Interview time: 6:30 p.m.

Date: 07/5/2021

Place: Halkida/Evia

Estimated interview time: 40 minutes

Interviewer: Markou Paraskevi

Person giving the interview: Female/SCSs educator

Kind of interview: Oral via SKYPE

Participant Update: Yes

Interview 4

Interview time: 11:00 p.m.

Date: 13/5/2021

Place: Halkida/Evia

Estimated interview time: 40 minutes

Interviewer: Markou Paraskevi

Person giving the interview: Female/philologist/ educator in SCSs

Kind of interview: Oral via SKYPE

Participant Update: Yes

Interview 5

Interview time: 7:00 p.m.

Date: 22-06-2021
Place: Halkida/Evia
Estimated interview time: 40 minutes
Interviewer: Markou Paraskevi
Person giving the interview: Female/philologist
Kind of interview: Written
Participant Update: Yes

Interview 6
Interview time: 7:00 p.m.
Date: 28-062021
Place: Halkida/Evia
Estimated interview time: 40 minutes
Interviewer: Markou Paraskevi
Person giving the interview: Male/mathematician of special education
Kind of interview: Written
Participant Update: Yes

APPENDIX F: Transcribed interviews

File Name: Interview 1

Audio Length: 39:55:00

Date: 4/4/2021

[00:01]Interviewer: Good afternoon.

[00:02]Interviewee: Good afternoon.

[00:03]Interviewer: You have been informed about the research and the interview process and you have signed the relevant consent form for interview recording. Right?

[00:13]Interviewee: Of course, yes.

[00:14]Interviewer: Fine, we can start. First of all, I would like to thank you once again for your participation in the interview.

[00:22] Interviewee: Be well.

[00:24]Interviewer: I would like to ask. Can the classes you teach be described as mixed?

[00:32]Interviewee: I have to make it clear that I am not in a regular department. I'm in an integration department. And I'm in a school uh away, of a provincial town, and in this department clearly, since I am in an integration department I have students with learning difficulties and at the same time there are students who are of other national origin.

[00:59]Interviewer: With learning difficulties...

[01:00]Interviewee: Of course, no one else can study in the integration department ... apart from learning difficulties; there are just children [PAUSE] who are [PAUSE] yes[PAUSE] who have other national origins.

[01:12]Interviewer: Nice. [PAUSE] How many students are usually included in the classes in which you teach?

[01:20]Interviewee: I think this is a bit informal [PAUSE] but [PAUSE] so with the advisors that [PAUSE] I essentially follow the advice of our advisors, so I have kept up to four. Of course [PAUSE] I have only one class for up to four people. I usually have two or three [PAUSE] three students.

[01:40]Interviewer: Do you face any difficulties in your teaching? [PAUSE] or due to lack of infrastructure [PAUSE] of media [PAUSE]

[01:53]Interviewee: [PAUSE] No, I would not say that [PAUSE] something. that is, I'm in a classic public school [PAUSE] I have my class [PAUSE] yes[PAUSE] I'm not asking for anything special.

[02:04]Interviewer: Do you teach in gymnasium or lyceum?

[02:07]Interviewee: In gymnasium.

[02:07]Interviewer: General lyceum.

[02:08]Interviewee: Yes.

[02:10]Interviewer: [PAUSE] Do you follow curricula?

[02:16]Interviewee: Yes [PAUSE] usually [PAUSE] there are few times I will deviate [PAUSE] I may not focus on something that I think is not so useful for the children [PAUSE] okay, I will mention it and maybe in some smaller classes I will not start exactly as the program says [PAUSE] but [PAUSE] I will try to cover some gaps [PAUSE] I do not know if this [PAUSE] but in general yes. I keep as much as I can the line of [PAUSE] given by the Ministry.

[02:48]Interviewer: So how would you describe them if with a couple of words I asked you to give a description?

[02:55]Interviewee: Nice, I would say [PAUSE] until [PAUSE] and well. That is, we actually have two [PAUSE] I consider two [PAUSE] if we exclude the first class of the gymnasium which is a little [INAUDIBLE] class [PAUSE] and the curriculum does not help much, [PAUSE] the b and c class of gymnasium I think are quite satisfactory, so as they have built it, that is, for the children to get the knowledge they need.

[03:22]Interviewer: Nice. [PAUSE] do you take part in trainings?

[03:27]Interviewee: Yes [PAUSE] yes.

[03:30]Interviewer: When was the last time you participated in training?

[03:33]Interviewee: And now [INAUDIBLE] in training. In fact today it started [INAUDIBLE] [interrupted by the interviewer with the following question]

[03:40]Interviewer: In which subject?

[03:42]Interviewee: The Ministry of Education educates us on new technologies. Essentially on the use of webex and platforms since we are in a Covid period and the lessons are done by distance. Of course, ok, now I do not know if I can comment on it too, the ministry was late, almost seven months have passed, we could start September and the first day of training for us was today.

[04:08]Interviewer: I understand. How would you describe the climate of your school? Is it collaborative? Is there collaboration between fellow teachers, teachers and school manager, teachers and students, students between them?

[04:27]Interviewee: I personally consider myself quite lucky because I have fallen into a school that at least with our colleagues who are in the same subject we have good communication. [PAUSE] and yes [PAUSE] that is, we are constantly in contact and good cooperation, and they will listen to me and I will listen to them and [PAUSE] I think everything is for the good of the children, that is [PAUSE] in contrast to

what I have heard, that is, for schools that are so maybe even bigger, in more central ones which [PAUSE]the climate is more difficult.

[05:02] Interviewer: Are you trying to cultivate this climate of collaboration in students as well?

[05:08] Interviewee: Yes [PAUSE]I do not think [PAUSE]I always like [PAUSE]children [PAUSE]that is, maybe [PAUSE]yes, the children I like[PAUSE]that is, I don't like in the sense of who can obviously try to become better but I like the idea of trying to help one [PAUSE]even as a piece of advice [PAUSE]a weaker student .

[05:32] Interviewer: What teaching methods / techniques and support tools do you usually use in your course? Could you give me one or two examples?

[05:47] Interviewee: The course is a classic course, that is, I use a blackboard, the one with markers now [PAUSE] I use a lot of worksheets [PAUSE] yes, very rarely [PAUSE]a projector, that is not that [PAUSE]the whole school has one projector, that is not that we have the infrastructure in the field of technology [PAUSE]okay, once I found the time and thought I could teach something yes I used it. But this was one time, that is [PAUSE]my basis is the blackboard and the [PAUSE]lesson plans. I personally consider lesson plans very important.

[06:25] Interviewer: So, do you use these methods and tools because you have more access to them or because you think they are the ones that fit the best tools for your teaching?

[06:42] Interviewee: [PAUSE] Again uh for my lesson, because if you ask me about another lesson I might have had a different opinion, the way I will have it in my mind [PAUSE]because for my own lesson and the way it is structured [PAUSE]the pedagogical system is structured, that is, one [PAUSE]that is, yes, I consider that this is the best way.

[07:08] Interviewer: Nice, uh regarding your students, uh those as you said, are students with special educational needs or children, foreign students, with special educational needs uh how do you try to meet these needs of your students that many times I imagine are different?

[07:35] Interviewee: Yes [PAUSE] I try [PAUSE]I do not know if I can do it but I definitely try [PAUSE]I definitely take into account their needs. I try to make the lesson understood by everyone, that is, [PAUSE]still [PAUSE]I will try, that is [PAUSE]the children try, that is [PAUSE]I try to encourage them, to constantly raise them, to set goals and I certainly understand their difficulties, not all children are the same. Even the social environment can be different and this can be immediately seen in a classroom. That is, I try to take into account their difficulties.

[08:26] Interviewer: Nice. Do you know the terms intercultural education, inclusive education and Universal Design for Learning?

[08:37]Interviewee: Yes I know. I have attended seminars.

[08:40]Interviewer: Well, have these seminars been implemented under the auspices of the ministry of education or by a private body?

[08:48]Interviewee: From a private body, unfortunately, that is, we have paid for some of them [PAUSE]and as far as I know the Ministry of Education I do not have, it has not occurred to me that it has organized something [PAUSE]some [PAUSE]PEKES, ours PEKES for example very recently uh organized, it has organized some workshops uh but in general what I have done [PAUSE]that I have attended the Universal Design, I do not know now if I can say it from EEPEK. I do not know if this is allowed.

[09:31]Interviewer: Of course, yes, yes.

[09:32]Interviewee: and in fact now, now that I remembered it some time ago, but again by PEKES, not the ministry, maybe PEKES is a little more autonomous [PAUSE]I attended a seminar that had to do with inclusive education.

[09:49]Interviewer: Nice. As you are familiar with these terms, they are familiar to you, I would like you to tell me how you understand each of them and if you consider them, and if you consider that their application in the modern school is, it is, a necessity.

[10:08]Interviewee: I will say it again, because I am in a provincial school that I see and many economic immigrants, I think the reality that is, we have to see it, that leads us there, the classes now, my own I would say less, but the things we talk about with colleagues are cultural, multicultural, and the parents and students at my school are different countries. I have at least three or four nationalities in my mind, so [PAUSE]I also have children who have come from war, that is. I have two, at school not me again, who have come as children from the war, from Syria now recently. And I think every school should respect diversity and include all students and cultivate their values, and respect and mutual help [PAUSE]

[01:14]Interviewer: Nice. I will insist on the question, how do you specifically understand Universal Design for Learning?

[11:23]Interviewee: [PAUSE] yes [PAUSE]I think it is [PAUSE]... what is it now? Is it an educational practice? That aims at inclusion, one would say for all students [PAUSE]regardless of elements that differentiate[PAUSE]and tries to adapt the teaching to the needs of students.

[11:50]Interviewer: nice. I would like to ask you some [PAUSE]other questions, about how you teach, that is, for example in your teaching do you use digital material?

[12:10]Interviewee:

[PAUSE]No, I think [PAUSE] I think that first of all, we have a projector, you will tell me I could have had a computer[PAUSE] but[PAUSE] no I don't use it. I think I do it completely consciously[PAUSE] because

[PAUSE] the education system is structured like this, what we were saying with the study program in general, the education system is structured in such a way that it affects the study program [PAUSE] which doesn't let us escape from the whiteboard[PAUSE] I don't know, maybe the answer is because I also use a whiteboard. This is the main reason, i.e. when the child has to learn until the end of the third year of lyceum to learn to solve an equation, [PAUSE] the use of new technologies, I would say it would be a waste of time, it could be nice, maybe, we had a greater time, it would be even more gratifying, they may understand more, but the issue is to teach him to solve, not so much to understand. [COUGHS] Of course [PAUSE] in all of this I try to use perhaps elements of universal design, that is, for example I use visualization, I try to teach concepts through visual images, sometimes even songs but I do this during the lesson, the time I'm on the whiteboard. When I'm over the student.

[13:45]Interviewer: I understand.

[13:46]Interviewee: and even now in the computer that I am, even at that time I try at least as much as possible in the distance situation, but[PAUSE] I don't think I can escape[PAUSE] the system is what obliges us not to use the new technologies.

[13:59]Interviewer: So you think that there cannot be a flexibility regarding the use of media, different media, and here specifically in the question I asked you about digital material because of the curricula, of the goal that the specific educational system sets?

[14:21]Interviewee: For my own lesson, I say again[PAUSE] mathematics, I don't know if we have mentioned it before[PAUSE] no. And let me tell you something, I can't risk it now myself[PAUSE] that is, to try to learn from a child[PAUSE] to experiment on the child, that is to say that yes, he should understand mathematics[PAUSE] but[PAUSE] I don't have the time frame, I think. Maybe if I had the double hours or if the study program, maybe on its own[PAUSE] -that's a negative in the study program that I was saying before- [PAUSE] maybe a little more hours are needed so that I could apply something[PAUSE] maybe we even be forced to apply some techniques[PAUSE] to use new technologies.

[15:04]Interviewer: Let me inform you on this point that since 2008 it has been voted that universal design for learning is necessary in special education; do you have any knowledge on the subject? Have you heard that before?

[15:28]Interviewee: Well, officially, I haven't heard if I should [PAUSE] no, I don't know that.

[15:32]Interviewer: [PAUSE]

[15:34]Interviewee: Although I don't think that there is a need for any specific additional law to come out. I think by definition [PAUSE] the school has to[PAUSE] if we talk about the school that it has to be identified[PAUSE] at least in smaller classes and with education, yes it has to include all[PAUSE] all the

nationalities, all the children, with all the [PAUSE] difficulties which they may have[PAUSE] with all the[PAUSE] diversity.

[16:06]Interviewer: Understandable, yes understandable.

[16:08]Interviewee: I didn't know for sure that there was a law[PAUSE] yes, no I didn't, I won't lie.

[16:11]Interviewer: Let me ask if you use physical objects in your teaching. You want to teach a mathematical concept and to make it more understandable do you use some tangible objects?

[16:27]Interviewee: [PAUSE] no a specific one, at that time I can use, for example, the pens that I have in front of my students, i.e. I can borrow them for a while and explain to them what this is based on but [PAUSE] that they have a visual contact, i.e. what we said before, to be able to[PAUSE] draw something on the board[PAUSE] but use a separate object[PAUSE] I may have[PAUSE] once in the Pythagorean theorem but[PAUSE] it's in a lesson, isn't it[PAUSE]

[16:56]Interviewer: Is that what you were planning at the moment? Or have you planned it?

[17:02]Interviewee: [PAUSE]

[17:03]Interviewer: In advance [PAUSE]

[17:04]Interviewee: I usually try not to improvise. I mean I have predicted it[PAUSE]as the years have gone by[PAUSE]maybe I should put it a little differently[PAUSE]with experience the old improvisations [PAUSE]at some point they were recorded, [PAUSE]and they have been included in the[PAUSE] plan lesson, well[PAUSE]maybe someone[PAUSE]I can be influenced by a question that a student has and I improvise, but these are mostly few because, you know, usually the questions of the children as are basically the same[PAUSE]that after years I have managed to [PAUSE] included them in the lesson plan.

[17:51]Interviewer: Nice, do you connect your knowledge object, the one you teach, with real life?

[18:01]Interviewee: I try [PAUSE] I try, that is, I give them examples so that the children can understand. Of course, these are momentary[PAUSE] a little more I will arouse their interest because some children[PAUSE] I have in my mind[PAUSE] I have[PAUSE] I don't know, I have one more[PAUSE] I don't even know if it's a coincidence[PAUSE] I see that the children I have in the integration department have a more[PAUSE] a little more[PAUSE] technique I would say, that is, for example[PAUSE] they like engineering, but the practical part of it, so sometimes I try to arouse their interest[PAUSE] I mention to them that[PAUSE] the usefulness that an equation can have in a car engine or in a mobile phone, okay, maybe sometimes I tell them a lie[PAUSE] a lie in the sense that[PAUSE], the information is not correct[PAUSE] but mostly I do it in the sense to arouse their interest.

[18:59]Interviewer: [PAUSE]

[19:00]Interviewee: and I connect it, for example, when I'm in lyceum [PAUSE] I try from the problems we

do when we talk about discounts to connect it to their everyday life, that is, no [PAUSE] anymore I won't say it as their book says to them, for a t-shirt, I'll talk to them about a Play station for example, the[PAUSE]

[19:20]Interviewer: I see.

[19:21]Interviewee: Or for a cell phone [PAUSE] I wouldn't buy a DVD player, I would buy a cell phone, or an _____ I _____ Phone.

[19:27]Interviewer: As regards the activities you set the children to see if they have understood the theoretical part of your subject, is there a variety? Or are the activities differentiated according to their needs? Or not? Are they common to all?

[19:51]Interviewee: From time to time I do this too. I don't want to, I don't want to[PAUSE] because the children see one from the other, compare one with the other, no[PAUSE] I try not to do it too often as I told you and I've been trying since the beginning yes[PAUSE] that is, the needs of each child but[PAUSE] because I have noticed it[PAUSE] as many times as I have tried it usually children compare one to another and the success of one child can be misinterpreted by the other [PAUSE] sometimes and a little more often what I do is that[PAUSE] for my own children[PAUSE] for my own children I can give them a test or a competition, usually at the same time as the rest, with the other class, but having the subjects[PAUSE] and that's why I'm telling you[PAUSE] I have a good cooperation with the other professors[PAUSE] to have the same topics but with slightly different words [PAUSE] sometimes. Finally, I make the wording as simple as possible so that [PAUSE] can be given into the whole class. In other words, I'm trying to[PAUSE] the children who study in the integration section write the competition in the class with the subjects that I will have set[PAUSE] for the whole class[PAUSE] or[PAUSE] for my own children I will have adapted the themes but they really will be the same subjects.

[21:32]Interviewer: Not that there should be a simplification, an oversimplification.

[19:38]Interviewee: No, I don't do it and I explained the reason I said before.

[21:41]Interviewer: Understandable.

[21:42]Interviewee: Or if I do this, I do it for everyone, that is, let's say all and my own children will get the five _____ points.

[21:50]Interviewer: Understandable. I understand, you told me earlier that you generally try to create a climate of respect, unity, cooperation among the students, and not only you, but also the rest of your colleagues in your school[PAUSE] how do you try to cultivate it, this climate of respect and cooperation? Are you doing anything special projects? Through your attitude and behavior?

[22:23]Interviewee: No, I don't do any[PAUSE] I don't remember anyone, I just try to tell them that we

are a team and especially[PAUSE] usually when they come to the inclusion departments, the children who are in the first year of gymnasium feel a little uncomfortable[PAUSE] that is, I almost always have one child, at least one that[PAUSE] is ashamed to come to the integration department[PAUSE] in the integration department I try to explain to them that it's a group, all these kids, everyone I think yes[PAUSE] it unfolds fades away and even once if someone says from the other department you go to the integration department[PAUSE] these things happen[PAUSE] I try to tell them yes one supports the other.

[23:19]Interviewer: In regards to what you have just mentioned, have you ever tried or implemented the tactic of not having the integration department function as a separate group from the regular children's class?

[23:35]Interviewee: I do it, but I don't know [PAUSE]

[23:37]Interviewer: And you go [PAUSE]

[23:38]Interviewee: I go yes

[23:39]Interviewer: To their classes?

[23:41]Interviewee: In fact, they already exist [PAUSE] I will say once again about the good cooperation that there are times when I do the lesson myself[PAUSE] that is, in some departments[PAUSE] I don't do it often just[PAUSE] a little, in the first year, so that the children of the normal department also understand that the children who are in the integration departments are no different.

[24:05]Interviewer: [PAUSE]

[24:06]Interviewee: Either they enter my class [PAUSE] either I just sit as a listener or I study and do the lesson myself, substituting the professor, or letting the professor play my role. Yes I do.

[24:22]Interviewer: Nice, I understood.

[24:22]Interviewee: Mainly at the beginning.

[24:24]Interviewer: Let me ask you if a student is indifferent and does not participate, what do you do?

[24:32]Interviewee: [PAUSE] there are definitely moments when I get nervous, that is when I sometimes try to [PAUSE] as patiently as you can and you see that [PAUSE] you catch him once with the good, two with the good and he continues and doesn't care [PAUSE] that he didn't bring the book for the tenth time in a row [PAUSE] sometimes questions also come in, it's clear that you're not doing something well, but something needs to change [PAUSE] it's okay, I usually show understanding, I'll say it again, but the

children too, many times when you show a lot of understanding [PAUSE] take advantage of this. So you start[PAUSE] the procedure is to start, I take him with a sense of honor [PAUSE] but yes, maybe at the end [PAUSE] a little [PAUSE] yes [PAUSE] not to escape the limits in the sense of [PAUSE] to play the matter as well of the grade, to put it simply.

[25:32]Interviewer: To threaten i.e. [PAUSE]

[25:33]Interviewee: To threaten that we don't get along [PAUSE] and it could have consequences.

[25:37]Interviewer: Understood. If one of your students is not keeping up cognitively with the rest of your class, what do you do in this case?

[24:36]Interviewee: yes [PAUSE] maybe it wasn't understood before. If a student doesn't keep up with the class, I understand, the child doesn't [PAUSE] has difficulty [PAUSE]. I sometimes have the demand that he brings me his pen, for example, his book, his notebook, so when I have a student who is really struggling [PAUSE], I try to help this child learn[PAUSE] even in the third of what he does, in the fourth, I don't want him to learn everything, let him learn the simplest thing, I want the child to participate in the lesson. I demand from this student, even if it sounds a little strange, I demand it, to bring me the exercise that [PAUSE] I have given to him, not necessarily, written, memorized, just bring me the statement. Just to see that went into the process and see what he has for the next day.

[26:49]Interviewer: Understood.

[26:49]Interviewee: That is to say, I have also implemented a grading system that evaluates these attitudes, that is, did the child bring his notebook, did he bring his book, did he read his theory, and did he participate in the lesson? Did he write the exercise I told him? Even the exercise pronunciation, without solving it[PAUSE] that is, I try with this system to evaluate the child[PAUSE] not necessarily in terms of his cognition but more in terms of his consequence. Then he will get the corresponding grade [PAUSE]

[27:27]Interviewer: Yes.

[27:27]Interviewee: I won't drop him.

[27:28]Interviewer: Do you think all children can learn?

[27:33]Interviewee: If all children can learn [PAUSE] yes[PAUSE]I think so. Everyone can learn, it's just that everyone has a different [PAUSE] learning time. That is, the child, a child, and that's the problem, that is, gives up easily[PAUSE]and that's why we see weak students, it's that they may have difficulty in reading, they have some difficulties, and precisely where a student needs an hour to read, he gives up in ten minutes. But if he read for an hour, that is, he had a program and read for an hour, the next time he would

read for fifty minutes, the next forty minutes and at some point he would have brought it to half an hour! At least twenty minutes. More than twenty minutes, at least half an hour, that is, he would never have been able to learn in ten minutes that another student could learn, maybe a better student, but he would certainly have improved. But they don't spend time and that right away [PAUSE]so yes[PAUSE]. What was the question? If [PAUSE]

[28:46]Interviewer: If all students can learn.

[28:47]Interviewee: I believe they can.

[28:48]Interviewer: Well, if a student in your class provokes you with inappropriate behavior, you told me that you also have children who are of a different ethnicity, well, if a student behaves badly, racist towards these children, how would you react?

[29:11]Interviewee: [PAUSE]

[29:13]Interviewer: Do you react?

[29:17]Interviewee: Yes, I react, in the sense that I don't want[PAUSE]I don't want anything to happen in my class, and because I really want it to be a group, I try to show them the commonalities they have and not the differences, the different ones.

[29:33]Interviewer: Well, you don't react as I understand with a rebuke[PAUSE]but you try.

[29:39]Interviewee: for start[PAUSE]I'm always testing him[PAUSE]and as a person I'm quite patient in this, that is, for someone to get me to change my behavior[PAUSE]he has to try very hard[PAUSE]. So yes, I try as much as I can to get the children to do it together [PAUSE]and to understand everything they have in common despite their differences.

[30:05]Interviewer: If I'm not mistaken, you previously answered that you don't apply universal design for learning, and you explained to me that you don't do that because it doesn't fit with the Greek education system. Did I understand correctly?

[30:29]Interviewee: Yes.

[30:30]Interviewer: At least with the aim of the educational system, is this also applied to the rest of the educational practices we discussed, intercultural education and inclusive education? [PAUSE]That is, you do not apply these educational practices nor do you apply some, any of them?

[30:56]Interviewee: In an educational system with more[PAUSE]. If you ask me personally I agree with all this[PAUSE]the universal design, with the[PAUSE]but[PAUSE]I find it a bit impossible to implement. That is, in an educational system with more open programs of study or with different goals[PAUSE]universal

design for learning could be applied[PAUSE] yes all of these[PAUSE]could.

[31:40]Interviewer: [PAUSE]

[31:40]Interviewee: They could be applied.

[31:42]Interviewer: Well, and the same applies to the rest of the practices, i.e. the intercultural one [PAUSE]?

[31:47]Interviewee: Yes, inclusion and all these, of course.

[31:51]Interviewer: Well, let me ask you the following, are you a teacher in a general high school in the integration department, do you work [INTERRUPTION]

[31:58]Interviewee: Yes.

[31:59]Interviewer: Do you work or have you worked in second chance (adult) schools?

[32:06]Interviewee: Yes, I have[PAUSE]well, I have more years.

[32:09]Interviewer: Well [PAUSE]

[32:10]Interviewee: let's take it as years, that is, it is more years.

[32:12]Interviewer: Well , I would like to ask you then if you think that the aforementioned practices, intercultural education, inclusive education, universal design for learning, can have a better application in second chance schools.

[32:31]Interviewee: Yes, I see what you mean.

[32:33]Interviewer: Which are adult schools than general secondary schools which are aimed at minors and why?

[32:41]Interviewee: First of all the main thing is that[PAUSE]second chance schools by definition they don't have programs to follow, you are free that is there really[PAUSE]you see the needs of your students and you go really where their needs are[PAUSE]that is[PAUSE]okay [PAUSE]sure. At the same time, the requirements they have[PAUSE]well, yes[PAUSE]I think that since there is no detailed curriculum involved, it becomes clear that you are freer to focus on what is really needed.

[33:22]Interviewer: So there is a connection of knowledge and real need!

[33:27]Interviewee: Yes, it makes sense, isn't it?

[33:28]Interviewer: Possibly do the characteristics of adult learners favor this?

[33:35]Interviewee: Let me tell you the most classic problem we have, for example, is that I am trying to do what we said before[PAUSE]I am trying to do math with everyday life, when I tell a child the simplest thing, I am trying to teach him the tax, the, half the lesson will be wasted on explaining to him what the

tax is. The adult has this knowledge on his own, so we are limited exclusively to how this thing will be calculated[PAUSE]well, yes[PAUSE]it is different.

[34:10]Interviewer: There is lesser knowledge. Well, universal design for learning is an educational framework that promotes inclusion and intercultural education as it aims to equal access for all in the educational process. Do you agree with the above statement?

[34:36]Interviewee: Can you[PAUSE] the question?

[34:41]Interviewer: Yes of course. Universal design for learning is an educational framework that promotes inclusion and intercultural education as it aims to equal access for all in the educational process. To make it easier for you if the question is unclear, is there a convergence of goals, the equal access of all to the educational process? Do you agree that through it inclusion and intercultural education are promoted?

[35:18]Interviewee: Yes, this is also the definition I think of universal design that includes everything.

[35:27]Interviewer: [PAUSE]

[35:29]Interviewee: Yes, I agree.

[35:30]Interviewer: Well, with the urgent need for school distance education due to COVID-19 how much do you think the application of universal design is possible and promotes intercultural and inclusive education respectively in digital learning environments? Not in live teaching but in digital learning environments?

[36:00]Interviewee: I, from the experience I have[PAUSE]can I say that it is a lost year? Not at all, [PAUSE]it doesn't help at all, [PAUSE] the twenty children I have in the department [PAUSE]not the department, sorry.

[36:20]Interviewer: In total;

[36:20]Interviewee: Overall, sorry yes[PAUSE]I think the two or three are the ones who can follow the lesson, in reality, that is, it doesn't help no.

[36:36] Interviewer: So do you consider that universal design cannot be applied in a digital environment.[PAUSE] I will ask you why?

[36:43]Interviewee: Maybe, I don't know if I'm also to blame for this part, but the children, well, first of all, they're different[PAUSE] first of all, because they really have learning difficulties, maybe really, they need more contact too[PAUSE] and suddenly, yes[PAUSE] through a screen that contact is lost[PAUSE] and[PAUSE] I don't know, I don't know, I see it in action, I tell you the children are not[PAUSE] they struggle

too

much.

[37:23]Interviewer: Do all your students have access to distance learning?

[37:27]Interviewee: No, no[PAUSE] it is[PAUSE] at least I know two kids who don't have any, they don't get in at all.

[37:33]Interviewer: From your experience, what you have seen so far, do you think that children can use digital technology for educational purpose? Surely the new generation knows a lot.

[37:50]Interviewee: No, no, probably they have been misunderstood, the children are simple users but unfortunately they have not developed, I don't know if it was their fault, the ability to be able to handle new technologies as a subject of education [PAUSE] at least that's what I've seen, that they can't.

[38:18]Interviewer: Teachers can? Do you think they have the knowledge?

[38:21]Interviewee: They try,[PAUSE] if we exclude a few who[PAUSE] okay[PAUSE] they are further back technologically,[PAUSE] those who have access to a computer have tried a lot, [PAUSE] that is, essentially all the schools rely on them.

[38:38]Interviewer: [PAUSE]

[38:39]Interviewee: Efforts made by them [PAUSE] with personal effort, that is, time, [PAUSE] with each other.

[38:44]Interviewer: As you said before your training [INTERRUPTION]

[38:46]Interviewee: The ministry left us completely hanging. [INTERRUPTION]

[38:49]Interviewer: It's happening now.

[38:49]Interviewee: Done. It took out two files, text files, let's read them, on them, from then on everyone tried to[PAUSE] how do we call it? In the head of [PAUSE] like this.

[39:03]Interviewer: And to emphasize that it was, it is mandatory distance education, school distance education. Right? It doesn't have an optional feature this year?

[39:16]Interviewee: No, it is obligatory.

[39:17]Interviewer: [PAUSE]

[39:18]Interviewee: both for students and teachers.

[39:20]Interviewer: Well. Thank you very much for your participation and cooperation.

[39:25]Interviewee: Be well.

[39:26]Interviewer: I assure you once again that your answers are confidential. They will be used exclusively for research purposes and at this point I would like you to give me the freedom that this

interview, which is of course anonymous, you accept to be used for research purposes.

[39:47]Interviewee: Yes, I accept.

[39:48]Interviewer: Well, thank you very much.

[39:50]Interviewee: Welcome.

END OF AUDIO

File Name: Interview 2

Audio Length: 08:57:00

Date: 29/08/2021

[00:00]Interviewer: First of all, thank you for your participation in the interview; you have already been informed about the interview process. Have you signed the relevant consent form to record the interview correctly?

[00:13]Interviewee: Right.

[00:14]Interviewer: Nice. So, we can start. I would like to ask first if you work in a gymnasium, lyceum or second chance school and with what specialty.

[00:25]Interviewee: In a gymnasium, in the integration department, as a mathematician of special education.

[00:30]Interviewer: Nice. Can the classes you teach be described as mixed?

[00:36]Interviewee: Yes.

[00:37]Interviewer: Usually how many students are included in each department?

[00:42]Interviewee: From two to four

[00:44]Interviewer: Do you face difficulties in your teaching and if so what kind of difficulties do you face?

[00:57]Interviewee: [PAUSE] First I would say there is no [PAUSE] there are not, there is no support material in the school and the infrastructure.

[01:07]Interviewer: Do you follow the curricula?

[01:13]Interviewee: Not always.

[01:15]**Interviewer:** How would you characterize them, if I asked you briefly to describe them in one or two words?

[01:21]**Interviewee:** For the integration department not at all flexible and difficult to implement

[01:27]**Interviewer:** How do you try to meet your students' needs? These are students who need [PAUSE] they have special education they have special educational needs, how do you try to meet these needs?

[01:47]**Interviewee:** I try to adapt the educational material according to each student's needs and level, reading the opinions and having taken into account the [PAUSE] the directive of [PAUSE]

[02:10]**Interviewer:** Of KESY?

[02:11]**Interviewee:** Yes of KESY.

[02:13]**Interviewer:** Nice. Do you take part in trainings?

[02:16]**Interviewee:** Yes, yes.

[02:18]**Interviewer:** When was the last time you participated in training?

[02:22]**Interviewee:** This summer.

[02:25]**Interviewer:** Nice. In the school where you work, would you describe the climate as cooperative? I mean, is there cooperation between teachers, teachers and principal, teachers and students, and guardians of children?

[02:44]**Interviewee:** Most of the time yes[PAUSE]not always. I can't say for all the teachers or for all the parents, but yes, in most cases there is cooperation.

[03:02]**Interviewer:** What teaching methods or support tools do you usually use?

[03:12]**Interviewee:** so, I use digital material, concept maps more, where I can collaborative method [PAUSE]

[03:26]**Interviewer:** Nice, I would like to ask if you know the terms, intercultural education, inclusive education and universal design for learning.

[03:40]**Interviewee:** Intercultural education yes, inclusive education yes, universal design no.

[03:47]**Interviewer:** How do you know these terms, from what source, from studies, training, and internet?

[03:56]**Interviewee:** Intercultural education and inclusive education yes from studies.

[04:02]**Interviewer:** Do you use any of them, i.e. intercultural and inclusive education that you know; do you use them in your teaching?

[04:11]**Interviewee:** The intercultural one has not been needed so far, the inclusive one yes.

[04:17]**Interviewer:** Nice. Now, some additional questions regarding your teaching. When you teach you said you usually use digital material, do you also use physical objects?

[04:34]Interviewee: [PAUSE]No, they are not available at the school where I work.

[04:46]Interviewer: Are you trying to connect the knowledge object with real life?

[04:50]Interviewee: Where this is feasible, yes.

[04:52]Interviewer: [PAUSE]I would like to ask if a student is indifferent to you, does not participate, how you reacted, what you do.

[05:04]Interviewee: I try to arouse his interest as much as possible.

[05:09]Interviewer: If one of your students does not keep up cognitively with the rest, how do you act?

[05:16]Interviewee: Here, I do it, I can make him spend more hours alone or [PAUSE]in the normal lesson I try to do simpler things so that everyone works together, and he gets a little push, let's put it this way.

[05:39]Interviewer: if one of your students causes inappropriate behavior, for example racist behavior, how would you react?

[05:51]Interviewee: This has not happened to me, to tell the truth. I guess I'll have a chat with him, we'll talk about exactly what's on his mind, and maybe I'll talk to his guardian too.

[06:04]Interviewer: **Nice.** You told me that although you know intercultural education and inclusive, you have not needed to use these terms, these practices in your teaching.

[06:25]Interviewee: I have used the inclusive one; the intercultural one has not been needed until now.

[06:30]Interviewer: Nice. Then, I would like to ask if you think that in the conditions that have developed in the past year due to COVID- 19, due to corona virus, the application of inclusive education was possible in the context of distance education. Things are different for life and different for distance. So do you think it was easy to implement, did you implement inclusive education at a distance as well?

[07:07]Interviewee: **No,** it was almost impossible I can say.

[07:10]Interviewer: So did you use this practice only during live training?

[07:19]Interviewee: At intervals yes, where the training was done for life.

[07:24]Interviewer: Do you always use it in your teaching? Is this a practice you use with your students?

[07:32]Interviewee: [PAUSE]Where I can, more so when the classes are big, when there are four or more children.

[07:46]Interviewer: Nice.

[07:50]Interviewee: Sorry, I mean in classes that there are three or four students.

[07:54]Interviewer: **nice,** I would like to ask you one last question. If in your teaching, during its planning, its duration and its completion, you make a reflection.

[08:08]Interviewee: Yes, let me tell you that I don't make a plan, I don't plan the teaching but during the

duration and after its completion I have a notebook to say so, in which I write the classes and each child separately and there I make notes every time[PAUSE]I make notes the observations.

*[08:35]***Interviewer:** Nice. Thank you very much for your participation and cooperation. I remind you once again that the answers are confidential. Will be used exclusively for research purposes and in order to ensure the personal data of the participants, the interview is anonymous. Good luck and be well.

*[08:56]***Interviewee:** Good luck to you too.

END

OF

AUDIO

File Name: Interview 3

Audio Length: 33:07:00

Date: 7/5/2021

*[00:08]***Interviewer:** Good afternoon.

*[00:11]***Interviewee:** Good afternoon.

*[00:12]***Interviewer:** First of all, thank you for your participation in the interview. You have already been informed about the interview process and you have signed the relevant consent form for recording the interview. Right;

*[00:28]***Interviewee:** Yes, of course.

*[00:30]***Interviewer:** Well, we can start. The interview takes place on Saturday, May 13 at 6:30 in the afternoon. First let me ask if you work in a gymnasium, lyceum or second chance school?

*[00:46]***Interviewee:** Well, at the present period of my life I teach in a second chance school the social literacy subject.

*[00:56]***Interviewer:** Well. Could the classes you teach be classified as mixed classes?

*[01:05]***Interviewee:** Yes. They could be characterized in a certain sense. To tell you the truth, in general, at SCSs as you will already know, we have people who have a gymnasium diploma. So, sorry, diploma of elementary school level. When foreigners, or other social groups, such as Roma, do not have the required certificates, they cannot. Indeed, at times yes, I could characterize the classes I have taught as mixed.

*[01:37]***Interviewer:** I understood.

[01:38]**Interviewee:** That is, we also have people from other social groups.

[01:42]**Interviewer:** How many students does your class usually include?

[01:48]**Interviewee:** Usually there are 15, 18 people, meaning men and women, regardless of age.

[01:55]**Interviewer:** Nice. Do you face any difficulties in your teaching? And if so, could you tell me what types and how you deal with them? Difficulties that exist.

[02:12]**Interviewee:** As I told you, I teach the course of social literacy, which is, especially in second-chance schools, I would characterize it as a bit complex, from the point of view that we are talking about different subjects which, with which, the trainees come face to face with their reality and more generally in their everyday life. The difficulties I face lie in the fact that the trainees, given that they are in a state of under-education, many times have specific assumptions, specific perceptions about issues of our daily life. So, that's where I find the problems. Now you asked me how I deal with them

[03:03]**Interviewer: Yes.**

[03:04]**Interviewee:** most of the times I try to use, introduce into my teaching for example the video, to show them some educational films, to introduce some literary genres, i.e. a nice essay or a nice poem. Many times I use accordingly art forms, i.e. visual arts, paintings, or any other kind of art, so that I can deal with the problem that I have faced, the dysfunctional, let's admit it, and the wrong perception that they have about some issues of our daily life.

[03:48]**Interviewer:** Nice. Are you following the curricula? And how would you characterize them?

[03:56]**Interviewee:** Well, as you know in SCSs there are no curricula [INTERRUPTION]

[04:02]**Interviewer:** you are freer

[04:04]**Interviewee:** Yes, it is free. There is essentially a guide that the instructor follows if he wants, that is, getting some ideas, so no, we don't follow a curriculum. The good thing, however, is that way second chance schools give us the opportunity to evaluate a little their educational material, the trainees we have, so to make a plan by ourselves of how we will move throughout the year so they can respond [PAUSE] we to respond to their demands.

[04:41]**Interviewer:** The guides that exist, that you mentioned, do you actually use them? Are they useful to you? Are they useful? [PAUSE] Do you use them as an auxiliary material?

[04:56]**Interviewee:** To tell you the truth, the first years that I started serving in the SCSs, not having that much experience, because I've been in the second chance school since 2007, I used them much more. However, most of the times they were completely outside the needs of my trainees at least and [PAUSE] I would characterize them a little fictitiously as not [PAUSE] they do not meet the expectations and needs of the trainees we have.

[05:30]Interviewer: Well. I understand. Let me ask now if you take part in seminars and if so [PAUSE] when was the last time you participated in a seminar?

[05:45]Interviewee: Yes, I take part in seminars. I have completed, if it is considered training, at the present moment, two master's degrees, one at the Greek Open University in adult education and one in special education at the University of Westminster. The last time I took part in training was [PAUSE] ten days ago and yesterday in fact I started a new cycle of training in counseling and coaching.

[06:13]Interviewer: Nice. I wish you good luck.

[06:16]Interviewee: Thank you very much.

[06:17]Interviewer: Let me ask now, regarding the climate that prevails in the school where you work, would you describe it as cooperative? That is, there is cooperation between teachers, teachers and the director, teachers and students, now obviously because it is about adults; I am not referring to guardians, but also the students among them?

[06:43]Interviewee: [PAUSE] Well, I have the pleasure, as I told you, since 2007 of being in a very good school, with which [PAUSE]and we corresponded with the director and with the fellow instructors, certainly from time to time some leave, some come, I live permanently in the area where the school is, so I am there every year. So yes, there is, a very nice atmosphere has been created, we have an excellent manager who promotes and develops teamwork and cooperation among us. And I won't hide from you that now, for two years, because of the pandemic, I have missed all this very beautiful atmosphere where [PAUSE] to meet at celebrations, to make e.g. presentations of projects [PAUSE] even the trainers group that many colleagues at least in other schools they consider him boring, we [PAUSE]in ours, we seek to meet to say [INTERRUPTION]

[07:47]Interviewer: Nice.

[07:47]Interviewee: Not only for the trainees but also for our news too. So yes, there is a very good climate. However, I see that there is, at least from the little experience I have this year and last year because of COVID, is that among the trainees, those who could and met each other, they have very good relations. And yes, there is a very good atmosphere.

[08:10]Interviewer: Nice. As I understand the pandemic affected the contacts more to a degree.

[08:19]Interviewee: Yes, yes. Unfortunately.

[08:21]Interviewer: Well, during the time that schools were closed due to the pandemic, did you continue your lessons through any electronic educational platform, synchronously or asynchronously?

*[08:38]***Interviewee:** Yes. [PAUSE] based on the decision made by the group, together with the director and the other teachers, we created a platform on Google through our school blog, where we upload assignments every week for the students who had the opportunity, some to do them electronically but we also had the possibility, every Friday, to be at the school, one or two colleagues so that there would be no synchronicity, overcrowding, sorry, in order to also give printed material to the trainees who did not have the possibility to enter via the internet, they did not have any android phone, any laptop device, tablet. So yes, we continued normally, essentially distance learning. To emphasize that on the platforms, on the Google forms, the results came to us as well, but they were also seen by the same trainees where they had made a mistake. And indeed what I liked was that for many trainees; let's say if they got a score like 15 out of 20, they would take a couple of days and try to get to 20. And accordingly the trainees who were in the printed form received the feedback from us who corrected their assignments.

*[10:10]***Interviewer:** Nice. From what I understand you have responded, you have at least tried to respond to the needs of all students, both those who have the means to participate in the educational platform and those who do not have this possibility. Nice.

*[10:26]***Interviewee:** Yes. Unfortunately when there are trainees with many speeds, we all have to somehow find the golden ratio so that everyone can be helped.

*[10:35]***Interviewer:** Very nice. Let me ask now regarding methods, teaching techniques and supporting tools, which ones do you usually use in your lesson? Which ones cover you more, have you seen that [PAUSE] they satisfy you in terms of the results?

*[10:56]***Interviewee:** I mainly use teamwork, the cooperative method, i.e. I will always divide the trainees into two or three people, i.e. let's make a small group and complete the worksheets together. that is, we will deliver something, but not with a sterile proposal, a frontal proposal, that is, as I told you before, I can use a video for them to watch something or we can read, let's say a poem or anything else, analyze them, tell them two or three little things and accordingly to give them the worksheet later. So in a group of three or at most four people, depending on how many there are, let's all do the work together, one to help the other and correspondingly I'll pass and guide them if they have any problem. I mainly use this collaborative method.

*[11:53]***Interviewer:** nice, and from what I understand you also use some supporting tools as you mentioned, video [PAUSE] nice, worksheets. Very nice. To ask how you try to respond to the needs of the trainees, which you already mentioned and said are very different. They are students with different needs. How do you try to meet these needs?

[12:25]**Interviewee:** usually, I always tell you when we had it live lessons, now it is certainly a problem this year and last year, but after all the previous years I have the experience of the class always after the first meeting, since we will get to know each other and there will be an atmosphere of familiarity with the trainees.

I usually ask them what topics they are interested in[PAUSE] that is[PAUSE] let's say they want us to talk about violence, they want us to talk about prejudice, they want us to talk let's say about racism. So I want they[PAUSE] to have a discussion, that is, we dedicate a lesson. to be able to understand what they are interested in so that I can also make my plan and accordingly bring them material, so that we can touch on such topics, mainly that is, through the discussion I try to investigate their needs and I understand what they want so that I can also respond successfully.

[13:21]**Interviewer:** Very nice. Let me ask if you know the terms intercultural education, inclusive education and universal design for learning.

[13:35]**Interviewee:** Well. [PAUSE] I actually know two of the three quite well, intercultural education and inclusive education. Unfortunately, I have not been taught the universal design of learning anywhere. The only thing I ever read was about what it was about. Unfortunately I have not met him anywhere in any training. And this would probably be the next training I would like to do.

[14:05]**Interviewer:** Do you know the other two terms because of studies, training?

[14:11]**Interviewee:** yes, both from training and from my own personal[PAUSE] [INTERRUPTION]

[14:15]**Interviewer:** Quest.

[14:15]**Interviewee:** Willing, yes, quest, will to do [INAUDIBLE]

[14:20]**Interviewer:** **Very nice.** Let me ask this[PAUSE] from what I understand you connect, you try to connect your knowledge object with real life, with the life of the trainees, do I understand correctly?

[14:34]**Interviewee:** yes, because the subject of the lesson is also like this, given that it is social literacy, i.e. I never dwell on purely sociological issues, i.e. at the present stage I am a person who, as we said before, is in a state of under-education, I think it is inappropriate to tell them sociological theories or let's say to refer to the founders of sociology, for example Marx or Deken. So I try for the lesson to be social literacy, yes it has sociological elements but it refers more to things that concern our society, things that concern today and essentially concern the person himself and obviously his family or the people in his environment

[15:19]**Interviewer:** Very nice. Is there variety in terms of the activities that you put in place to check the acquired knowledge of the trainees, i.e. what did they gain, what did they understand from what you teach? Is there variety in the activities? In the worksheets?

*[15:41]***Interviewee:** Well, let me tell you in general that in the previous years that we did closely, the trainees had discovered a very nice application to make crosswords but many learners, who, as strange as it sounds, had never seen or solved a crossword puzzle. Well, I introduced them to doing, to liking solving crosswords. In general, apart from the quizzes which are the most common, the worksheets are of the multiple choice type, right wrong, I really like to do crosswords for them, to do electronic quizzes for them. so we all do it together, kind of like a TV game, i.e. we split into groups and then we try and in the middle of the time, i.e. who will answer the fastest and who will of course have the most questions. so it's something that I saw that they like very much, I consider it quite creative and they respond very nicely, they also try to compete with one group against the other whenever the noble emulation comes out among them.

*[16:50]***Interviewer:** I understood.

*[16:51]***Interviewee:** and definitely teamwork and cooperation.

*[16:54]***Interviewer:** Well, I also understood from what you told me that there is frequent feedback from the students.

*[17:02]***Interviewee:** Yes.

*[17:03]***Interviewer:** Nice.

*[17:04]***Interviewee:** the truth is that I want to do this; I just don't like to do the lesson, to deliver something, without knowing if it was really understood, and accordingly then how it will be applied in practice, in our everyday life? That is, let's say, for example, a lady is lucky enough to have a problem of domestic violence. Yes, let him mention it in the lesson and there, without me playing the psychologist or the specialist psychotherapist, we all tried together as a team to find solutions. Yes, we talked about violence, about the forms of violence and accordingly how it can be freed, until then. Therefore, even this is considered feedback from me, to be able to save, in quotes, a human being.

*[17:50]***Interviewer:** Nice. Do you collaborate with other specialties in order to implement your teaching? Did you aim for it?

*[17:59]***Interviewee:** Yes, usually in the action plans we collaborate quite a lot with the philology teacher, many times with the teacher, the English colleague, and of course, as I told you, the great love is art, so I definitely collaborate with the colleague who does the aesthetic education.

*[18:18]***Interviewer:** Very nice. Regarding the climate of cooperation, which we have already mentioned and you told me that it happily exists in your school and among the students, I will take it a little further and ask if it exists or if you are trying to create a climate of respect and harmony among the students,

through some actions, through your lesson. Are you seeking, is the creation of a climate of respect, cooperation, harmony among your pursuits?

[18:55]**Interviewee:** Sure, because you think that my literacy lesson is like this, that among the end of everything we deal with, yes, it is respect, it is solidarity, it is equality, dignity and, accordingly, respect towards the other. So yes, among many activities or even in our daily life, on a simple topic, which we can talk about, let's say [PAUSE] about how we will stand in a public service [PAUSE] Yes, even from this the instructor can take respect for fellow human beings and correspondingly to develop respect among the trainees.

[19:43]**Interviewer:** Very nice. Let me ask now if one of your students is indifferent to your lesson, during the teaching time he does not participate, are you trying to do something to change this attitude?

[19:59]**Interviewee:** yes, the truth is that from time to time during all these years that I have been teaching, there are students of this type, there are also students who [PAUSE] I would generally say that they are cautious at the beginning of the school year, and from discussions with their colleagues they do so in all lessons. He is the so-called student who is detached, who first wants to see what is being done so that he can participate [PAUSE] I always leave time for the trainees [PAUSE] to decide for them when they want to participate. Sure, I will hand out worksheets to everyone, I will give them to everyone, probably the one who generally does not participate, I will include him in a group but I always see that through participation with the team, the others will also motivate him. so without pressure, without there being the intense [PAUSE] the intense end of everything, to fit in somewhere, the same by himself slowly seeing the nature of the lesson, given that we are not just talking sterilely about some things, they are things which in fact will interest him. Well, even the most difficult student has taken the floor and has told at some point a personal experience, he has referred to something that always worries him based on what he has heard from what the course deals with.

[21:29]**Interviewer:** Nice. You told me previously that the students' needs are different, their level, obviously, will not be at the same level cognitively [PAUSE] So you, when you find that some students are not cognitively keeping up with the rest or even if you have this in mind years that you are teaching that possibly there will be students who will not keep up, here how do you act in this part? [PAUSE] Are you doing anything special? Something specific? Do you consider this information and act accordingly?

[22:10]**Interviewee:** Well, yes. Surely, every time, every year there will be some students who are the so-called very weak, who have come from other kinds of situations, that is to say, we cannot always have the same students, for the students to be the same. That is, we have among the classes people who simply did not finish school [PAUSE] because they did not want to while we have people, respectively, who may

have some kind of learning difficulties and this did not progress, did not show up in their school years. well, that's usually what I do when I understand that, for example, a student doesn't know how to write well, I will include him in a group where it is understood that I will have seen that they have very good relations with his other classmates and I will try, without offending him, to integrate him into the group but also to make the others a wall of protection against him, so that enclose him within this wall so that they can help him. That is, to say, I don't know how to write or read well, to say it doesn't matter, I have my classmate next to me, so he can help me, let's say.

[23:27]**Interviewer:** Nice.

[23:28]**Interviewee:** In this way, that is, I will join him in a group in which I know that he will do well and that they will help him.

[23:33]**Interviewer:** Very nice. If you find that a student provokes you with inappropriate behavior [PAUSE] for example [PAUSE] a racist attitude towards another student or students, how would you react?

[23:51]**Interviewee:** There, because this thing has happened, every time we refer to the so-called learning contract and while we have all signed it, usually the trainees themselves are the first to understand this and many times by themselves, no I wouldn't want to say the word target, but on their own they essentially bring back to class the classmate who created this problematic behavior. No one isolates him clearly, but they just always refer to the student contract, in which we have said that, yes, there is respect, there is solidarity, we do not insult anyone because of their religious, racial, race, skin color or anything. So yes, the trainees themselves immediately understand this and refer it to our learning contract.

[24:47]**Interviewer:** Nice.

[24:47]**Interviewee:** This is always hanging in the classroom.

[24:50]**Interviewer:** is the student contract something you apply every year at the beginning of the year?

[24:58]**Interviewee:** Yes, yes. Always at the beginning of the year and in fact I have [PAUSE] empirically joined and from my training, I have made my own learning contract in quotation marks, such as "what do I like to do in class? What don't I like about it? And how will this be achieved?" so, when a classmate says, when a trainee refers to I don't want my classmate's phone to ring all the time [PAUSE] well, how is that going to be achieved? We all put our phones off. And immediately there is equality for all of us. Or equivalently, I don't want anyone to interrupt me while I'm talking. Nice, how is this going to work? It will be achieved by waiting for everyone to speak so that we can speak and say our opinion.

[25:50]**Interviewer:** **Very nice.** Do you reflect [PAUSE] during the planning and duration of your teaching?

[26:02]Interviewee: [PAUSE] let me tell you now, in general, it's a big conversation, yes [PAUSE] it's a reflection. If it is achieved [PAUSE] I would venture to say that it is achieved very few times and in a very small percentage of the trainees. If I understood what you asked me.

[26:22]Interviewer: **Well**, regarding the terms we mentioned, intercultural education, inclusive education, and universal design for learning, do you consciously use any of these practices in your teaching?

[26:42]Interviewee: mainly intercultural education that is we will do and participate in programs of intercultural interest and we will talk essentially accordingly about such topics. We will see films[PAUSE] and many times we undertake, that is to say, in the previous years at least we undertook various projects from action aid. So yes, we actually consciously have some things of these teaching methods.

[27:18]Interviewer: Very nice. To ask if apart from second chance schools you have worked in the past in gymnasium schools or lyceum schools.

[27:27]Interviewee: Yes. Both of them.

[27:30]Interviewer: well, I ask this question because in gymnasium schools and lyceum schools there are curricula, which I understand you are familiar with, and I would like, if it is possible, to make a comparison of... teaching in gymnasium schools and lyceum schools in relation to the second chance schools that as you said, you don't follow any curriculum, you are more free, if in the second chance schools there is greater effectiveness, I would say in terms of teaching because there is no curriculum or the opposite, it is an obstacle that there is no curriculum for teaching.

[28:17]Interviewee: Well. At the present stage yes, in this regard, I think, given that there is no detailed study program, it is something that liberates us, that is, we operate very liberatingly and this is very effective and functional for the students themselves. now, at the present stage because I also teach in the third year of a lyceum and as you know the Pan-Hellenic exams have a specific grade, a specific rhythm, that the child simply has to memorize a lesson... the lesson probably or most of the times and the entire book[PAUSE]yes, I think that it is a deterrent factor which is not effective at all[PAUSE] the curricula[PAUSE] that is a subject like sociology, let me tell you, an 18-year-old can't just memorize it[PAUSE] he hasn't understood anything, also in the third year of the gymnasium, which is the subject "social and political behavior", we are a little more free because there is no [PAUSE] the limit of the pan-Hellenic examinations. We certainly follow the curriculum faithfully, but we have a little more [PAUSE] the ability to analyze some things to the children from theories outside of the curriculum. So yes I will be able to show a social content film let's say about racism.

[29:59]Interviewer: Yes.

*[30:00]***Interviewee:** in gymnasium schools yes, but in lyceum schools no. there are specific hours, it is a lesson of direction, and it is a curriculum and which must come out on a specific date. Well, no, our hands are literally tied.

*[30:14]***Interviewer:** So would you say that in gymnasium schools and lyceum schools it is difficult to implement practices such as intercultural education, inclusive education and from what do you know the universal design for learning precisely because of the binding curricula?

*[30:33]***Interviewee:** Yes, I would say that it is extremely difficult; the teacher will have to make a very big effort[PAUSE] I will honestly say that in high school you cannot do such a thing, in high school yes you have a form and a dose of freedom a little more than high school, not in high school. The hours are running, the direction is running, the material must come out, specific material in order to prepare the children for the pan-Hellenic exams. Unfortunately, neither intercultural education, nor inclusive education, nor, as far as I can understand, universal design for learning can be applied, at least not in lyceum. In gymnasium [PAUSE] yes, with caution and in the jurisdiction of each teacher, but maybe things are a little better.

*[31:25]***Interviewer:** Well, one last question I want to ask you, since due to the situation, with the pandemic I mean, since last school year we have used digital learning environments in order to continue the education of children and adults naturally, I would like to ask if you think that in digital learning environments it is possible to apply intercultural education, inclusive education and, as far as you know, universal design for learning.

*[32:01]***Interviewee:** [PAUSE] I think so. The application is possible but[PAUSE] I can't tell you for sure how much it will be used. Because we are always talking about people who are under-educated. Well, yes, it can be applied, but I don't think it can be used to the fullest.

*[32:29]***Interviewer:** Well, to thank you warmly for your participation and cooperation

*[32:36]***Interviewee:** me too, good luck.

*[32:37]***Interviewer:** Thank you very much. I assure you once again that the answers are confidential, they will be used exclusively for research purposes and in order to ensure the personal data of the participants, the interview is anonymous.

*[32:53]***Interviewee:** Nice, thank you very much.

*[32:54]***Interviewer:** I wish you good luck.

*[32:57]***Interviewee:** Good luck to you in whatever you do.

END OF AUDIO

File Name: Interview 4

Audio Length: 33:36:00

Date: 13/5/2021

[00:02]**Interviewer:** Good afternoon.

[00:05]**Interviewee:** Good afternoon.

[00:06]**Interviewer:** First of all, thank you for your participation in the interview. You have already been informed about the interview process and you have signed the relevant document of consent for recording, correct?

[00:20]**Interviewee:** [PAUSE]

[00:25]**Interviewer:** Do you hear me; correctly?

[00:34]**Interviewee:** [PAUSE] I think I had a problem with the sound, so I heard with a big delay what you were saying. I have agreed with all the terms of the procedure [PAUSE]I am ready to start.

[00:46]**Interviewer:** Very nice [INTERRUPTION]

[00:47]**Interviewee:** It is also a unique experience for me[PAUSE]from which I will gain knowledge.

[00:54]**Interviewer:** Nice. [INTERRUPTION]

[00:55]**Interviewee:** So with great joy I will participate.

[00:56]**Interviewer:** I'm glad for that and thank you. The interview takes place on Saturday, May 13, 11 o'clock in the evening. So let's start with this: do you work in a gymnasium, lyceum or second chance school?

[01:14]**Interviewee:** [PAUSE] In the current school year I work in a high school and a second chance school.

[01:22]**Interviewer:** Well, could the classes you teach be classified as mixed?

[01:30]**Interviewee:** If we consider that by the term mixed [PAUSE] we mean classes that [PAUSE]include children of Greek origin but also of other ethnicities, yes, clearly. Mainly in gymnasium classes, yes yes, this more intense.

[01:50]**Interviewer:** Very nice. In the classes you teach, apart from foreign students, do you also have children with special needs, any disabilities?

[02:02]**Interviewee:** [PAUSE] disabled? Not in the narrow sense of the term, but with learning problems, I have several children, who face learning problems [PAUSE] which are part of the broader framework of the autism spectrum.

[02:23]**Interviewer:** Nice, how many students do the classes you target usually include?

*[02:32]***Interviewee:** From 20 to 27, 28 people.

*[02:39]***Interviewer:** Well, to ask, are there any difficulties, do you face difficulties in your teaching? And if so could you specify the type of these difficulties?

*[02:53]***Interviewee:** yes, one can face various difficulties in a class of many speeds, as I said before, I have in all classes, I have children who come from other countries mainly from India, Afghanistan, from Pakistan, from these countries mainly, so a real difficulty is that I cannot communicate, this lesson cannot be understood to the maximum extent by the children because they do not know the language[PAUSE] one more[PAUSE] Another difficulty lies in the fact that there are different levels among students. There are children who study in the third year of gymnasium, but in essence their cognitive level is in the first year of gymnasium. [PAUSE] There is no willingness, the same willingness from all the children [PAUSE] the difficulties are varied. I don't know if you want me to focus on something specific?

*[04:03]***Interviewer:** I understand from your answers what you mean. However, I would like to ask if [PAUSE] how you deal with these difficulties in order to proceed with your teaching.

*[04:16]***Interviewee:** So, look, our work is demanding and many times the difficulties are not dealt with in an absolutely efficient way, why? [PAUSE] what am I trying to implement rather as practices? [PAUSE] I stick to personalized teaching, as often as this is possible in the context of the course, it is not always possible, but as many times as this is possible, I apply it, i.e. the children who need attention [PAUSE] or to focus a little more on questions that [PAUSE] for the other children are understandable, or to give differentiated exercises [PAUSE] of a lower level so that they can respond [PAUSE] usually the methods I apply they are. Also, one way that I think has helped a lot is the encouragement and prompting of participation.

*[05:20]***Interviewer:** Nice [INTERRUPTION]

*[05:20]***Interviewee:** In these children, because there is a severe lack of self-confidence and self-esteem.

*[05:25]***Interviewer:** Very nice, I understood. Do you follow the curricula and how would you characterize them?

*[05:34]***Interviewee:** I would describe them as painless [PAUSE] they have a rather typical character. Many times they are also impractical. The goals are unrealistic in many cases, let's say as an example, I have the history lesson

*[05:50]***Interviewer:** Yes.

*[05:51]***Interviewee:** [PAUSE] based on the curriculum, you will have to include a lot of things in two hours and this is not possible because, I say again, you do not have people in front of you who are neither at the

same level, nor are all the days the same, neither can the lesson have breaks, pauses, not to focus on any point that is needed, so this flexibility is not included in the curricula.

That's why I said in the first place that it's painless.

[06:28]Interviewer: Yes.

[06:28]Interviewee: I follow them [PAUSE] no [PAUSE] to the extent that I probably don't deviate from the teaching material [INTERRUPTION]

[06:43]Interviewer: I understood.

[06:43]Interviewee: But not by the book as we say, i.e. not exactly as given by the ministry.

[06:49]Interviewer: I understood.

[06:49]Interviewee: Because we will have to be a little more flexible as teachers [PAUSE] we have to listen to what each class, each department asks for and to adjust the program accordingly.

[07:02]Interviewer: Nice. Do you take part in trainings? And if so, when was the last time you participated in any training?

[07:12]Interviewee: some time ... I have already taken part in 400 hours of training [INAUDIBLE] that regards update of knowledge in basic principles of adult education [PAUSE] in second chance schools and [PAUSE]

Another training regarding intercultural training but it is [PAUSE] it's the first weeks[PAUSE] I don't have a familiarity further to be able to understand the benefits, let's say of the training, but it arose as a necessity for that and [PAUSE] I considered that it would be useful to educate myself.

[08:00]Interviewer: Very nice. Well, regarding the school where you teach, or better the schools because you said that you are also in a second chance school, I would like you to describe the climate for me a bit, that is, is it cooperative? Is there cooperation between teachers, teachers and the director, teachers and students, guardians in the case of minors in the gymnasium, or students among them? I mean, is it a co-op school? Is there any collaboration? Is it intense?

[08:37]Interviewee: In a more general context we would say that it exists. [PAUSE] In all the schools I have worked in so far, but also in the schools where I am working this year, there is a team spirit. I definitely have a better picture for the morning school, that is, for the gymnasium.

[08:57]Interviewer: Yes.

[08:57]Interviewee: And that's because [PAUSE] due to the pandemic I wasn't allowed [PAUSE] I wasn't allowed to live teaching at the second chance school, so I can't understand what the relationships between trainees and trainees will be [PAUSE] I'm guessing based on the feedback but not I can say that

for

sure.

*[09:18]***Interviewer:** I understood.

*[09:19]***Interviewee:** In general, however, from my previous experience in SCSs I will say that cooperation is perhaps one of the dominant elements that exist. without the cooperation at all levels, which you mentioned earlier, among the trainees, between the trainers and the trainees, between the trainers among themselves, between the trainers and the management, i.e. **[PAUSE]** in all sections, after all, involved in the educational process, there is cooperation.

*[09:52]***Interviewer:** Very nice.

*[09:53]***Interviewee:** That is.

*[09:54]***Interviewer:** Well, may I ask which methods, teaching techniques or which supporting tools do you usually use in your lessons? **[PAUSE]** for example, do you use a collaborative method? Did you prefer lecture? Do you use any digital material? Worksheets?

*[10:19]***Interviewee:** Nice, well**[PAUSE]** to a much greater extent, I use cooperative teaching in SCSs, and this is because there is flexibility on the part of the ministry and on the part of the curriculum**[PAUSE]** as to the way we will manage the course. Therefore, group work is literally applied in SCSs **[PAUSE]** along with video projection, along with power point, along with visits to**[PAUSE]** places, museums or**[PAUSE]** places of relative interest, after all, of educational interest.

*[11:09]***Interviewer:** Nice.

*[11:09]***Interviewee:** Of educational interest related to the course. Now, from here and there, in the morning school, in the gymnasium that is **[PAUSE]** to the extent that I am allowed, I use group **[PAUSE]** teaching**[PAUSE]** from here and there**[PAUSE]** I use too much **[PAUSE]** audio-visual material. **[PAUSE]** Because it is**[PAUSE]** it really arouses the interest of children of all ages, the lesson becomes easier to understand, and it is also suitable for some courses a little bit more**[PAUSE]** in my future plans**[PAUSE]** sorry.

*[11:57]***Interviewer:** Yes.

*[11:57]***Interviewee:** Ok... can I go on?

*[12:00]***Interviewer:** I hear you, yes.

*[12:02]***Interviewee:** In my future plans, if I am in a school that has an interactive whiteboard, I would like to use it**[PAUSE]** I have tried and it has**[PAUSE]** succeeded the role play, which I have used as a technique**[PAUSE]** because**[PAUSE]** it helped students a lot, let's say the dramatization of some tragedies we are working on**[PAUSE]** so the role play helped them and they got into the roles of the respective heroes**[PAUSE]** that's all.

[12:38]Interviewer: **Very nice.** Nice, let me ask how you try to respond to the needs of your students, which as I understand, you mentioned that they are different, for example you have foreign students in your class, children with learning, special learning difficulties, on the spectrum, how do you try to respond to children's' different needs?

[13:06]Interviewee: Well, I try to be a little flexible, and to have[PAUSE] my reflexes open. What does this mean; I communicate at regular intervals with the girls who work with children who are on the spectrum, with those who support parallel education so I get a feedback on how I should modify my lesson each time.

[13:39]Interviewer: Nice.

[13:40]Interviewee: These as far as the children who belong to the spectrum are concerned [INTERRUPTION]

[13:44]Interviewer: To ask here, sorry to interrupt you[PAUSE] Do you have good cooperation with the teachers who are parallel support for these children?

[13:56]Interviewee: I have excellent cooperation.

[13:57]Interviewer: **Nice.**

[13:59]Interviewee: I have an excellent cooperation because [PAUSE] we also have a common goal [PAUSE] and because [PAUSE] after all, we approach the course in a similar way, which [INAUDIBLE] we may not have agreed on it, but we have the same goals and the same approach.

[14:17]Interviewer: Very nice.

[14:20]Interviewee: As for the children from other countries[PAUSE] I try to be more detailed in the lesson[PAUSE] to ask questions in order to understand if they have sufficiently understood the terms, and if they actually follow and understand what we say. I mean, I focus more and I repeat some things many times in order to be understood[PAUSE] I focus a little on their eye contact or how much[PAUSE] they are watching and I realize that they understand. So what? These basically.

[14:58]Interviewer: **Nice.**

[14:59]Interviewee: It's difficult to[PAUSE] if necessary[PAUSE] if some children know English and they don't understand something in Greek[PAUSE] I answer them in English[PAUSE] now it's okay from there and I don't have[PAUSE]

[15:13]Interviewer: Yes. Very nice.

[15:14]Interviewee: I have no other weapons to use saying on quotation marks.

[15:16]Interviewer: Nice, you covered me, to ask if you know the terms intercultural education, inclusive education and universal design for learning.

[15:30]Interviewee: **Yes.** I know the first term you mentioned[PAUSE] a need arose, I am also attending a seminar on it to gain more knowledge. I don't know the other two terms to tell the truth.

[15:44]Interviewer: Nice.

[15:45]Interviewee: I have met them in some educational material but until then, I don't know anything beyond that.

[15:50]Interviewer: Understood. [PAUSE] when you teach do you use digital material?

[15:56]Interviewee: Yes [INTERRUPTION]

[15:56]Interviewer: I think you mentioned it.

[15:57]Interviewee: Mainly. In almost all subjects.

[16:02]Interviewer: **Nice.** Are you trying to connect the subject matter, your own subject matter, to the real life of the students?

[16:12]Interviewee: [PAUSE] **yes because** I think that ...always in my lesson...in my lessons whenever I can make such connections, such parallels...I do it and...I encourage it because...it helps the children to understand what we deal with...this.

[16:34]Interviewer: Nice.

[16:35]Interviewee: So yes, I'm looking for it.

[16:36]Interviewer: In terms of the activities that you set, to express the acquired knowledge, to see, to assess the students, what they have understood, is there a variety of activities? Or do you choose specific activities, common to all students but...without variety?

[17:01]Interviewee: No, I prefer to understand what they can respond to better... or what might make it difficult for them and what I can improve in the way I set something up [INAUDIBLE]

[17:17]Interviewer: Nice. Is there frequent student feedback?

[17:22]Interviewee: ... online no...or in distance learning, in the live course yes of course, very frequent, every day.

[17:33]Interviewer: **Very nice.** Do you collaborate with other specialties?

[17:37]Interviewee: In SCSs more because there is the possibility of interdisciplinary work... in the gymnasium not so much. But... I'm open to that too [INAUDIBLE]

[17:50]Interviewer: **Nice.** Are you trying to create a climate of respect, unity, cooperation among your students? With the appropriate actions ...

[18:01]Interviewee: This is obeyed. It is, I think... from the basic principles of conducting our work... if this is not achieved in the first place... I think you can't even, you think you are efficient in your work... all

these are anyway included in the learning contract that co-sign in quotation marks with the students in the opening meetings.

[18:32]**Interviewer: Very nice.** Is it something that... the students contract that you always apply at the beginning of the school year?

[18:41]**Interviewee:** Always. Which I say again, we co-sign, we agree, I don't define it... and which is definitely modified or if any of the basic principles that we have all agreed that we will obey for the duration of the school year are forgotten... we come back and discuss it again.

[19:03]**Interviewer:** Nice.

[19:04]**Interviewee:** In general, I focus too much on communicating with the students and I think that so far this... has helped me a lot.

[19:11]**Interviewer: Very nice.** Let me ask, if a student is not interested in your lesson, does not participate... how do you act?

[19:24]**Interviewee:** ... I have worked in different ways; it depends on the student and the stimuli I receive. I first ask colleagues if I am new to a school if they are aware of what is happening, and they know it better than in previous years. So I get a feedback from colleagues. I intend to talk to him at some point, without, however, becoming a target and the others realizing it, that is, personally...trying to have a dialogue with him in order to elicit information about what is happening...I ask questions and among the questions I can I understand where the problem lies.

[20:12]**Interviewer: Nice.** If one of your students is not keeping up cognitively with the rest, how do you act?... I imagine there will be such cases, quite a few.

[20:27]**Interviewee: Yes, there are many cases.** How I act...usually...when there is the possibility...I give simpler exercises to the specific students, I am not so demanding in the correction...for their results, I encourage them a lot to continue the effort and...I try to...summarize the main points and highlight them at the end of each lesson so that they are left with what they can understand.

[21:11]**Interviewer:** Well,

[21:29]**Interviewee: Yes,** to a very large extent this is what I do. And indeed there are courses that help me in this...let's say, history has also worked helpfully, and the course of literature and essays. there are students who are very good at manual work so I connect a theme about love with a...creative writing work, which may include pictures, may include a construction, that [INTERRUPTION]

[22:04]**Interviewer:** Nice.

[22:05]**Interviewee:** That will use materials that are [INAUDIBLE] whenever I try to involve them in every way in the educational process, I detect their abilities, their inclinations or their needs, their interests, and from there I see what scope the taught lesson leaves and how I can utilize it to benefit of the student.

[22:32]**Interviewer:** Very nice. If one of your students causes inappropriate behavior, for example racist behavior towards a classmate, how would you react, do you intervene?

[22:47]**Interviewee:** I intervene to an absolute degree. ... I may ... I am lucky enough to dedicate an entire teaching hour... to point out some basic criteria for how we should generally operate not only in the classroom, but also in general, and outside the classroom. I don't really have extreme examples, no extreme examples have happened to me in my educational process. It has not happened such a thing. I think that ... the biggest example is our behavior. So through mine...through my own example setting in how we handle situations...I seek and achieve the compliance of children, who we would say have deviant behaviors or even racist attitudes.

[23:40]**Interviewer:** Understood. Well, May I ask if you reflect, both during the planning and during the duration of your teaching.

[23:53]**Interviewee:** Yes, it is also necessary, and as the classes grow, reflection is necessary, because in this way the children can...think positively...make the necessary connections, and with what they will follow in the future and with their interests, reflection is necessary in every case, at every stage of the educational process.

[24:24]**Interviewer:** So you mean you put your students through the process of reflection?

[24:30]**Interviewee:** Mainly through the dialogue this emerges, somehow spontaneously, I don't think about it, it emerges.

[24:38]**Interviewer: Understood.**

[24:38]**Interviewee:** it can be done during the course three times, five times, it may not be done once, it may be done the next time, whenever it occurs.

[24:49]**Interviewer:** Do you personally use this technique? Do you reflect when you plan the teaching, if I am doing it right, if it is going well, or during it, what did not go well, why did it not go well? What will I do next time? Is it a process you go through every time?

[25:14]**Interviewee:** It is a process that I enter and ...only in this way have I managed to improve the subjects...of planning an educational lesson. so the reflection is necessary because it works as a feedback for me.

[25:35]**Interviewer:** Nice.

[25:36]**Interviewee:** And I will apply it to the highest degree.

[25:40]**Interviewer:** Nice. I mentioned a little while ago about intercultural education, inclusive education and universal design for learning. You know intercultural education, you don't apply it, am I right?

[25:58]**Interviewee:** Yes. I don't know if I'm applying it to clarify, I don't know what it's about for the most part. I don't know what I apply in any case, which is included in intercultural education. I don't know the rest of the terms.

[26:15]**Interviewer:** Well, you said that you work in a gymnasium and a second chance school at the same time. I would like to ask if you see/think that there is any difference in the application of some technical teachers, such as group teaching, how freely you work on your subjects or relate the knowledge object to the life of the students? Do you think there is any difference and what could be the reason for this? In adult characteristics? In curricula?

[27:00]**Interviewee:** Nice. Well, yes, there is a big difference in almost all the parts related to ... the educational process. Where does this differentiation lie? Again, on many points. It lies first of all in the motivations of the adult learners in SCSs and the motivations of the children, which are different. The children come many times and their coming to school is mandatory. Adults voluntarily come to a phase of their lives where they want to develop professionally, they want to develop personally and develop their personality. Their characteristics are completely different, in the sense that... and this plays an important role that the adult learners come with more consolidated and stereotyped concepts while the children are still in a formation process. ...the way it is now...the flexibility that we from the ministry have as trainers and as trainers in the schools in the mornings...is greater, no it is greater, it probably differs. There is more flexibility in second chance schools in how we manage our course. Consequently, all these determine the learning outcome and the learning process, let's say. All these are factors that are also taken into account ... by a trainer and he accordingly adjusts the way he will apply.

[29:02]**Interviewer:** I understand, that is to say, do you think that the curricula that exist in high schools and high schools in relation to those of second-chance schools... probably the differences you mentioned are also due to them?

[29:18]**Interviewee:** They are definitely due to them, because the programs that concern lyceum and gymnasium, you know and as I said before, leave no room for flexibility. While in second chance schools you have the possibility, if you have been trained and educated and you have the will to apply educational techniques, you have the possibility to do so.

[29:46]**Interviewer:** Nice.

[29:46]**Interviewee:** Because usually adult are thirsty for something like this, they generally like to have their interest piqued in multiple ways. On the other hand, even if you have the technical know-how as a

teacher in gymnasium schools and lyceum schools, you do not have the ability to implement them from the curricula in a great degree.

[30:12]**Interviewer:** I understand. Good, one last question I want to ask you since we are referring to these practices. On the occasion of the urgent need for school distance education due to the pandemic, to what extent do you think that the application of such techniques, practices, can be applied effectively, is possible in digital learning environments? ...and not for live teachings. For example, how can the collaborative method be applied in a digital learning environment?

[31:00]**Interviewee:** because we live in the age of technology, it is applicable, from then on... [SOUND PROBLEM]

[31:20]**Interviewer:** Nice.

[31:22]**Interviewee:** So I was saying that it is applicable, but I am not sure if it is the same efficient. First of all let's say that... the pandemic found our teachers a little digitally unprepared, so this means that there are tools to use in a digital environment but we don't have the know-how to utilize them. So we are far from utilizing all the possibilities that can be given to an educator...to be able to improve his education. One is that, secondly I think that a digital environment has limited possibilities in terms of attracting interest. At some point, distance learning becomes tiring despite the so many different techniques and tools you can use. This is my position on it.

[32:33]**Interviewer:** Understood. Very nice, those were my questions. Thank you very much for your participation once again and for your cooperation. I assure you that the answers are confidential, they will be used exclusively for research purposes and in order to ensure personal data, the interview is anonymous. Thank you again and I wish you the best.

[33:01]**Interviewee:** I thank you too. And let me tell you that it was a very important experience for me as well because I was given the opportunity to learn about terms that are included in the educational process... Good luck, good continuation in your research.

[33:22]**Interviewer:** Thank you very much.

[33:24]**Interviewee:** And thank you very much for the participation.

[33:28]**Interviewer:**Nice. Thank you very much. Good bye.

[33:31]**Interviewee:** Be well, good evening.

END

OF

AUDIO

Written interviews

INTERVIEW 5

1. Are the classes you teach classified as mixed? Identify.

Yes, they are mixed due to the composition of the student population. Students of foreign origin as well as students with special needs, e.g. learning difficulties, also study.

2. How many students do the classes you teach usually include?

In the gymnasium and in the inclusion classes, a maximum of 6 students per class and in the SCSs 15-20.

3. Do you face difficulties in your teaching? If so, what kind? How do you deal with them?

The difficulties I am facing are related to the insufficient equipment of the rooms. Usually at the gymnasium I teach in, the classrooms available for inclusion classes are small and have only a conventional marker board. In SCSs the classrooms are bigger but here too there is no PC equipment available in every room or a projector, tools that I personally need and use when possible in my teaching.

4. Do you follow the curricula? How would you characterize them?

In gymnasium yes, necessarily. In SCSs there is no curriculum, there is flexibility. I would describe the existing curriculum as closed and rigid.

5. Do you take part in trainings? If so, when was the last time you participated in training?

Yes, I receive. Recently, two months ago, I completed my training to skills workshops and Distance Learning.

6. Would you describe the climate of your school as cooperative? Is there cooperation between teachers, teachers and management, teachers and students, teachers and guardians, students among themselves?

Yes, maybe more cooperative in SCSs. In the gymnasium, since it was large in population, with more students and more teachers, cooperation existed to a certain extent but with greater difficulty. Also, the conditions created, the health protocols due to COVID-19, did not allow the development of collaborations either between teachers or especially between students.

7. Which teaching methods/techniques (e.g. collaborative method, lecture...) and supporting tools (e.g. digital materials, worksheets, concept maps...) do you usually use in your course?

I use a combination of methods and tools. The enriched presentation, the brainstorming, the collaborative method, the differentiated teaching from tools in addition to the printed material, I also use digital, especially in SCSs a lot of digital material.

8. How do you try to meet the needs of your students in general? In particular, your students with different educational needs? Consider a) students with special educational needs/disability, b) foreign students (children of immigrants, refugees, refugee minors) and c) foreign students with special educational needs/disability?

I try to respond to their needs as follows: I first identify them and then adjust my teaching based on them. The coexistence of students with different national origins or needs (e.g. special educational needs/disability) is achieved through the design of my teaching so that it addresses everyone.

9. Do you know the terms intercultural education, inclusive education and Universal Design for Learning (UDL)?

Yes, I know them and I consider their application in the modern school necessary.

- If so, from what source? (Studies, training, internet...): the intercultural and inclusive education from my postgraduate studies. The Universal Design for Learning from a related seminar under the auspices of EEPEK.

- How do you perceive each of them? Do you consider it a necessity to implement them in the modern school? • If yes/no, I would like to ask the following: 1. When you teach do you use digital material? Yes, I use. 2. Physical objects? Try. 3. Do you connect the subject with real life? Yes. 4. Is there variety in activities to express the acquired knowledge? Yes. 5. Do you enrich your teaching with additional/differentiated material or are you content with using the book? Of course, not only in SCSs where there is no specific book, but also in the integration departments. 6. Is student feedback frequent? Yes, I consider student feedback to be a key component of my teaching. 7. Do you keep up to date with innovative practices and experiment within the classroom? I try, and yes I experiment like with Universal Design for Learning. 8. do you collaborate with other specialties? In SCSs, yes. We also have interdisciplinary projects that contribute to this. In the inclusion classes, I only work with the general class teacher of the corresponding specialty. 9. Do you try to create a climate of respect, unity and cooperation among students with appropriate actions? Yes, I try and stick to it. 10. If a student is indifferent/doesn't participate what do you do? I try to understand why and act accordingly. 11. If a student does not keep up cognitively with the rest what do you do? I am partially differentiating my teaching, reprogramming it to be somewhat participatory and working a lot on the peer-tutoring method which I have found to be very helpful. 12. If a student provokes with inappropriate behavior how you do react (e.g. racist attitudes)? I intervene, but not with face-to-face recommendations. That is, I create scenarios and involve all the students. I do not target students. 13. Do you reflect on the design, duration and completion of your teaching? Always, I check a) what I have to do and what the students' needs are, b) how I will do it, c) what worked correctly and what didn't in the application of the teaching, what are its results.

10. Do you apply any of the aforementioned educational practices? Yes, basically all of them. If yes: a) Do you encounter obstacles? What kind of; Obstacles have to do with insufficient classroom equipment and the fact that a lot of preparation time is required at home. OF COURSE THE CURRICULUM DOESN'T HELP.

b) What are the results (in terms of the teaching itself, the students but also you)? I have noticed as I said that I am more efficient and I manage to address all the students. Regarding the students in particular, I find that an important result is the reduction of school dropout. Students enjoy taking my classes and most gain, have positive-improved performance. If not: Why don't you implement them?

11. If you are a teacher in a secondary school and at the same time in SCSs, do you think there is any difference in the application of the aforementioned practices? (e.g. due to Curriculum, adult characteristics...) For sure. In SCSs these practices are applied much more easily. There is flexibility. Consider that there is no specific book that we must follow. We plan what and how we will teach. On the contrary, in a secondary School, curricula are an obstacle to their implementation. Of course, the difficulty for adults is that they have already formed or adopted specific perceptions about the way of teaching (the traditional/teacher-centered) and partly the new practices alienate them. So we are called to transform such entrenched perceptions.

12. UDL is an educational framework that promotes inclusion and intercultural education since it aims at equal access for all to the educational process. Do you agree with the above statement? Justify your answer. I agree, I think UDL has a common goal with intercultural education. It is a practice that helps with the ways of teaching that advance the realization of the other two.

13. On the occasion of the urgent need for school distance education due to the Covid-19 pandemic, to what extent do you think that the implementation of UDL is possible and promotes intercultural and inclusive education respectively in digital learning environments?

Justify your answer. Yes, I believe that it is possible to apply UDL in a digital environment as well. Personally this year during the period we operated remotely I applied UDL. However, I believe that it requires a relevant training for teachers; I was trained as I told you. And I think in Greece, we are far behind in this, in the essential, timely, systematic and meaningful training of teachers.

Thank you very much for your participation and cooperation. I assure you once again that the responses are confidential and will be used solely for research purposes. In order to ensure the privacy of the participants, the interview is anonymous.

Interview 6

1. Are the classes you teach classified as mixed? Identify.

Yes, they are mixed. Students have differences both in terms of national identity and needs. Many students with special needs or disabilities now attend mainstream schools.

2. How many students do the classes you teach usually include?

I am a secondary school teacher. I have worked in both a general lyceum and a general gymnasium and my number of students has always ranged between 24 and 27.

3. Do you face difficulties in your teaching? If so, what kind? How do you deal with them?

A difficulty is the curriculum which needs changes. Second difficulty is the large number of students per section. Third, the absence of equipment such as a projector or PC per classroom. And of course the management of the strong heterogeneity of the student population.

4. Do you follow the curricula? How would you characterize them?

I follow them of course. Especially in lyceum, where learning is linked to the pan-Hellenic exams for children's entrance to university institutions, you cannot deviate in the slightest from the curricula. I would venture to call them obsolete.

5. Do you take part in trainings? If so, when was the last time you participated in training?

I get it, not very often. I can't remember when the last time was.

6. Would you describe the climate of your school as cooperative? Is there cooperation between teachers, teachers and management, teachers and students, teachers and guardians, students among themselves?

Yes, in general. However, there is always space for improvement.

7. Which teaching methods/techniques (e.g. collaborative method, lecture...) and supporting tools (e.g. digital materials, worksheets, concept maps...) do you usually use in your course?

I mostly use lecture because I'm more familiar with it. Mostly I use the book and occasionally worksheets.

8. How do you try to meet the needs of your students in general? In particular, your students with different educational needs? Consider a) students with special educational needs/disability, b) foreign students (children of immigrants, refugees, refugee minors) and c) foreign students with special educational needs/disability?

I do not have any special training in how to deal with students who deviate from the typical student. I am qualified in my subject and I present it to the students in the most perfect way through presentation/lecture.

9. Do you know the terms intercultural education, inclusive education and Universal Design for Learning (UDL)?

• If so, from what source? (studies, training, internet...) I have heard the first two from colleagues mainly or articles on the internet.

- How do you perceive each of them? Do you consider it a necessity to implement them in the modern school? I can't answer because I don't know much. But logically their implementation is necessary.

- If yes/no, I would like to ask the following: when you teach do you use digital materials? No
Physical objects? No

Do you connect the subject with real life? Sometimes yes.

Is there variety in activities to express acquired knowledge, do you enrich your teaching with additional/differentiated material or are you content with using the book? I'm content with the book.

Is student feedback frequent? Yes.

Do you keep up to date with innovative practices and experiment within the classroom? No, I can't make it.

Do you collaborate with other specialties? There is no need do you try to create a climate of respect, unity and cooperation between the students with appropriate actions? Yes, I wish this; of course I do not carry out actions but direct recommendations when I deem it necessary.

If a student is indifferent/not participating what do you do? Basically I give him feedback, then it's up to him if he decides to change tactics, there's nothing else I can do. If a student is not cognitively keeping up with the rest what do you do? I point out to him that if this continues and he doesn't try to fill the gaps himself somehow, the gap will widen if a student provokes with inappropriate behaviour how do you react (e.g. racist attitudes)? With remarks to the particular student. Do you reflect on the design, duration and completion of your teaching? No.

10. Do you apply any of the aforementioned educational practices? If yes: a) Do you encounter obstacles? What kind of; b) what are the results (regarding the teaching itself, the students but also you)? If not: Why don't you implement them? No, I don't apply any. The reason is that I am not familiar; first of all I do not know these practices even on a theoretical basis.

Thank you very much for your participation and cooperation. I assure you once again that the responses are confidential and will be used solely for research purposes. In order to ensure the privacy of the participants, the interview is anonymous.

APPENDIX G: Reflection journals

Reflection journal protocol

Topic: Universal Design for Learning (UDL) and its contribution to the promotion of intercultural and inclusive education.

Participant update:

The research is conducted in the context of a doctoral thesis. Its purpose is to highlight the Universal Design for Learning (UDL) as an appropriate educational framework through the application of which inclusive and intercultural education is ensured. The anonymity of the participants and the protection of their personal data is ensured as the reflection diaries are completed anonymously. *Participants may refuse to participate in the research and/or withdraw from it at any stage. Please complete the log entry*

documents:

- 1st document: filled in during the planning of the teaching
- 2nd document: completed during implementation/implementation of the teaching plan.

Thank you for your participation and cooperation.

PARTICIPANT 1

1st Record (planning)
<p>1. What is happening? (Description)</p> <p>I plan to teach the subject of Literature in 1st class of a gymnasium implementing UDL. Duration: 4 hours. I teach in integration departments. However the plan will take place in the regular class with the cooperation of the general teacher.</p>
<p>2. How do I feel? What do I expect? (Feelings/Expectations)</p> <p>I feel very confident and satisfied implementing UDL because it is something common for me. Despite the traditional instruction and curriculum that exist, I have managed to enrich my instruction with methods, practices and tools compatible to UDL.</p>

<p>1. My reaction (Reaction)</p> <p>I try to schedule my plan using UDL guidelines more intentionally.</p>
<p>2. Planning evaluation (Evaluation)</p> <p>My school is well equipped but as I teach in an integration department I do not have in my disposal a regular classroom (it is smaller, without a pc or projector neither an interactive whiteboard) and this limits me and forces me to move on personal interventions. However, the classroom I will teach my plan has a whiteboard and a projector. I have also to take into account the curriculum which is not fully compatible with UDL and the special measures for COVID. I avoided preparing a lesson for distance learning as my students are not keen on it.</p>
<p>3. What would I do differently in a future planning? (Future action)</p> <p>I cannot think anything.</p>

<p>2nd Record (implementation)</p>
<p>1. What is happening? (Description)</p> <p>I teach the subject of Literature in 1st class of a gymnasium implementing UDL. Duration: 4 hours.</p>
<p>2. How do I feel? (Feelings)</p> <p>I feel satisfied; I have a sense of fulfillment seeing the results of my instruction.</p>
<p>3. My reaction (Reaction)</p> <p>Of course it is a bit tiring and stressful having to prepare a whole classroom but it worth's.</p>
<p>4. Results (Evaluation)</p> <ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) Officially, I have only students with special needs. But the plan was for a whole class. In general, all the students had shown interest, cooperated and participated. Better performance. ● Foreign students (response-participation, performance, attitudes) My foreign students who attend informally (two in number) were affected positively as they have understood more, shown interest and consequently have participated and cooperated more. Better performance. ● Students with special needs/disability (response - participation, performance, attitudes) They are always helped of such procedure. They have understood more due to the different ways of the subject's presentation, they have expressed satisfactory via the various tasks and have cooperated harmoniously. Greater interest, participation. Better performance. ● Foreign students with special needs/disability (response - participation, performance, attitudes) They have shown a bigger ease to understand and participate..
<p>5. What would I do differently in a future planning? (Future action)</p> <p>I would try to implement my plan in a digital environment as well. It will be a big challenge for me.</p>

PARTICIPANT 2

1st Record (planning)
<p>3. What is happening? (Description)</p> <p>I plan to teach Ancient Greek in 3rd of a gymnasium (integral department) implementing UDL.</p>
<p>4. How do I feel? What do I expect? (Feelings/Expectations)</p> <p>I feel a bit anxious because I have not implemented UDL before but at the same time satisfied by myself for my attempt.</p> <p>I expect my students to have a better understanding. I also expect to have a better collaboration despite their differences.</p>
<p>4. My reaction (Reaction)</p> <p>I intend to use new practices and tools like digital tools despite the fact that I am not used to them.</p>
<p>5. Planning evaluation (Evaluation)</p> <p>Although, I teach in an integral department, I will implement my plan in the whole class with general teacher's consent. It takes me more time to plan my lesson and I face a difficulty in choosing the appropriate practices and tools as I am not used to it, I have not a relevant training and I have to learn them in a short time. Also the curriculum is not in fully accordance with UDL. Last but not least I have to take into account some parameters like the lack in educational equipment, the special measures for COVID-19 and if I will prepare a plan for distance learning despite the fact that I think it is more difficult even for me even for my students.</p>
<p>6. What would I do differently in a future planning? (Future action)</p> <p>I would try to get trained before any coming implementation.</p>

2nd Record (implementation)
<p>6. What is happening? (Description)</p> <p>I teach Ancient Greek in 13rd of a gymnasium (integral department) implementing UDL. Duration: 4 teaching hours.</p>
<p>7. How do I feel? (Feelings)</p> <p>Finally, I feel satisfied implementing UDL but at the same time extremely tired of the whole process, planning and implementing something I was not familiar with.</p>
<p>8. My reaction (Reaction)</p> <p>I had some difficulties in implementation like the fact that I finally implemented my plan in the context of distance learning, a new field even for me and my students. Also, tasks that were ultimately not implemented because there was not enough time or because they were not the right ones in the end.</p>
<p>9. Results (Evaluation)</p> <ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) <p>They have shown interest, cooperation and participation. Better performance.</p>

<ul style="list-style-type: none"> ● Foreign students (response-participation, performance, attitudes) They have shown interest, cooperation and participation. Better performance. ● Students with special needs/disability (response - participation, performance, attitudes) My students have shown great interest, participation but as regards their performance I cannot confidently evaluate. I would say that they had a better performance. ● Foreign students with special needs/disability (response - participation, performance, attitudes) My students have shown great interest but as regards their performance I cannot confidently evaluate.
10. What would I do differently in a future planning? (Future action)
I would try to adopt and implement practices and tools that I know well and I really can implement.

NOTES:
The teacher applied UDL for the first time.
He has no relevant training.

PARTICIPANT 3

1st Record (planning)
5. What is happening? (Description) I plan to teach Greek Language 1 st class of a gymnasium. Although I teach in an integration department I will implement UDL in the whole class with general teacher's consent..
6. How do I feel? What do I expect? (Feelings/Expectations) I feel anxious as it is the first time I attempt this. I also have a sense of fulfillment and satisfaction by myself. I expect my students to have better results (interest, understanding, use).
7. My reaction (Reaction) I intend to use new practices and tools, for example digital tools and printed material like photos.
8. Planning evaluation (Evaluation) It takes me more time to plan my lesson as I have to follow specific guidelines that I am not familiar to. The curriculum, the extra measures for COVID, distance learning and the fact that the educational equipment is poor, are limiting factors.
9. What would I do differently in a future planning? (Future action) I would try to participate in a relevant training program before a future implementation.

2nd Record (implementation)
11. What is happening? (Description) I teach Greek Language 1 st class of a gymnasium in an integration department implementing UDL. Duration: 4 teaching hours.

<p>12. How do I feel? (Feelings)</p> <p>I feel satisfied implementing UDL but tired too because I dedicated much more time and effort than usual. Also I have some doubts if I implement a satisfactory quantity of the basic guidelines.</p>
<p>13. My reaction (Reaction)</p> <p>I have some difficulties due to lack of experience, for example I lost more time in some tasks and some others I could not implement due to lack of time as I have to finish my unit following the curriculum.</p>
<p>14. Results (Evaluation)</p> <ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) Greater interest and participation. Collaboration and better performance. ● Foreign students (response-participation, performance, attitudes) Greater interest and participation. Collaboration and better performance. ● Students with special needs/disability (response - participation, performance, attitudes) They have shown interest and tried to participate. They loved group tasks. Collaboration and better performance. ● Foreign students with special needs/disability (response - participation, performance, attitudes) They have shown interest and tried to participate. They loved group tasks. Collaboration and better performance.
<p>15. What would I do differently in a future planning? (Future action)</p> <p>I would try to participate in a relevant training program before a future implementation.</p>

<p>NOTES:</p> <p>The teacher applied UDL for the first time.</p> <p>He has relevant training.</p>

PARTICIPANT 4

<p>1st Record (planning)</p>
<p>7. What is happening? (Description)</p> <p>I plan to teach Mathematics in 1st class in a gymnasium implementing UDL. I generally teach in an integral department but the specific lesson regards the whole class.</p>
<p>8. How do I feel? What do I expect? (Feelings/Expectations)</p> <p>I feel quite confident as I enrich in general my instruction with compatible to UDL practices. I also feel very satisfied by my whole work. I expect my students to have a better perception and understanding of the subject as usual.</p>
<p>10. My reaction (Reaction)</p> <p>I use practices and tools like digital material and the interactive whiteboard which is available in two classrooms.</p>
<p>11. Planning evaluation (Evaluation)</p> <p>I have to schedule my plan and arrange for my instruction duration to change classroom in order to have the necessary equipment. Also, the curriculum , distance learning and the measures for COVID are factors that do not help me.</p>
<p>12. What would I do differently in a future planning? (Future action)</p>

Maybe I would skip tasks in the interactive whiteboard.

2nd Record (implementation)

16. What is happening? (Description)

I teach Mathematics in an integral department of 1st class in a gymnasium implementing UDL. Duration: 3 teaching hours.

17. How do I feel? (Feelings)

I feel satisfied implementing UDL as regards my instruction and the results.

18. My reaction (Reaction)

I had some obstacles in implementation. We lost much time trying to use specific digital equipment and something that I hadn't thought well about was the protocol about COVID-19. There were many restrictions as the use of mask, keep distance each other and not share and use common objects.

19. Results (Evaluation)

- Total students (response - participation, performance, attitudes)
In general in my classes attend only children with special needs certified by the corresponding organization (KEDASY). But now I addressed to the whole class with the help of the general teacher. We saw that students had a bigger interest, participation and better performance.
- Foreign students (response-participation, performance, attitudes)
In general in my classes attend only children with special needs certified by the corresponding organization (KEDASY). But now I addressed to the whole class with the help of the general teacher. We saw that students had a bigger interest, participation and better performance.
- Students with special needs/disability (response - participation, performance, attitudes)
My students have understood the material, they have expressed themselves without fear or shame, they were more confident about themselves and they have cooperated more. Better performance, participation and greater interest.
- Foreign students with special needs/disability (response - participation, performance, attitudes)
My students have understood the material, they have expressed themselves without fear or shame, they were more confident about themselves and they have cooperated more. Better performance, greater interest.

20. What would I do differently in a future planning? (Future action)

I would try to schedule a plan for implementation based on what I have (equipment) and having in mind the special circumstances due to COVID-19.

PARTICIPANT 5

1st Record (planning)

9. What is happening? (Description)

I plan to teach Mathematics not only in the integration department of 1st class of a gymnasium that I usually teach but to the whole class implementing UDL.

10. How do I feel? What do I expect? (Feelings/Expectations)

I feel happy, satisfied and confident as I have implemented UDL before. I expect my students to have a better perception and understanding using multiple means for representation and expression.

13. My reaction (Reaction)
I intend to use more tools and techniques like digital tools that are something I do not usually do as we do not have much time.
14. Planning evaluation (Evaluation)
I face a difficulty in choosing the appropriate practices and tools as I have restricted time for implementation and I have to follow the relevant curriculum. Also, the measures for COVID are a deterrent for me. I decided not to schedule my plan for distance learning as we have many difficulties in this matter (bad internet connection, no equipment for all students).
15. What would I do differently in a future planning? (Future action)
I would try to skip some tools or techniques due to lack of time.

2nd Record (implementation)
21. What is happening? (Description)
I teach Mathematics in 1 st class of a gymnasium implementing UDL. Duration: 3 teaching hours.
22. How do I feel? (Feelings)
I feel satisfied implementing UDL
23. My reaction (Reaction)
I have some difficulties in implementation , I skipped some tasks because my students needed more time in each task especially in group tasks.
24. Results (Evaluation)
<ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) Greater interest and participation. Better performance. ● Foreign students (response-participation, performance, attitudes) Greater interest and participation. Better performance. ● Students with special needs/disability (response - participation, performance, attitudes) My students were helped by the use of multiple means of representation to understand in depth the teaching subject. They have also expressed the new knowledge through tasks. They have also helped in their relationship as the group tasks and the peer tutoring helped to this direction. Greater interest and participation. Better performance. ● Foreign students with special needs/disability (response - participation, performance, attitudes) My students were helped by the use of multiple means of representation to understand in depth the teaching subject. They have also expressed the new knowledge through tasks. They have also helped in their relationship as the group tasks and the peer tutoring helped to this direction. Greater interest and participation. Better performance.
25. What would I do differently in a future planning? (Future action)
I would try to implement fewer practices and tools always following the timetable.

PARTICIPANT 6

1st Record (planning)

11. What is happening? (Description)
I plan to teach Greek Language in 1 st class in a gymnasium implementing UDL. Although I regularly teach in the integration department. To be more specific I am going to teach the unit of “Paragraph and compound words”.
12. How do I feel? What do I expect? (Feelings/Expectations)
I feel very confident scheduling my plan based on UDL as I regularly enrich my teaching with methods and tools compatible to UDL. I feel very satisfied of my attempt and work.
16. My reaction (Reaction)
I am trying to find interesting material digital and printed beyond the textbook which, I believe confuses children than helps them.
17. Planning evaluation (Evaluation)
Of course the curriculum, the lack in equipment, and the measures for COVID provoke difficulties to me. I won't implement my plan in webex (distance learning) as there are several problems with it. Even my personal equipment I am obliged to use for it, my internet connection are not the right ones.
18. What would I do differently in a future planning? (Future action)
I cannot think anything.

2nd Record (implementation)
26. What is happening? (Description)
I teach Greek Language in 1 st class in a gymnasium implementing UDL. Duration: 4 teaching hours.
27. How do I feel? (Feelings)
I feel very satisfied implementing UDL both for the quality of my instruction and my students' positive response.
28. My reaction (Reaction)
In order to implement my plan and have positive results I did not follow the regular timetable and the curriculum. I dedicated more hours in the specific unit.
29. Results (Evaluation)
<ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) Greater interest and participation/collaboration. Better performance. ● Foreign students (response-participation, performance, attitudes) Greater interest and participation. Better performance. ● Students with special needs/disability (response - participation, performance, attitudes) My students corresponded fully. They have understood the teaching unit as I evaluated them through individual and team work. Greater interest and participation/collaboration. Better performance. ● Foreign students with special needs/disability (response - participation, performance, attitudes) Accordingly, my foreign students with special educational needs responded satisfactorily developing a very good cooperation. Greater interest and participation/collaboration. Better performance.
30. What would I do differently in a future planning? (Future action)
I would not do anything differently.

PARTICIPANT 7

1st Record (planning)	
13. What is happening? (Description)	I am a teacher of an integration department, however I plan to teach Greek Language and more specific the topics “paragraph structure, modes of paragraph development and linking words” implementing UDL in 3 rd class of a gymnasium.
14. How do I feel? What do I expect? (Feelings/Expectations)	I do not feel anxious despite the fact that I have not implemented UDL before. I have a sense of satisfaction and achievement for my work. I expect my students to have a better understanding of the teaching subject and be able to use the relevant information. I also expect them to have a better collaboration despite their differences and produce group works.
19. My reaction (Reaction)	I intend to use new methods and tools like digital tools despite the fact I am not used to it and the previous time (6 months) I got tired working in a wholly digital environment due to schools’ closure as a preventive measure against COVID-19.
20. Planning evaluation (Evaluation)	I am not keen on new technologies, and UDL. I also dedicate too much time in planning as I face difficulties in choosing the appropriate practices and tools as well as to incorporate in my teaching methods or tools compatible not only to UDL but also to the curriculum. The measures for COVID are a restricted factor too and I take them into account. Distance learning is difficult in my case too.
21. What would I do differently in a future planning? (Future action)	I would try to use fewer tools or methods especially inn the special conditions that COVID created.

2nd Record (implementation)	
31. What is happening? (Description)	I teach Greek Language and more specific the topics “paragraph structure, modes of paragraph development and linking words” implementing UDL in 3 rd class of a gymnasium. Duration: 4 teaching hours.
32. How do I feel? (Feelings)	On the one hand, I feel satisfied implementing UDL. On the other hand, I feel very tired as I dedicated much more time and effort than usual to prepare and implement the lesson. I also have some doubts about the evaluation.
33. My reaction (Reaction)	I have some difficulties in evaluation. I also faced difficulties using New Technologies like the interactive whiteboard, I lost much time in tasks on it and some of my students get bored.
34. Results (Evaluation)	<ul style="list-style-type: none"> • Total students (response - participation, performance, attitudes) Greater interest and participation. Better performance.

<ul style="list-style-type: none"> ● Foreign students (response-participation, performance, attitudes) Greater interest and participation. Better performance. ● Students with special needs/disability (response - participation, performance, attitudes) My students in general have shown interest especially in the beginning but after some time some got tired in particular with tasks in the interactive whiteboard. They have cooperated very well in group tasks. I cannot evaluate for sure their total performance but I think was positive. Greater interest and participation. Better performance. ● Foreign students with special needs/disability (response - participation, performance, attitudes) My students have shown interest but after some time some of them got tired in particular with tasks in the interactive whiteboard. They have cooperated very well in group tasks. I cannot evaluate for sure their total performance. I believe was positive. Greater interest and participation. Better performance. 		
<p>35. What would I do differently in a future planning? (Future action)</p> <p>I would try to use fewer tasks on New Technologies as I am not familiar to.</p>		
<p>NOTES:</p> <table border="1"> <tr> <td>The teacher applied UDL for the first time.</td> </tr> <tr> <td>He has no relevant training.</td> </tr> </table>	The teacher applied UDL for the first time.	He has no relevant training.
The teacher applied UDL for the first time.		
He has no relevant training.		

PARTICIPANT 8

<p>1st Record (planning)</p>
<p>15. What is happening? (Description)</p> <p>I am a teacher of Greek literacy at a Second Chance School and I plan my teaching according to the principles of UDL. Unit title: THE GIVING TREE. Duration of implementation: 4 teaching hours.</p>
<p>16. How do I feel? What do I expect? (Feelings/Expectations)</p> <p>I feel happy and satisfied to try something new. I expect to help my adult learners approach the subject and collaborate in a learning environment new to them, distance education.</p>
<p>17. My reaction (Reaction)</p> <p>I design based on the framework of UDL, the given of distance education and of course the needs of my apprentices who are adults.</p>
<p>18. Planning evaluation (Evaluation)</p> <p>This is the first time I have fully implemented UDL. I have adopted elements of it in the past but this is the first time I am faithfully following its framework which requires me to spend more time on preparation. Also, classes are held remotely due to the coronavirus measures, so I take this factor into account.</p>
<p>19. What would I do differently in a future planning? (Future action)</p> <p>I would try in advance to ensure contemporaneous attendance by all apprentices. In our case, while the teaching will be done synchronously, I have provided for the students who cannot connect to have the material and feedback available asynchronously from my side.</p>

2nd Record (implementation)
36. What is happening? (Description) I teach applying UDL to adults in a digital classroom.
37. How do I feel? (Feelings) I get satisfaction from seeing the response of my apprentices. Personal satisfaction because it turned out to be a perfect teaching, well planned with a beginning, middle and end.
38. My reaction (Reaction) Connection problems, i.e. technical problems that were expected and accounted for and therefore did not affect teaching. However, the available tools, the measures for Covid, were inhibiting factors.
39. Results (Evaluation) <ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) As a whole, the students responded positively (they showed interest, participated and cooperated, better performance). ● Foreign students (response-participation, performance, attitudes) The foreign apprentices respectively benefited positively from the implementation of UDL. Greater cognitive understanding and more engagement, they showed interest, participated and cooperated, better performance. ● Students with special needs/disability (response - participation, performance, attitudes) An apprentice with mental retardation attends the department. He responded to monitoring (his attention was focused) and participated more actively, he showed interest, participated and cooperated, better performance. ● Foreign students with special needs/disability (response - participation, performance, attitudes) They showed interest, participated and cooperated, better performance.
40. What would I do differently in a future planning? (Future action) I wouldn't do anything differently except for trying to somehow make distance learning possible for all learners (free connection, provision of equipment). But this is beyond the capabilities of a trainer.

NOTES:
The teacher applied UDL for the first time.
He has no relevant training.

PARTICIPANT 9

1st Record (planning)
20. What is happening? (Description)

I plan to teach Greek Language in 1 st and 2 nd cycle of SCSs implementing UDL.
21. How do I feel? What do I expect? (Feelings/Expectations) I feel very anxious because it is the first time I use UDL and I worry about the process and the results. I expect to help my students to have a better performance.
22. My reaction (Reaction) I am trying to think about new methods and tools compatible to UDL.
23. Planning evaluation (Evaluation) It takes me more time to plan my lesson because I am not familiar to it. Also I have to skip some of my ideas because I do not have the necessary tools at my school (interactive whiteboard).
24. What would I do differently in a future planning? (Future action) I would try to cooperate with other teachers because I believe that would be helpful to share ideas.

2nd Record (implementation)
41. What is happening? (Description) I teach Greek Language in 1 st and 2 nd cycle of SCSs implementing UDL. Duration: 3 teaching hours.
42. How do I feel? (Feelings) On the one hand I feel satisfied implementing UDL due to the positive results. On the other hand I feel quite tired due to the anxiety of the whole pressure to prepare something new that I am not familiar to..
43. My reaction (Reaction) I implement my plan but I have not the experience/the qualifications to decide or try to alter something that is not successful. Also, I found difficulties in implementing my plan in the context of distance learning and in live learning because of the measures for COVID.
44. Results (Evaluation) <ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) My students in total have shown more interest and they have understood the new knowledge. They have also expressed and participated more. Better performance. ● Foreign students (response-participation, performance, attitudes) My foreign students have responded better than in common instruction. They have shown a greater interest and they have participated more. Better performance. ● Students with special needs/disability (response - participation, performance, attitudes) Interest, participation, better performance than in traditional teaching. ● Foreign students with special needs/disability (response - participation, performance, attitudes) Interest, participation, better performance than in traditional teaching.
45. What would I do differently in a future planning? (Future action) I would have more alternatives.
NOTES: The teacher applied UDL for the first time. He has no relevant training.

PARTICIPANT 10

1st Record (planning)
22. What is happening? (Description) I plan to teach Greek language in the second cycle of Second Chance Schools implementing UDL. Duration of implementation: 4 teaching hours.
23. How do I feel? What do I expect? (Feelings/Expectations) I feel confident as I am trained to UDL and I implement UDL in my teaching in a regular basis. I feel satisfied of my work. I expect to preserve an educational climate that favors all students and their collaboration despite any personal differentiating characteristics.
24. My reaction (Reaction) I use a variety of methods following the main guidelines of UDL.
25. Planning evaluation (Evaluation) I am trying to adapt the learning subject to my students needs according the available equipment which is not the best. I make a plan suitable for distance learning and live learning too.
26. What would I do differently in a future planning? (Future action) I would plan my lesson using more digital tools.

2nd Record (implementation)
46. What is happening? (Description) I teach Greek language in the second cycle of Second Chance Schools implementing UDL. Duration of implementation: 4 teaching hours.
47. How do I feel? (Feelings) I feel satisfied as a teacher for my teaching and for my students' performance.
48. My reaction (Reaction) As I deal with adults with different learning styles and other differentiating characteristics I am prepared to handle possible problems or disagreements. I cultivate to my students the concepts of differentiation and respect. I found difficulties in implementing my plan in distance learning but also in live learning due to the strict measures for COVID (use of masks, keeping distance).
49. Results (Evaluation) <ul style="list-style-type: none">● Total students (response - participation, performance, attitudes) My students are used to UDL. They have equal access in my lesson and opportunities as well to express themselves. Interest, participation, better performance than in traditional teaching.● Foreign students (response-participation, performance, attitudes) My foreign students respond better since I started to use UDL. They collaborate better with others. Interest, participation, better performance than in traditional teaching.● Students with special needs/disability (response - participation, performance, attitudes) Accordingly, my students with special needs have a better performance (participation, performance and interest).

<ul style="list-style-type: none"> ● Foreign students with special needs/disability (response - participation, performance, attitudes) <p>There is one student of this category and he/she is positive affected by UDL. He is more positive to participate and express him/herself as much as he/she can. Interest, participation, better performance than in traditional teaching.</p>
<p>50. What would I do differently in a future planning? (Future action)</p> <p>I would rely more on New Technologies as due to COVID-19 students approved blended teaching.</p>

PARTICIPANT 11

1st Record (planning)
<p>27. What is happening? (Description)</p> <p>I plan to teach Greek Language and more specific the types of texts in 1st and 2nd cycle of SCSs implementing UDL.</p>
<p>28. How do I feel? What do I expect? (Feelings/Expectations)</p> <p>I feel satisfied of my work planning despite the fact that I have not implemented UDL before. I expect my students to have a better perception and understanding. I also expect to have a better collaboration despite their differences.</p>
<p>25. My reaction (Reaction)</p> <p>I intend to use new practices and tools, for example digital tools that are something I do not usually do.</p>
<p>26. Planning evaluation (Evaluation)</p> <p>I face a difficulty in choosing the appropriate practices and tools as I am not qualified in UDL.</p>
<p>27. What would I do differently in a future planning? (Future action)</p> <p>I would try to know better the tools I use.</p>

2nd Record (implementation)
<p>51. What is happening? (Description)</p> <p>I teach Greek Language and more specific the types of texts in 1st and 2nd cycle of SCSs implementing UDL. Duration: 4 teaching hours.</p>
<p>52. How do I feel? (Feelings)</p> <p>Finally, I feel satisfied implementing UDL but tired at the same time because I dedicated much more time and effort than usual in order to prepare the lesson and implement it.</p>
<p>53. My reaction (Reaction)</p> <p>I have some difficulties due to lack of experience and qualifications. For example I lost more time in some tasks and some others I could not implement due to lack of time. Also, the lack in infrastructure, the measures due to COVID-19 were a real obstacle implementing my plan. I've tried to implement UDL even in distance learning but I find it difficult for me and my students as well.</p>
<p>54. Results (Evaluation)</p> <ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes)

<p>In general my students have shown more interest, but some of them those who had better performance get bored more easily. They have also cooperated very well.</p> <ul style="list-style-type: none"> ● Foreign students (response-participation, performance, attitudes) <p>My foreign students were affected positively as they have shown interest, understood more and participated. Better performance</p> <ul style="list-style-type: none"> ● Students with special needs/disability (response - participation, performance, attitudes) <p>More interest, participation, than in traditional teaching. Better performance.</p> <ul style="list-style-type: none"> ● Foreign students with special needs/disability (response - participation, performance, attitudes) <p>More interest, participation, than in traditional teaching.</p>		
<p>55. What would I do differently in a future planning? (Future action)</p> <p>I would try to adopt and implement fewer practices and tools and follow the timetable.</p>		
<p>NOTES:</p> <table border="1"> <tr> <td>The teacher applied UDL for the first time.</td> </tr> <tr> <td>He has no relevant training.</td> </tr> </table>	The teacher applied UDL for the first time.	He has no relevant training.
The teacher applied UDL for the first time.		
He has no relevant training.		

PARTICIPANT 12

<p>1st Record (planning)</p>
<p>29. What is happening? (Description)</p> <p>I plan to teach English in 1st and 2nd cycle of SCSs implementing UDL.</p>
<p>30. How do I feel? What do I expect? (Feelings/Expectations)</p> <p>I feel confident because I am trained and I implement UDL as much I can and for this reason I am satisfied.</p> <p>I expect to help all students to understand better the subject, to collaborate and use the knowledge they gain.</p>
<p>31. My reaction (Reaction)</p> <p>I follow the principles of UDL thus I use methods and techniques that are compatible to UDL.</p>
<p>32. Planning evaluation (Evaluation)</p> <p>It is more aspiring to work in a such way, setting goals that refer not only to the subject but the whole process in order to ensure equality, mutual respect, collaboration and learning. However, I am trained in UDL and I have implemented it many times I found it difficult to plan a schedule for distance learning. So, I prepared my lesson for live teaching.</p>
<p>33. What would I do differently in a future planning? (Future action)</p> <p>Prior the implementation I would prepare my students about UDL as its something they are not familiar to.</p>

<p>2nd Record (implementation)</p>
<p>56. What is happening? (Description)</p> <p>I teach English in 1st and 2nd cycle of SCSs implementing UDL. Duration of implementation: 3 teaching hours.</p>
<p>57. How do I feel? (Feelings)</p>

I feel satisfied for my students performance and myself for the instruction.
<p>58. My reaction (Reaction)</p> <p>I implement methods and techniques according to UDL. I am trying to engage my students respecting their needs and create a climate of collaboration. Some tools I have enclosed to my teaching did not operated properly (bad internet connection). Also, the measures for COVID were not helpful at all. Despite the difficulties I managed to implement my plan.</p>
<p>59. Results (Evaluation)</p> <ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) Students have responded better. They have shown interest and willingness to participate and collaborate. Better performance. ● Foreign students (response-participation, performance, attitudes) My foreign students have responded better too. They have also shown a bigger interest and willingness for collaboration and participation. Better performance. ● Students with special needs/disability (response - participation, performance, attitudes) Accordingly, my students with special needs have a better performance (participation and interest). ● Foreign students with special needs/disability (response - participation, performance, attitudes) Accordingly, my students with special needs have a better performance (participation and interest).
<p>60. What would I do differently in a future planning? (Future action)</p> <p>I would inform my students about UDL as it was necessary a time to get used to it.</p>

PARTICIPANT 13

1st Record (planning)
<p>34. What is happening? (Description)</p> <p>I plan to teach Greek Language in 2nd cycle of SCSs implementing UDL.</p>
<p>35. How do I feel? What do I expect? (Feelings/Expectations)</p> <p>I feel quite confident as it is not the first time I use UDL.. a bit anxious due to the fact I do not have relevant training.</p> <p>I expect to help my students to have a better experience as far as the learning process is concerned.</p>
<p>28. My reaction (Reaction)</p> <p>I am trying to enrich my plan with methods, techniques and tools compatible to UDL.</p>
<p>29. Planning evaluation (Evaluation)</p> <p>I am not familiar to it. I have to think about the infrastructure, what tools are available at my school. Also, the measures for COVID. I did not plan to implement my plan in distance learning, this is inhibiting for me.</p>
<p>30. What would I do differently in a future planning? (Future action)</p> <p>I would try to ensure on time the availability of tools..</p>

2nd Record (implementation)
<p>61. What is happening? (Description)</p>

I teach Greek Language in 2 nd cycle of SCSs implementing UDL. Duration: 3 teaching hours.
62. How do I feel? (Feelings) I feel satisfied as my lesson plan as it met the initial goals.
63. My reaction (Reaction) I implement my plan trying to follow it exactly as it is. However I faced difficulties as regards the equipment and the restricted measures for COVID.
64. Results (Evaluation) <ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) My students have shown more interest and willingness to participate. They have also cooperated more in group tasks and have better performance. ● Foreign students (response-participation, performance, attitudes) My foreign students have responded better than in common instruction. They have shown a greater interest and participation. Better performance. ● Students with special needs/disability (response - participation, performance, attitudes) Accordingly, my students with special needs have shown interest and they have managed to participate more. Better performance. ● Foreign students with special needs/disability (response - participation, performance, attitudes) Accordingly, my students with special needs have shown interest and they have managed to participate more. Better performance.
65. What would I do differently in a future planning? (Future action) Maybe the next time I have to be more flexible and skip some tasks that I cannot do.
Note:
He has not relevant training.

PARTICIPANT 14

1st Record (planning)
36. What is happening? (Description) I plan to teach Environmental Education in 1 st and 2 nd cycle of SCSs implementing UDL.
37. How do I feel? What do I expect? (Feelings/Expectations) I feel very confident as I have used UDL in the past. I am satisfied from my self. I expect to help my students to be able to learn, to collaborate and express in practice the new knowledge.
31. My reaction (Reaction) I follow the principles of UDL. I use relevant methods and techniques.
32. Planning evaluation (Evaluation) It takes me more effort to plan and enrich my lesson according UDL and the curriculum guide of SCSs. Also, I plan to implement my plan not in distance learning but in live as I do not feel secure and ready to do so. I take into account the conditions in schools due to COVID and of course I prepare my plan based on what equipment is available.

33. What would I do differently in a future planning? (Future action)
I would schedule an hour to be outdoors closer to the theme (educational visit)..

2nd Record (implementation)	
66. What is happening? (Description)	I teach Environmental Education in 1 st and 2 nd cycle of SCSs implementing UDL. Duration: 4 teaching hours.
67. How do I feel? (Feelings)	I feel satisfied as my lesson plan was successful meeting the initial goals.
68. My reaction (Reaction)	I implement methods and techniques according to UDL. The current measures due to COVID as well as the lack in available equipment were factors I took in mind.
69. Results (Evaluation)	<ul style="list-style-type: none">• Total students (response - participation, performance, attitudes) Students have shown interest and willingness to participate and collaborate. They have understood and implemented the new knowledge. Better performance.• Foreign students (response-participation, performance, attitudes) My foreign students have responded better than in common instruction. More interest, participation. Better performance.• Students with special needs/disability (response - participation, performance, attitudes) More interest, participation. Better performance.• Foreign students with special needs/disability (response - participation, performance, attitudes) More interest, participation.
70. What would I do differently in a future planning? (Future action)	I would try to implement a teaching hour outdoors (educational visit).

PARTICIPANT 15

1st Record (planning)	
38. What is happening? (Description)	I plan to teach Mathematics (fractions) in 1 st and 2 nd cycle of SCSs implementing UDL.
39. How do I feel? What do I expect? (Feelings/Expectations)	I do not feel anxious or worried about the process and the results despite the fact that is the first time I implement UDL I am very satisfied from my work. I expect to help my students to have a better aspect of the teaching subject, to understand and use fractions for daily use.
34. My reaction (Reaction)	I am trying to think about new methods and tools compatible to UDL. I think about how to correlate everyday objects and situations with fractions. Also, I am trying to use digital tools and in general technology in order to ensure multiple choices in presentation, engagement and expression.

<p>35. Planning evaluation (Evaluation)</p> <p>It takes me more effort as I have to think differently, to have more alternatives in tasks et cetera. Also, I have to plan my lesson based on the available infrastructure and the measures of COVID which are restricted in some point.</p>
<p>36. What would I do differently in a future planning? (Future action)</p> <p>I would try to share UDL implementation with other teachers of my school or other schools, to cooperate with other people experienced or not.</p>

2nd Record (implementation)		
<p>71. What is happening? (Description)</p> <p>I teach Mathematics (fractions) in 1st and 2nd cycle of SCSs implementing UDL. Duration: 3 teaching hours.</p>		
<p>72. How do I feel? (Feelings)</p> <p>I really feel satisfied implementing UDL as I had positive results. Of course the whole process was more tiring than preparing and implementing a traditional lesson plan but it gave me a feeling of fulfillment.</p>		
<p>73. My reaction (Reaction)</p> <p>I implement my plan but I have some difficulties like due to lack of experience for example to proceed to a next step if something does not function as I was waiting for, or to deal with the measures for Covid and the lack in infrastructure.</p>		
<p>74. Results (Evaluation)</p> <ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) My students in total have shown more interest, they have understood the new knowledge and they have participated and co-operated each other more. Better performance. ● Foreign students (response-participation, performance, attitudes) My foreign students have responded better, they have shown a greater interest and participated more. Better performance. ● Students with special needs/disability (response - participation, performance, attitudes) My students have responded better, they have shown a greater interest and participated more. Better performance. ● Foreign students with special needs/disability (response - participation, performance, attitudes) My students have responded better, they have shown a greater interest and participated more. Better performance. 		
<p>75. What would I do differently in a future planning? (Future action)</p> <p>I would have a cooperation with other colleagues and more alternatives.</p>		
<p>NOTES:</p> <table border="1"> <tr> <td>The teacher applied UDL for the first time.</td> </tr> <tr> <td>He has no relevant training.</td> </tr> </table>	The teacher applied UDL for the first time.	He has no relevant training.
The teacher applied UDL for the first time.		
He has no relevant training.		

PARTICIPANT 16

1st Record (planning)

40. What is happening? (Description)
I plan to teach Physics in 1 st and 2 nd cycle of SCSs implementing UDL.
41. How do I feel? What do I expect? (Feelings/Expectations)
I do not feel anxious despite it is the first time I implement UDL as I am used to use different practices in adult education. I am satisfied of my plan. I expect to help my students to have a better perception of the teaching subject, to understand it and correlate it with their daily life. I also intend to create a better climate for collaboration.
37. My reaction (Reaction)
I am trying to use new practices and tools compatible to UDL. I plan to use peer tutoring, differentiated instruction, digital material and ordinary objects.
38. Planning evaluation (Evaluation)
It takes me more effort to plan my lesson because I am not familiar to it and I have some difficulty in how to incorporate various tools and tasks in my instruction keeping always in mind my students differentiating characteristics, the available tools, the measures for COVID, distance learning.
39. What would I do differently in a future planning? (Future action)
I would try to focus on a smaller series of practices and tools, to function more focused.

2nd Record (implementation)
76. What is happening? (Description)
I teach Physics in 1 st and 2 nd cycle of SCSs implementing UDL. Duration: 2 teaching hours.
77. How do I feel? (Feelings)
I feel satisfied implementing UDL as I think the results were positive. There is also a feeling of tiredness and fulfillment.
78. My reaction (Reaction)
I have some difficulties for example I was a bit confused with the different tasks. I had to focus on fewer activities as I did not have available school equipment I thought. I had to take into account the special conditions due to COVID that affected my lesson
79. Results (Evaluation)
<ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) My students in total have cooperated and used in practice the new knowledge. They have shown greater interest, participated more and had a better performance. ● Foreign students (response-participation, performance, attitudes) My foreign students have similar results. They have shown greater interest, participated more and had a better performance. ● Students with special needs/disability (response - participation, performance, attitudes) My students have similar results. They have shown greater interest, participated more and had a better performance. ● Foreign students with special needs/disability (response - participation, performance, attitudes) My students have similar results. They have shown greater interest, participated more and had a better performance..

80. What would I do differently in a future planning? (Future action)
I would focus on fewer practices and tools. Due to my lack in experience I incorporated more than the necessary.
NOTES:
The teacher applied UDL for the first time.
He has no relevant training.

PARTICIPANT 17

1st Record (planning)
42. What is happening? (Description)
I plan to teach Physics in 1 st and 2 nd cycle of SCSs implementing UDL.
43. How do I feel? What do I expect? (Feelings/Expectations)
I feel confident because I am trained and I have implemented UDL in my teaching in the past. I am very satisfied.
I expect to help all students to understand better the subject and collaborate.
44. My reaction (Reaction)
I follow the principles of UDL that means I use methods and techniques that are based on UDL.
45. Planning evaluation (Evaluation)
It is not the usual process to prepare my plan but I do it with pleasure. I find some difficulties as regards the infrastructure, to follow the SCSs guide in parallel with UDL principles, the prohibitions due to covid measures and last but not least distance learning. Thus, despite the fact that initially I intended to make a plan for distance lessons I change my mind and I prepared a plan for when the schools will be open again.
46. What would I do differently in a future planning? (Future action)
I would plan my lesson using more digital tools.

2nd Record (implementation)
81. What is happening? (Description)
I teach Physics in the first and second cycle of Second Chance Schools implementing UDL. Duration of implementation: 2 teaching hours.
82. How do I feel? (Feelings)
I feel satisfied for my students performance and my instruction..
83. My reaction (Reaction)
I have adapted my instruction to adults' characteristics and needs. I use a variety of available tools (objects, digital material) in order to address their needs having in mind difficulties as lack in infrastructure and the measures for COVID.
84. Results (Evaluation)

<ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) Students have responded better. They have even participated and cooperated more and have been engaged. Greater interest. Better performance. ● Foreign students (response-participation, performance, attitudes) My foreign students have responded better too. They have even participated and cooperated more and have been engaged. Greater interest. Better performance. ● Students with special needs/disability (response - participation, performance, attitudes) Accordingly, my students with special needs have a better performance (participation and interest). They have even cooperated more and have been engaged. Better performance. ● Foreign students with special needs/disability (response - participation, performance, attitudes) Greater interest, participation. Better performance.
<p>85. What would I do differently in a future planning? (Future action)</p> <p>I would help my students preparing them to use technology as an educational mean. The majority cannot.</p>

PARTICIPANT 18

1st Record (planning)
<p>47. What is happening? (Description)</p> <p>I plan to teach Greek literature in third class of lower secondary education implementing UDL. Duration of implementation: 4 teaching hours.</p>
<p>48. How do I feel? What do I expect? (Feelings/Expectations)</p> <p>I feel pretty sure as I have implemented UDL in the past. I am quite acquainted to it. I feel satisfied of myself. Although I would like to participate in a new seminar.</p> <p>I expect to give my students new perspectives, to overcome the barriers posed by the existent curriculum.</p>
<p>49. My reaction (Reaction)</p> <p>I use a variety of methods in order to give equal access to all students and cultivate interaction and cooperation among them.</p>
<p>50. Planning evaluation (Evaluation)</p> <p>I have to keep in mind that my school is not fully equipped as infrastructure is concerned and of course the curriculum, I have to follow it and is not fully in accordance with UDL. So, there is a limitation to what tools I have available. I would also intend to update my knowledge in the future. Another obstacle for me is distance learning, I am not used to it so I prepare my lesson for live teaching, which is also restricted due to covid measures.</p>
<p>51. What would I do differently in a future planning? (Future action)</p> <p>I probably have to claim and insist as a teacher with relevant demands my school to be equipped.</p>

2nd Record (implementation)
<p>86. What is happening? (Description)</p>

I teach Greek literature in third class of lower secondary education implementing UDL. Duration of implementation: 4 teaching hours.
87. How do I feel? (Feelings) I feel satisfied as UDL is a common practice for me. I feel sure implementing UDL and I receive a feeling of completeness as I see that UDL gives to my instruction a positive dimension.
88. My reaction (Reaction) I had to deal with different students, I mean students with a different knowledge background and different needs as well. So, using UDL I handle in a sufficient level the above differentiation.
89. Results (Evaluation) <ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) My students are acquainted enough to UDL as I use it regularly. They responded positively showing interest , participation, cooperation and engagement in comparison with the times I did not used UDL. They had a better performance. ● Foreign students (response-participation, performance, attitudes) My foreign students respond better when I use UDL. I feel that their better performance is a result of the cultivation of intercultural education that I can promote via UDL as they show bigger interest, participation, cooperation and a better performance. ● Students with special needs/disability (response - participation, performance, attitudes) Accordingly, my students with special needs show a better performance. They feel more confident to participate and they really gain more through the variety of teaching methods I use. They show interest as well. ● Foreign students with special needs/disability (response - participation, performance, attitudes) There are two students of this category in my class. As the other students, they are fully integrated. I mean they do not feel different from the others and they try as much as they can.
90. What would I do differently in a future planning? (Future action) As I pointed out, I would demand more infrastructures for my school.

PARTICIPANT 19

1st Record (planning)
52. What is happening? (Description) I will be teaching the German unit "ordering in a restaurant" in the third class of a gymnasium having decided to apply the universal design for learning and adapt the lesson accordingly.
53. How do I feel? What do I expect? (Feelings/Expectations) I feel anxious if I will have time to teach what I have planned. I also feel satisfied of my attempt and effort. I expect to gain my students' interest and participation to the greatest extent possible.
54. My reaction (Reaction) I will use multiple media such as book, CD player, pictures of food, drinks and beverages as well as the board.
55. Planning evaluation (Evaluation)

I spent a lot of time planning the course as I wanted to incorporate the use of multiple media into my teaching and I am not acquainted to it neither I am qualified. The curriculum and the lack in educational tools is also a factor that creates an extra difficulty to me as well as. Due to the measures for covid, I intend to implement my plan in distance learning and this is also difficult for me as it is sth new.

56. What would I do differently in a future planning? (Future action)

Since the topic I chose to apply the universal design for learning is "ordering in a restaurant", I would implement it in live teaching and I could have given to children easy German recipes, made some of them and in the next lesson brought them to class. Thus, an experiential role play would take place, but due to the restrictive measures of COVID-19 it is not possible.

2nd Record (implementation)

91. What is happening? (Description)

Teaching with multiple presentation media (audio, text, pictures, board, role play).

92. How do I feel? (Feelings)

Satisfied to an extent, I could have managed the time a bit better, revised vocabulary and better consolidation.

93. My reaction (Reaction)

There was not enough time to teach everything I had planned. We did not do two activities that I had planned to do from the workbook. I also had a hard time keeping all the students interested, as some had quite a bit of difficulty with vocabulary and lost interest easily. I think that this happened due to my inexperience in distance learning and UDL.

94. Results (Evaluation)

- Total students (response - participation, performance, attitudes)
The majority of students responded positively by learning expressions and vocabulary related to the subject they were taught, as well as several cultural elements. The students showed interest and willingness to participate.
- Foreign students (response-participation, performance, attitudes)
Student 1: in general, he shown interest but about halfway through the lesson he lost interest because he had difficulty understanding the text (I hadn't thought of a possible solution). To one point, however, I think he was helped by the use of images. He participated as much as he could.
- Students with special needs/disability (response - participation, performance, attitudes)
Student 1: Positive response, because in this particular lesson there were many changes in the means of engagement and oral activities prevailed over written ones, which I think helped this particular student. Positive interest and participation.
- Foreign students with special needs/disability (response - participation, performance, attitudes)
There is not such a student.

<p>95. What would I do differently in a future planning? (Future action)</p> <p>If I were in a classroom and there was an interactive whiteboard (there is one throughout the school with 15 classes) I would show a related video and have a discussion with my students, I will ask them to find similarities and differences between the two cultures. Also, in the last ten minutes of the lesson there would be group work (per 4 people), which was not possible due to the measures. I would implement my plan in live teaching.</p>		
<p>NOTES:</p> <table border="1"> <tr> <td>The teacher applied UDL for the first time.</td> </tr> <tr> <td>He has no relevant training.</td> </tr> </table>	The teacher applied UDL for the first time.	He has no relevant training.
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PARTICIPANT 20

<p>1st Record (planning)</p>
<p>57. What is happening? (Description)</p> <p>I am preparing the lesson plan for Social and Political Education in 3rd class of a gymnasium on the topic of racism according to the principles of Universal Design for Learning.</p>
<p>58. How do I feel? What do I expect? (Feelings/Expectations)</p> <p>Impatience. I want to implement the plan and see the children's response. I feel a bit stressed for the results.</p> <p>I expect that my students will show more interest compared to the implementation of a conventional teaching, they will cooperate, possibly even revise attitudes and have better performance, I mean understanding of the cognitive object.</p>
<p>59. My reaction (Reaction)</p> <p>I plan the teaching taking into account the needs and special characteristics of all students, whom I already know well as I had them last year as well. I try to ensure the required flexibility in terms of material and expression activities. I also incorporate experiential activities.</p>
<p>60. Planning evaluation (Evaluation)</p> <p>It takes more time on my part than planning a traditional lesson. I do not have probably the qualifications, I mean I did not participate in relevant training, the curriculum also prohibits me of using some practices or tools I have in mind. Also, I will have to arrange some practical issues, namely moving the children to a larger classroom where there will also be a projector. Consultation with the school management is required given the state of emergency and the restrictions imposed by health measures due to the corona virus. I cannot schedule a plan for distance learning, it seems harder to me.</p>
<p>61. What would I do differently in a future planning? (Future action)</p> <p>Possibly I would limit the visual material (video) but I am not sure, I will decide it in the application.</p>

2nd Record (implementation)
<p>96. What is happening? (Description)</p> <p>I implement the teaching plan according to UDL.</p>
<p>97. How do I feel? (Feelings)</p> <p>Satisfaction with myself but also with children's' presence and response.</p>
<p>98. My reaction (Reaction)</p> <p>Valuable time was lost due to students moving to a different room. The factors I thought about during planning were a difficulty in implementation.</p>
<p>99. Results (Evaluation)</p> <ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) <p>As a whole, the students showed strong interest and participation. All expressed themselves either through discussion or through experiential and other activities.</p> <ul style="list-style-type: none"> ● Foreign students (response-participation, performance, attitudes) <p>The department has two foreign students who felt more comfortable with this way of teaching and participated more. More interest. Better performance.</p> <ul style="list-style-type: none"> ● Students with special needs/disability (response - participation, performance, attitudes) <p>A student on the autism spectrum with communication difficulties and elements of aggression also studies in the department. The use of audiovisual material was instrumental in her case in stimulating and sustaining her interest but the experiential exercises also ensured her participation. Positive interest and participation.</p> <ul style="list-style-type: none"> ● Foreign students with special needs/disability (response - participation, performance, attitudes) <p>There are no foreign students in the department with special educational needs identified by a special organization or teacher.</p>
<p>100. What would I do differently in a future planning? (Future action)</p> <p>Given the impossibility of having a classroom equipped with the required means and infrastructure (projector, spaciousness) I would ensure that the students were in the class room that was used and had the required features throughout the day and not just for the two hours of my teaching during which valuable time was lost due to their movement from room to room.</p>
<p>NOTES:</p> <p>The teacher applied UDL for the first time.</p>

He has no relevant training.

PARTICIPANT 21

1st Record (planning)
62. What is happening? (Description) I plan my teaching according to UDL. Specifically, I am preparing a lesson plan (4 teaching hours) for the Modern Greek language course in the 2nd class of a gymnasium in the "Structure and development of paragraphs" section.
63. How do I feel? What do I expect? (Feelings/Expectations) I feel personally satisfied and anxious to see the implementation of the plan and its effect on the students. I expect that my teaching will stimulate the students and they themselves will perform better.
64. My reaction (Reaction) I try to include in my teaching plan practices and means that respond to the context of the UDL and therefore I will try to address to all my students.
65. Planning evaluation (Evaluation) This is the first time I am planning my teaching based on UDL, so my unfamiliarity requires more planning time. Also, the implementation of UDL requires flexible Curricula and I try to implement a philosophy based on the existing closed Curricula. Finally, the classroom in which I teach does not have modern equipment such as an interactive whiteboard (not even a projector) and therefore I will have to find a solution as I adopt these means in teaching based on UDL. Finally, I take into account the special measures for covid which function as a restricting factor to me. I did not choose distance learning for implementation as I am not familiar to it.
66. What would I do differently in a future planning? (Future action) I would try to rely less on the use of technological means such as the interactive whiteboard.

2nd Record (implementation)
101. What is happening? (Description) I apply the teaching scenario in 4 hours in the Modern Greek Language course in the 2nd class of a gymnasium, based on UDL.
102. How do I feel? (Feelings) Great satisfaction that I was able to apply UDL without having relevant prior experience and joy for the response of my students. However, at the same time, I also feel a sense of bitterness as I don't think I could devote so much time to planning such lessons on a systematic basis. This is sth stressful for me.
103. My reaction (Reaction) Due to the lack of the required media, we were moved to a classroom with an interactive whiteboard. The change during the first meeting affected the students and some time was lost until they were settled which affected the

flow of teaching and some activities were not implemented due to lack of time. In subsequent meetings there were no problems.

104.Results (Evaluation)

- Total students (response - participation, performance, attitudes)

As a whole, the students saw the changes in terms of the multiple means of presenting information and expressing themselves positively. Even students who were distant in conventional teaching, now showed interest and participated to a very satisfactory degree. They even asked at the end of the lesson to continue the next lesson in this way. They performed better.

- Foreign students (response-participation, performance, attitudes)

Especially for the foreign students, the diversity in the presentation of the information was decisive. They understood the subject taught, they showed interest, participated more and performed better in the activities.

- Students with special needs/disability (response - participation, performance, attitudes)

Accordingly, students with special educational needs also showed interest and responded to a greater extent compared to conventional teaching. Three students with special educational needs study in the department and their performance was better.

- Foreign students with special needs/disability (response - participation, performance, attitudes)

Only one student of foreign origin has special educational needs identified by KEDASY and attends the integration department. During the meetings he remained in class and gave a better image than in the past. He participated and understood the subject matter of teaching.

105.What would I do differently in a future planning? (Future action)

I might choose to implement UDL without the use of an interactive whiteboard due to the lack of equipment in the school where I work.

NOTES:

The teacher applied UDL for the first time.

He has no relevant training.

PARTICIPANT 22

1st Record (planning)

67. What is happening? (Description)

I plan to teach the addition/subtraction of integers for application to students of either 1st gymnasium class or 2nd. Duration of implementation: 1 teaching hour.

68. How do I feel? What do I expect? (Feelings/Expectations)

On the one hand I feel pretty sure and satisfied as I've found a pretty good approach to adding/subtracting integers. On the other hand I feel anxious as I implement UDL for the first time without any special training. I am also stressed as I intend to implement it in distance learning.

I expect to help students become fluent in whole number operations and then if they want to understand the interpretation of the book.
69. My reaction (Reaction) I give a new interpretation to the addition/subtraction of numbers, different from the textbook approach. I do direct examples in the webex board..
70. Planning evaluation (Evaluation) I had to think of this new approach to be more accessible to children. I have also to plan my lesson for a digital environment, sth extremely new for me and my students. The measures for covid, the curriculum, the lack in infrastructure create difficulties for me.
71. What would I do differently in a future planning? (Future action) Maybe I would hand out worksheets to all the students.

2nd Record (implementation)
106.What is happening? (Description) I teach addition/subtraction applying UDL to 2nd high school students.
107.How do I feel? (Feelings) I feel stressed during my plan's implementation probably due to my inexperience on UDL.
108.My reaction (Reaction) I had to deal with some students who struggled due to learning gaps (difficulty adding natural numbers).
109.Results (Evaluation) <ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) The students are impressed with this new approach comparing it with the one they had learned last year. They are now very quick to act. Greater interest. ● Foreign students (response-participation, performance, attitudes) The students are impressed with this new approach comparing it with the one they had learned last year. They are now very quick to act. Greater interest and participation. ● Students with special needs/disability (response - participation, performance, attitudes) In contrast to last year, the students now also do actions. Greater interest and participation. ● Foreign students with special needs/disability (response - participation, performance, attitudes) In contrast to last year, the students now also do actions. Greater interest and participation.
110.What would I do differently in a future planning? (Future action) I wouldn't do anything differently.
NOTES: The teacher applied UDL for the first time. He has no relevant training.

PARTICIPANT 23

1st Record (planning)
<p>72. What is happening? (Description)</p> <p>I plan to teach Greek Language in 1st class of the gymnasium (integral department) implementing UDL.</p>
<p>73. How do I feel? What do I expect? (Feelings/Expectations)</p> <p>I do not feel confident enough, I am a bit stressed because it is not the first time I implement UDL. On the other hand I have a sense of satisfaction because I dedicate time and effort to do sth new. I expect to help my students to be able to learn how to learn, to respect each other and collaborate.</p>
<p>74. My reaction (Reaction)</p> <p>I follow the principles of UDL that means I use methods and techniques that are compatible to UDL.</p>
<p>75. Planning evaluation (Evaluation)</p> <p>It takes me more time to plan my lesson according the principles of UDL than a common lesson. The curriculum, distance learning and the general measures for covid , lack in infrastructure and of course my lack in relevant training make my attempt harder. Due to these difficulties I intend to prepare a lesson for live teaching only because I believe it will be better for my students.</p>
<p>76. What would I do differently in a future planning? (Future action)</p> <p>I would inform my students about UDL because it is not well known to them.</p>

2nd Record (implementation)
<p>111. What is happening? (Description)</p> <p>I teach Greek Language in 1st class of the gymnasium (integral department). Duration of implementation: 3 teaching hours.</p>
<p>112. How do I feel? (Feelings)</p> <p>I feel satisfied as my lesson plan was satisfying. I took into account my students' characteristics and I have planned accordingly the whole process.</p>
<p>113. My reaction (Reaction)</p> <p>I implement methods and techniques according to UDL.</p>
<p>114. Results (Evaluation)</p> <ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) Students have shown interest and willingness to participate and collaborate. They have understood and implemented the new knowledge. Better performance. ● Foreign students (response-participation, performance, attitudes) My foreign students have responded better than in common instruction. They have also shown a bigger interest, collaboration and performance. ● Students with special needs/disability (response - participation, performance, attitudes) They participated more and had better performance. Greater interest. ● Foreign students with special needs/disability (response - participation, performance, attitudes) They have participated more and had better performance. Greater interest.
<p>115. What would I do differently in a future planning? (Future action)</p> <p>I would inform my students about UDL as it is something that they are not familiar to.</p>

NOTES:

The teacher applied UDL for the first time.

He has no relevant training.

PARTICIPANT 24

1st Record (planning)

77. What is happening? (Description)

I plan my teaching so that they can understand and use the perfect division of natural numbers for students of 1st class of a gymnasium. Duration of implementation: 1 teaching hour.

78. How do I feel? What do I expect? (Feelings/Expectations)

Confident and satisfied that I have found a very good approximation of perfect division of natural numbers.

I expect to help students understand and learn to use a very basic tool in mathematics.

79. My reaction (Reaction)

I hand out laminated sheets of a differentiated approach to multiplication and create a worksheet to visualize my approach to division that I hand out to students. At the same time I project the worksheet on a projector or create the lesson on the board.

80. Planning evaluation (Evaluation)

Usually the students I mentioned do not know the basic pre-education (knowledge that they should acquire in elementary school) or they have not connected it to the concept of division, so distaste has been created for the subject of division and mathematics in general. Also, some general factors function as a difficulty to me like the measures for covid, the curriculum, the lack in infrastructure. The fact that I do not have any special training in UDL is an extra difficulty and probably the reason I have to dedicate more time than usual to prepare my lesson.

81. What would I do differently in a future planning? (Future action)

I would ask the students in previous lessons to even parrot the multiplication table.

2nd Record (implementation)

116. What is happening? (Description)

I teach division by applying UDL to a 1st class of a gymnasium but without using a projector.

117. How do I feel? (Feelings)

I get personal satisfaction from seeing the response of my apprentices.

118. My reaction (Reaction)

I had to handle the anxiety of "bad" students when I announced to them the lesson I will teach and the indifference of "good" students as they thought that they knew the subject and no further material was necessary.

119. Results (Evaluation)

<ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) Students see a new approach to division. More interest. ● Foreign students (response-participation, performance, attitudes) Students see a new approach to division. More interest and participation, better performance. ● Students with special needs/disability (response - participation, performance, attitudes) Students see a new approach to division that helps them get the act right, which gives them satisfaction and gives them the confidence to know they can do it . more interest and participation. ● Foreign students with special needs/disability (response - participation, performance, attitudes) Students see a new approach to division that helps them get the act right, which gives them satisfaction and gives them the confidence to know they can do it. More interest and participation. 		
<p>120. What would I do differently in a future planning? (Future action)</p> <p>I wouldn't do anything differently.</p>		
<p>NOTES:</p> <table border="1"> <tr> <td>The teacher applied UDL for the first time.</td> </tr> <tr> <td>He has no relevant training.</td> </tr> </table>	The teacher applied UDL for the first time.	He has no relevant training.
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PARTICIPANT 25

<p>1st Record (planning)</p>
<p>82. What is happening? (Description)</p> <p>I plan to teach Literature in 2nd class of a gymnasium implementing UDL.</p>
<p>83. How do I feel? What do I expect? (Feelings/Expectations)</p> <p>I feel very anxious and unconfident as I have never used UDL before. At the same time I am satisfied for myself as I try sth new without having relevant training and experience. I expect to help my students to have a better performance, to understand in depth the teaching subject.</p>
<p>40. My reaction (Reaction)</p> <p>I am trying to follow the principles of UDL using relevant methods and techniques.</p>
<p>41. Planning evaluation (Evaluation)</p> <p>It takes me more time and effort to plan my lesson as I am not familiar to it. Also I have to follow a curriculum that is not fully in accordance with UDL and take into account the lack in infrastructure and the special conditions due to covid 19. I will plan a lesson for distance learning as my students are not show interest and engagement in such an environment and it is a real challenge for me to try UDL in this context.</p>
<p>42. What would I do differently in a future planning? (Future action)</p> <p>I would try to have more variety in tasks. As it is my first time I cannot think about more solutions to possible barriers or alternatives.</p>

2nd Record (implementation)		
<p>121.What is happening? (Description)</p> <p>I teach Literature in the 2nd class of a gymnasium implementing UDL. Duration: 4 teaching hours.</p>		
<p>122.How do I feel? (Feelings)</p> <p>I feel satisfied as my lesson plan met the initial goals. But I feel a bit tired too as the anxiety and the whole preparation put a pressure on me. I also feel stressed for a future implementation.</p>		
<p>123.My reaction (Reaction)</p> <p>I implemented methods and techniques according to UDL and always on the context of the curriculum. I use a variety of tools not only the book. Distance learning does not function as well as live teaching for students probably due to the fact they are not mature enough.</p>		
<p>124.Results (Evaluation)</p> <ul style="list-style-type: none"> ● Total students (response - participation, performance, attitudes) My students have shown more interest and willingness to participate. They have understood the new knowledge and they have a mutual cooperation. More interest . Better performance. ● Foreign students (response-participation, performance, attitudes) My foreign students have responded better than in common instruction. They have shown a greater interest and participation. ● Students with special needs/disability (response - participation, performance, attitudes) My students with special needs have shown interest and they have managed to participate more. ● Foreign students with special needs/disability (response - participation, performance, attitudes) My students, three in number, were extremely helped by UDL. They have shown interest for the first time and the have understood the teaching subject. They have also shown willingness to participate more in group tasks. 		
<p>125.What would I do differently in a future planning? (Future action)</p> <p>I would try to use a bigger variety of tasks of graded difficulty.</p>		
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