



Thesis

**Teacher Professional Development
through a Learning Organization
“PISGAH Program for Principals within
a School Framework”: A Multilevel
Analysis Using the Internal Coherence
Framework**

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TITULO: *Teacher Professional Development through a Learning Organization
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Anat Hilel

Table of Contents

Summary	1
Introduction	5
Section 1. Theoretical Framework	25
CHAPTER 1. Theoretical and models perspectives	25
1.1.1 THE INTERNAL COHERENCE MODEL.....	26
1.1.2. TEACHER PROFESSIONAL DEVELOPMENT [TPD]	41
1.1.3 PROFESSIONAL LEARNING COMMUNITY	49
1.1.4 CHAPTER SUMMARY	58
CHAPTER 2. Teachers’ level: Factors that predict TPD	60
1.2.1 TEACHERS’ PROFESSIONAL IDENTITY.....	60
1.2.2 TEACHERS’ SELF-EFFICACY	64
1.2.3 THE ROLES OF TEACHERS IN AN EDUCATIONAL INSTITUTION. 68	
1.2.4 TEACHER LEADERSHIP IN THE CLASSROOM	72
1.2.5 CHAPTER SUMMARY	78
CHAPTER 3. Principals’ level: Factors that predict TPD.....	80
1.3.1 PSYCHOLOGICAL EMPOWERMENT IN ORGANIZATIONS	80
1.3.2 THE SELF-EFFICACY OF THE SCHOOL PRINCIPAL	85
1.3.3 LEARNING ORGANIZATIONS.....	87
1.3.4 POSITIVE ORGANIZATION PSYCHOLOGY.....	91
1.3.5 PSYCHOLOGICAL WELL-BEING.....	99
1.3.6 PSYCHOLOGICAL CAPITAL.....	103
1.3.7 CHAPTER SUMMARY	105
CHAPTER 4. School Principal’s Leadership	107
1.4.1 EVOLUTION OF LEADERSHIP	110
1.4.2 TYPES OF LEADERSHIP	110
1.4.3 CHAPTER SUMMARY	118
SECTION 2: RESEARCH OBJECTIVES AND HYPOTHESES	
2.1. Context of research	122
2.2. OBJECTIVES AND RESEARCH HYPOTHESES	123
Section 3. Methodology	
3.1. RESEARCH DESIGN	131
3.2. SAMPLE DESCRIPTION	132
3.3. IDENTIFICATION AND OPERATIONALIZATION OF VARIABLES .	135

3.4. PROCEDURE	142
3.5. DATA ANALYSIS	143
3.6. ETHICAL CONSIDERATIONS	144
Section 4. Results of the Research	
STUDY 1. RESULTS OF THE EMPIRICAL RESEARCH. TEACHER LEVEL	147
STUDY 2. RESULTS OF THE EMPIRICAL RESEARCH: PRINCIPAL LEVEL	161
STUDY 3. RESULTS OF THE HIERARCHIAL LINEAR MODEL	169
Section 5. Discussion, Conclusion, Limitation and Future line of research .	
5.1 The Results of the Teacher Level Analysis.....	173
5.2 The Results of the Principal Level Analysis	178
5.3 The Results of the HLM Analysis.....	180
5.4. Conclusion	182
5.5 Limitation.....	183
5.6 Future line of research.....	183
REFERENCES.....	186
APPENDICES	221
APPENDIX 1- The Chief Scientist of the Ministry of Education in Israel	222
APPENDIX 2- Teachers' questionnaires	223
APPENDIX 3- Principals' questionnaires.....	233
APPENDIX 4- PISGAH learning Organization Program (LOP)	241

LIST OF TABLES

Table 1. *Structure of the dissertation.*

Table 2. *Main characteristics of the study sample.*

Table 3. *Main characteristics of the study sample (continued).*

Table 4. *Summary of measures used at the teacher's level and their reliabilities.*

Table 5 *Summary of measures used at the principal's level and their reliabilities.*

Table 6. *Means, standard deviations, and ranges: The Perceptions of principal's transformation leadership patterns scale.*

Table 7. *Means, standard deviations, and ranges: The Professional learning community scale.*

Table 8. *Means, standard deviations, and ranges: Self-Efficacy scale.*

Table 9. *Means, standard deviations, and ranges: Professional Identity scale.*

Table 10. *Means, standard deviations, and ranges: Teacher professional development (TPD) scale.*

Table 11. *Differences at TPD by the demographic characteristics.*

Table 12. *Pearson correlation between the study variables.*

Table 13. *Summary of the regression model for TDP prediction.*

Table 14. *Means, standard deviations, and ranges: Psychological empowerment.*

Table 15. *Means, standard deviations, and ranges: Professional Self-Efficacy.*

Table 16. *Means, standard deviations, and ranges: Professional Self-Efficacy (continued).*

Table 17. *Means, standard deviations, and ranges for the principals' study variables: Implementation of the PISGAH "learning organization program".*

Table 18. *Differences at average TPD by the principles' demographic characteristics.*

Table 19. *Pearson correlation between the core variables.*

Table 20. *Standardized and unstandardized coefficients for predicting TPD using teachers and principles' variables.*

LIST OF FIGURES

- Figure 1. *PISGAH centres throughout the entire country.*
- Figure 2. *The Internal Coherence Assessment and Protocol (ICAP).*
- Figure 3. *Definitions of Leadership.*
- Figure 4. *Healthy & Resilient Organization (HERO) Model.*
- Figure 5. *Historical Background of the Definition of Well-Being.*
- Figure 6. *The Structure of Psychological Welfare - Being Reborn.*
- Figure 7. *Psychological Capital and Beyond.*
- Figure 8. *School Principal's Leadership.*
- Figure 9. *A Multilevel Analysis of Teachers' Professional Development.*
- Figure 10. *Timeline of data collection.*
- Figure 11. *Main variables: Box-and-whisker graph.*
- Figure 12. *Dependent variable. Teacher's professional development: Box-and-whisker graph.*
- Figure 13. *Summary of the associations between teacher and principal level variables with TPD.*

Summary

Introduction

In the last decade, the demands and expectations for better quality teaching and learning have been receiving more emphasis and attention from policymakers, education researchers, and school leaders. Teachers' Professional Development (TPD), which can be defined as "activities that develop an individual's skills, knowledge, expertise and other characteristics as a teacher" (OECD, 2017), is perceived to be a key factor in increasing the quality of teachers and advancing the education system. Thus, enabling teachers to learn within the school system, and to receive training that is tailored to their needs is of great importance.

Several factors at the teacher and school level can be identified as important predictors of TPD. Studies refer to teachers' self-efficacy beliefs as a significant component that contribute to the acquisition of new knowledge, better skills, and training. Moreover, studies point to teachers' professional identity as having a major impact on their development. Furthermore, professional learning communities can also promote TPD since they serve as a place for teachers to share experiences, innovations, content, and problem solving, and to develop competencies within the school framework. Another important factor in cultivating TPD is the principal's leadership style. More specifically, a transformational leadership style encourages teachers to raise their quality of teaching and is also associated with improving teachers' self-efficacy, motivation, and commitment, as well as their cooperative professional development. In addition, the principal's self-efficacy beliefs and psychological empowerment may also positively affect TPD,

since both of these predictors are associated with the principal's ability to impact and create desirable outcomes at the school level.

In order to promote the quality and level of teaching in schools, the Israeli Ministry of Education established the PISGAH centres for the delivery and execution of teachers' professional development programs. In addition, the PISGAH centres employ a learning organization program to support school principals in the making of informed decisions concerning the development of the school's teaching staff, by providing ongoing detailed TPD status reports for each school. Thus far, no study in Israel has investigated the role of the abovementioned factors in predicting TPD.

Objectives

The present study main objective was to examine the factors that are associated with TPD both at the individual level of the teacher and the wider level of the school. Specifically, we aimed to examine how the teachers' self-efficacy, professional identity, level of participation in the school's professional learning communities, and their perceptions of the principal's transformational leadership patterns affect their professional development. In addition, we aimed to examine how the principals' empowerment and professional self-efficacy influence the TPD of the school's teachers and how their level of participation in the PISGAH "Learning Organization Program" (LOP) impacts the TPD of the school's teachers.

Methodology

A cross-sectional study design was conducted. The study sample included 36 principals and 412 teachers that were randomly selected from all Israel state elementary schools during the school year of 2020/2021. The conceptual framework involved variables at two levels: At the teacher level, the present study used the measures of TPD, teachers' self-efficacy, professional learning community, and the teachers' perceptions of the principal's transformational leadership patterns, which were adopted from the internal coherence assessment protocol (ICAP) framework (Elmore et al., 2014). At the principal level, the measures of principals' self-efficacy, psychological empowerment, and level of participation in PISGAH learning organization program were employed. First, the data were analyzed separately for teachers and principals to examine each level's associations with TPD, after which were consolidated to conduct Multi-Level Modelling (HLM) analysis to assess the effects of the principal level on the teacher level.

Results

The separate analysis at the teacher level revealed that higher perceptions of principals' transformation leadership patterns ($\beta = .28, p < .05$), professional learning communities ($\beta = .24, p < .05$) and self-efficacy ($\beta = .23, p < .05$) predicted TPD. At the principal level, none of the tested variables were found to be associated with TPD. The consolidated HLM analysis showed that higher perceptions of principal's transformation leadership patterns ($\beta = .44, p < .05$), and higher teacher self-efficacy ($\beta = .33, p < .05$), were positively correlated with TPD. In addition, the principal's professional self-efficacy was also positively correlated with TPD (β

= .13, $p < .05$). Variables in the model explained about 76% of the total variance in TPD.

Conclusions

The results of the present study attest to the importance of the principal's leadership in predicting TPD and reinforce the key role of the principal's leadership in cultivating a learning organization and developing the professionalism of the schoolteachers. Senge (1990) emphasizes the importance of both individual and organizational learning for the growth of an organization. As a result, such learning necessitates a setting that encourages independent thinking, new ideas, and continuous learning. A learning organization can become more flexible, adaptive, and productive, allowing it to perform exceptionally well in a competitive world.

Furthermore, the teacher's self-efficacy and the professional self-efficacy of the principal were also found to be important predictors of TPD. Overall, the findings of this study serve as an analysis of the current scope of teachers' professional development in Israel and suggest the principal's and teacher's roles in the ecosystem of improving the educational system. Finally, limitations of the present research were presented, and future research directions were suggested.

Introduction

This paper serves as an analysis of the current scope of teachers' professional development in Israel and ultimately suggests the principal's and teacher's roles in the ecosystem of improving the educational system. The school framework, among other factors, could be further improved as this introspective analysis aims to demonstrate.

RESEARCH JUSTIFICATION

In the reality of many accelerated changes, learning and teaching are not what they used to be neither for students nor the teaching staff. Demographic, technological, economic, and political changes, as well as global shifts and trends, all created new challenges in education.

Twenty-first-century schools grapple with a diverse range of complex challenges, such as implementing technology, classroom management, and improving learners' achievements. Teachers' roles posit them at the centre of many of these challenges. They possess direct contact with students within the school setting, as well as considerable control over what and how knowledge is taught. The teacher, therefore, should be a major focus when coming to meet these challenges (Brown, 2019).

Over the last decade, an understanding has been established that the professional development of teaching staff is the key to the advancement of

education systems (Liu & Liao, 2019). Teacher professional development (TPD), as in any other profession with a developing field of knowledge, is fundamental. The teaching profession requires expertise, being continually up-to-date in various fields, and lifelong learning (Tenekeci & Uzunboylu, 2020).

The main goal of the Israel Ministry of Education is to create meaningful learning through quality teaching. Optimal professional development is a key to the quality of an educational system. Such professional development, which emphasizes the connection between practice and theory, must be continuous. This is a complex task, as teaching work is dynamic and contains many fields of knowledge, pedagogy, methods, generic educational aspects, and dealing with students' demands.

Teachers and students both share the need for learning and development. Providing teachers with the ability to learn and teach topics that interest them, also acts as an incentive that increases their professional development. Thus, increasing teachers' professional development not only contributes to the quality of the educational system but also strengthens the connection with the teaching profession itself.

Professional development deals with the development and cultivation of the teacher's knowledge, skills, role perception, and self-efficacy. Optimal professional development connects the needs of the individual and the needs of the organization. It helps teachers to better understand and define the dilemmas and issues they face

and gives them a wide-ranging set of tools so that they can exercise their judgment in the classroom and assist their students in the learning process.

The optimal professional development process is structured, systematic, and ongoing, combining the teacher's knowledge, optimal teaching practices, and research knowledge. Effective professional development as organizational culture is conditional on common systemic actions founded on value-based, conceptual, and structural communication of all the mechanisms and factors involved in the professional development of teaching staff.

The professional development processes of teachers that take place within the school walls enable members of the educational staff to grow professionally, while also contributing to the advancement of their educational work. This professional development is carried out under the leadership of the school principal in collaboration with the educational staff and experts from a variety of fields. They are tasked with providing an environment in which productive learning can take place. Researchers and practitioners have long recognized that the role of the principal is crucial for school improvement (Ghasemiyani & Jafari, 2019). They help create an opportunity for the empowerment of the educational staff and the development of the school as a learning organization (Collinson, 2012).

The TDP process is built simultaneously using four systems divided into several levels (Avdor, 2015). TPD can be defined as "the natural process of professional growth in which a teacher steadily acquires self-assurance and confidence, gains new perspectives, acquires more expertise, discovers new

techniques, and takes on new roles” (Mwihaki & Josphat, 2019, p. 35). The most senior system-level comprises the policymakers who outline the nature and trajectory of teacher professional development. This level is expressed, for example, through policy reports that shape the proper process of teacher professional development (Avidov-Ungar & Reingold, 2018).

A second system for TPD includes the PISGAH Centres and their learning organization program, an initiative by the Israel Ministry of Education, which works within a school framework to help promote teachers’ professional advancement. Between the years 2005–2015, 58 PISGAH Centers had been established and by 2021, 64 PISGAH Centers were covering the entire country (see Figure 1).

Early in the 1970s, the Ministry of Education understood the necessity of transforming the teaching profession into an academic career that is being taught at academic colleges and universities. PISGAH Centres were established specifically for aiding teachers’ educational process. Hence, teacher seminars were changed into academic institutes. Yet, this complex transformation was carefully monitored by the Ministry with a set of parameters, to preserve its control over the changing process.

This method led to the traditionalist debate between the terms ‘academization’/‘universalization’ versus ‘humanization’. The concepts were conflicting with one another and founded on an opposing basis. This enabled the Ministry to make claims that teaching trainee teachers were very different compared

to teaching for other professions because of their unique humanistic aspects. They proposed that in order to develop the humanistic side of training teachers, separate 'teacher training colleges' were needed to be established. To put it another way, the ministry's goal - ongoing dominance over college - was hidden in this 'humanistic' talk that universities were missing more of a humanistic perspective. The outcome of this policy was a dragged out 30 years which yielded poor results and finally led to the 'Dovrat' critique which implies that teacher training colleges should be established as an academic entity or put to an end.

Israeli public academic institutions are financed and accredited by the Council of Higher Education (CHE) therefore they are set apart from the more common higher education system. Though the Ministry of Education and the CHE have come to a consensus since the 1980s that teacher training is within the sector of higher education, however, they have been unsuccessful in its complete integration. The direct collaboration of the Ministry makes these colleges deviate from the higher learning institutions. Whereas the Ministry refers to teachers' professional training with great importance as having significant assets that influence its academic management and budgeting; in the point of view of the CHE Planning and Budgeting Committee, the opinions of education colleges are unnoticed in official public reports concerning academia.

The Israeli teacher system is not fully incorporated into the university sector and fails to create better linkages with it, even though it seems to be somewhere academic. In the past decade, there has been a huge growth of overall colleges, which can teach different professions but lack better training for prospective

teachers. Therefore, the segregation is mostly from the mainstream of higher education, this has made the Israeli teacher training system more of a sector on its own and has no advantages to be gained from its situation.

The Israeli teacher training has experienced a revolution in the past 30 years. Since the mid-80s, all teachers needed to attend a university or an academic college of education to have a bachelor's degree and a teacher's license, this transformed the teaching profession to be academic. Even Though this type of process is involved, the teaching profession has not yet established itself as an academic field as reflected by public opinions, including teachers themselves.

Much effort has been put into the teachers' training program. At Least 90% of teachers in Israel get their training at designated colleges of education while the remaining percentage get trained from universities that provide them with teacher certificates applicable for teaching in high schools (Avidov-Ungar, 2019).

In 2003, a new policy was introduced, and teachers needed to finish their first year of teaching before they could get a teaching license. Teaching education takes place in universities or colleges of education. Teacher education in colleges incorporates disciplinary and pedagogical content, mostly in a four-year program (110-115 hours a year, that includes one-year induction), and results in a bachelor's degree in education and a certificate to teach at either primary or secondary levels. The training offered in universities is mostly specific to the secondary teaching level.

In order to obtain an education license including a teaching certificate, an academic degree, and successful completion of the induction year. From 2006, the pedagogical component of teacher education programs was extended to 24 to 30 hours yearly and comprises education studies, pedagogical studies, research methodology including a supervised practicum. The pedagogical component has about 60 hours of disciplinary studies each year.

In the late 1950s, pedagogical centres were established throughout Israel. These pedagogical centres were an instrument for disseminating the Ministry of Education's goals and programs from its central units to local districts and other educational institutions. In addition, they were used to develop and disseminate educational and technological means, and in some cases were offered training courses for teaching staff. Teacher centres were budgeted and set up by the Ministry of Education and were associated with higher education institutions.

The Ministry of Education and Culture decided in the early 2000s to conduct a reform in teachers' training. As such, teaching staff training was established and pedagogical centres were closed. In the years 2002-03, the Ministry of Education opened PISGAH centres specifically aimed at the development of the teaching staff (individual centres are also referred to as Pishgah). PISGAH is an acronym for the Hebrew word that translates as 'teaching staff development' but is also a word in Hebrew meaning summit or zenith, reflecting the high aspirations of the Ministry of Education when developing these centres.

In Israel, some centres operate under the auspices of the Ministry of Education's Department for Teaching Staff Development, called PISGAH Centers derived from the Hebrew acronym. These centres' responsibility is to execute the delivery of professional development programs to teachers (Ministry of Education, 2007). The department's responsibility is to formulate the policy for professional development, guide and assist PISGAH centres in fulfilling their mission, the management and supervision the centres, and operating learning frameworks for the staff in the centres. A team from the PISGAH Center and the Department for Teaching Staff Development carries out the supervision and control of the centres.

These PISGAH Centres are flexible pedagogical organizational structures designed to meet the development and professional advancement needs of teaching staff in accordance with the Ministry of Education's requirements of educational institutions, municipalities, district priorities, and educational flags while maximizing resources. Pisgah Centres are a regional institution for the development and empowerment of teaching staff throughout their professional careers, by combining national systemic goals according to specific, local conditions. The Regional PISGAH Centres operate in line with up-to-date concepts and knowledge in a variety of action frameworks.

In line with achieving these goals, local PISGAH Centers offer training courses, seminars, meetings with teachers, discussion groups, and guidance. These activities are directed by a staff of academic professionals and pedagogic counsellors. The implementations of these activities; training courses and learning programs are conducted throughout the country. It also includes in-depth

professional knowledge of materials of educational nature that teachers transmit. The training courses make use of a wide variety of teaching and learning tools aside from books. These include a didactic database, educational games, and videos. Additionally, PISGAH Centres offer after-hours ongoing guidance and advice to teachers, such as observation in the field, for the development and empowerment of the teachers (Gutman, 2011).

The PISGAH Centres aim to develop and empower teaching staff throughout their professional careers, by adapting national systemic goals to specific local conditions. The PISGAH Centres' learning organization program views the school as a supportive and conceptual framework that enables the professional development of its teaching staff. Its pedagogical teams refer to schools as learning organizations in which human capital is continually being enriched. They encourage the initiation and development of models and learning frameworks for the development of in-house professional organizations. Thus, the PISGAH, a professional development framework that focuses on the development of teaching staff and academic institutions, emphasizes the efficiency and effectiveness of the professional development processes for teachers (Sperling, 2017).

Our study focuses on elementary schools located in the five districts of Israel (Jerusalem, Tel Aviv, Central, Haifa, North) and belonging to the PISGAH Centres. As an external organizer, the PISGAH Centres play a key role in policy development regarding professional advancement and implementation in a learning organization program in schools, as it helps to map the unique needs of each school

while building tailored professional development program for the staff. This type of model also allows for a long-term follow-up and support, unlike out-of-school training courses, which are essentially time-limited and focused on one subject and are attended by teachers from different backgrounds.

Figure 1.

PISGAH Centres throughout the entire country.



Source: <https://bit.ly/3s7OF4O>

This study aims to examine the factors that promote TPD within the school setting through an IC model. Under the PISGAH Centre framework, TPD is led by the school principal in collaboration with the educational team and with assistance from the Centre's Learning Organization Program. The latter offers the educational staff the opportunity to empower itself and the school, and the opportunity to develop as a learning organization.

The school is a central place for the most significant professional development for teachers, while constantly ensuring the fostering of a professional culture. The ongoing gathering and mapping of data regarding existing human resources allows for the identification of individual and organizational needs relating to human capital over different time frames, and fosters accompaniment, counselling and direction of teachers' careers, such as assisting teachers in identifying the professional development framework appropriate for their needs, keeping a database used in appointment processes, and managing the individual's and organization's pedagogical knowledge.

The current study may provide reliable data for school leaders and decision-makers to use regarding their team performances. It may also contribute to implementing a variety of activities for the improvement of professional development processes both in and out of the school, and better comprehension and improvement of the organizational mechanisms.

The Learning Organization Program will be operationalized by evaluating the implementation level of the PISGAH Learning Organization Program.

In Israel, TPD is conducted under the leadership of the principals, in collaboration with and the assistance of the PISGAH Learning Organization Program, supported by the Ministry of Education. This program is designed to both encourage the empowerment of the educational staff and develop the school as a learning organization. The PISGAH Learning Organization Program (see Appendix 4) emphasizes the mapping of teachers' characteristics (e.g., seniority, role, areas of ongoing learning and professional development) and makes it accessible, so that the principals can make use of it to determine the appropriate areas for teachers' professional development and evaluate it.

The PISGAH Centers provide detailed TPD status reports that enable the principal to make informed decisions concerning the development of the school's teaching staff. However, the PISGAH learning Organization Program (LOP) is not fully and uniformly implemented by all principals affiliated with each centre, and there is a need to examine its impact on TPD as a function of the degree to which it is implemented by the principal.

The picture of a learning organization: The school picture the creation of the pedagogical staff's professional profile, updated annually. The main aim of the picture of a learning organization is creation of a picture of quality professional development in schools.

The aims of implementation of a picture of a learning organization among principals: To be of value for the principals in planning and implementing quality teachers' professional development, Implementation of quality programs for teachers' professional development, PISGAH programs will be suitable for school-based programs and the entire system.

Central questions for the principal in the discourse with PISGAH heads:

- What do you wish to achieve in the school's professional development?
- What are the aims of the professional development program?
- How can PISGAH Centers become valuable for the school as they help it achieve its aims?
- What abilities are necessary for the development of quality teaching in light of these aims?
- What are the gaps between the existing situation and the one hoped for?

The characteristics of a picture of a learning organization:

The professional development is uniquely suited to each school, based on its needs (professional development programs are based on school aims), The professional development is done in the school, The school undergoes an annual professional development process, Joint staff learning with the principal's presence.

The professional development is accompanied by the PISGAH Center at all stages: from planning based on school context, through development and implementation, all the way to learning from the process, improvement and re-implementation.

It seems that PISGAH Centers provide a quality relevant response to teachers' and principals' professional development needs. They formulate a program based on the accepted principles for teachers' development and place it within the unique school context. Implementation of the picture of a learning organization contributes to the staff's personal and organizational empowerment, as well as that of the principal as a pedagogical leader.

The PISGAH Center, as an external body, has a central role in leading professional development policy and its implementation in schools, as it assists in mapping each school's unique needs and constructing a professional development model uniquely suited to its staff. PISGAH Centers promote processes aiming at the development and implementation of optimal practices re- teachers' professional development. These practices are unique as they are implemented within the schools, led by both PISGAH and school staff, in an effort to provide a unique response to the schools' specific contexts, with the aim of changing the way principals view teachers' professional development.

A condition of the existence of effective professional development is the cooperation of different stakeholders, including first and foremost the school staff headed by the principal, as well as PISGAH staff and other officials, such as those representing the local authorities, the Ministry of Education, etc. This communication among the different mechanisms and elements reflects joint system-wide action. The picture of a learning organization reflected by PISGAH Centers provides a relevant quality response to teachers' professional development

needs, through which they form a plan based on accepted principles of teachers' professional development, situating it within the unique school context, thus encouraging the staff's personal and organizational empowerment, as well as that of the principal as a pedagogical leader.

The picture of a learning organization assists the principal in his work re-professional development:

Professional strengths and weaknesses at the staff and organizational level, Action mechanisms, School routines, Professional development frameworks in and out of school over time, Observation of the last three years when the staff engaged in professional development within the school, Topics to be focused on in next year's professional development, The unique preferred structure for staff professional development – internal/external leader, morning/after school hours, individual guidance, etc.

PISGAH head and principal: The practice of creating school-based organizational learning Filling-in online questionnaires regarding the picture of a learning organization Collecting data by the PISGAH Center. Data analysis and processing by the PISGAH Center and handing them to the principal.

A professional discourse with the principal regarding the picture of a learning organization data (mapping of individual and organizational needs).

Joint reflection of a unique effective quality professional development process. Accompanying the school in constructing a three-year professional development plan based on this mapping.

Despite the great importance of TPD within the school system, concerning teachers' needs, to the best of our knowledge, no multilevel research has been conducted in Israel examining the factors at the principal and teacher levels that can serve as predictors of professional development among the teaching staff in the Israeli education system.

Therefore, the present study will examine the factors at the principal and teacher levels of professional development, based on the internal coherence framework through the Pisgah learning organization program, and the link between their ranking and successful TPD.

A third system that includes the leadership of educational institutions outlines the TPD process, supports it, and fosters a work environment that enables it. Today, it is a given that the bodies responsible for overseeing teachers help them develop professionally through diverse mechanisms. TPD is a process in which both principals and teachers participate.

A fourth TPD system is that of the teaching staff themselves. This system is based on teachers' passion and motivation to develop, learn, and influence their teaching and learning. Research showed that while some human relations professionals prefer independent learning activities, teachers tend to prefer group-

learning activities such as collaboration, sharing materials and resources with others, and trial and error-based learning (Biggsby & Firestone, 2017).

The rationale for TPD can be viewed as a developmental spectrum from the teaching staff as individuals and then from a broader point of view of the relationship between the teaching staff and the school. Professional development can also deviate from the intra-school focus and expand to the need to compete against other institutions in the age of resource competition and reduction.

Observably, there is a close connection between the professional development processes of teaching staff and the quality of the education system. This connection is contingent on the professional development processes being focused and relevant to the needs of the learners, it's continuing throughout the teacher's career, and it's following the principles of meaningful learning.

In the field of professional development, there is a wide range of frameworks and mechanisms for the professional development of teaching staff for all age groups such as advanced training, peer learning, and discussion groups. The frameworks intended for the development of the faculty as a group take place within the school, and the frameworks intended for the personal professional development of the teaching staff take place outside the educational institution.

TPD has become a major focus of school reform initiatives mainly due to the view of many stakeholders in the education community that if teachers' effectiveness and students' achievements are to continue in a positive direction,

significant changes in teachers' knowledge and teaching practices must be implemented, and continual career-long TPD is essential to achieve good learning (Choy & Chua, 2019; Vermunt et al., 2019).

Over the years, the Israeli education system has sought to promote the quality and level of teaching in schools by implementing TPD (Pomson & Grant, 2004). The Israel Ministry of Education has defined TPD as a process that combines knowledge, skills, and collaborative teaching.

DISSERTATION STRUCTURE

The first section offers a theoretical framework and literature review, which demonstrate the theoretical perspectives underpinning this research. This section is divided into four chapters as follows: Chapter 1 -Theoretical and models perspectives- includes the Internal Coherence Model (IC), teacher professional development (TPD), and the professional learning community. Chapter 2- Teachers' level: Factors that prediction TPD includes teachers' professional identity, teachers' self-efficacy, the roles of teachers in an educational institution, and teacher leadership in the classroom. Chapter 3- Principals' level: Factors that prediction TPD includes principals' psychological empowerment, self-efficacy, and learning organization. Chapter 4- School Principal's Leadership includes school principals' transformational leadership, leadership definitions, types of leadership, and evolution of leadership.

Section 2 consists of the research objectives and hypotheses, Section 3 the methodology, Section 4 the results: The Results of the Empirical Research- Teacher level, The Results of the Empirical Research- Principal level, The Results of the hierarchical linear model, and Section 5 consists of the discussion of the results, conclusions, and limitations.

Table 1 demonstrates the content of the sections and chapters in the dissertation.

Table 1.*Structure of the dissertation.*

Introduction		
Section 1. Theoretical Framework	Chapter 1	Theoretical and models perspectives Internal Coherence Model, Teacher Professional Development, Professional learning community
	Chapter 2	Teachers' level: Factors that prediction TPD Teacher-Level, Teachers' Professional Identity, Teachers' Self-Efficacy, The roles of teachers in an educational institution, Teacher leadership in the classroom
	Chapter 3	Principals' level: Factors that prediction TPD Principal Level, Psychological Empowerment, Self-Efficacy, Learning Organization, Positive Organization Psychology, Psychological Well- Being, Psychological Capital
	Chapter 4	School Principal's Leadership School Principals' Transformational Leadership, Leadership definitions, Types of leadership, Evolution of leadership
Section 2.		Research objectives and hypotheses
Section 3.		Methodology
Section 4.	Study 1	The Results of the Empirical Research: Teacher level
	Study 2	The Results of the Empirical Research: Principal level
	Study 3	The Results of the hierarchical linear model
Section 5.		Discussion, Conclusions, Limitations, and future line of research

SECTION 1. THEORETICAL FRAMEWORK

CHAPTER 1. THEORETICAL AND MODELS PERSPECTIVES

This chapter offers a theoretical framework and literature review, which demonstrate the theoretical perspectives and models underpinning this research. It includes the Internal Coherence Model (IC), teacher professional development (TPD), and the professional learning community.

1.1.1 THE INTERNAL COHERENCE MODEL

In the present study, we will use the internal coherence (IC) development framework as a theoretical framework through which to analyse factors that promote professional development among teachers. The IC framework is a theory regarding how improvement in teaching and learning occurs in schools, when resources including the principal and teachers are aligned (Elmore et al., 2014).

According to Forman et al. (2017), the IC framework comprises a system of research-based methods designed for examining school's learning and support environment. It also refers to teachers' ability to make connections, learn and improve, which eventually result in providing better and richer educational opportunities to their students.

Moreover, the IC model brings together previously unlinked research areas, including leadership and organizational learning, and combines them into a developmental framework for understanding how the school environment

influences its staff perceptions of success in teaching and learning (King & Bouchard, 2011).

Thus, the IC model of assessment and professional development provides practitioners with valuable instructions on how to improve the organizational conditions of the school. It also focuses on enhancing school instruction, administration practices, and student learning by examining its processes over time (Elmore et al., 2014). Thus, this framework enables a wider perspective for researchers over time, as it concentrates on the whole, rather than on the individuals, which contributes to understanding the processes that either facilitate or hold back improvements.

This model posits that teachers are mainly influenced by the ongoing experiences occurring in the present, rather than in the past. Therefore, the IC project aims to build teachers', principals', and other staff members' understanding and ability to promote the positive characteristics of effective school environments.

Studies point out that minimal organizational condition should be present in schools to promote qualitative student learning among all students (Green, T. R., & Allen, M., 2015). These conditions include distributed and instruction-focused leadership; a coherent instructional program; ongoing embedded professional development; professional learning communities continually drawing on current data on instruction and student learning; and teachers' confidence in and responsibility for their efforts to obtain the desired learning outcomes.

In general, accountability policies and school improvement strategies will succeed only if the schools and their systems can grow, adapt, and increase their knowledge, skills, and integrative functions over time. If we acknowledge that students learn at different levels, this means that not only teachers should operate differently, but also that they should be individually and collectively learning how to do things differently (Garet et al., 2001).

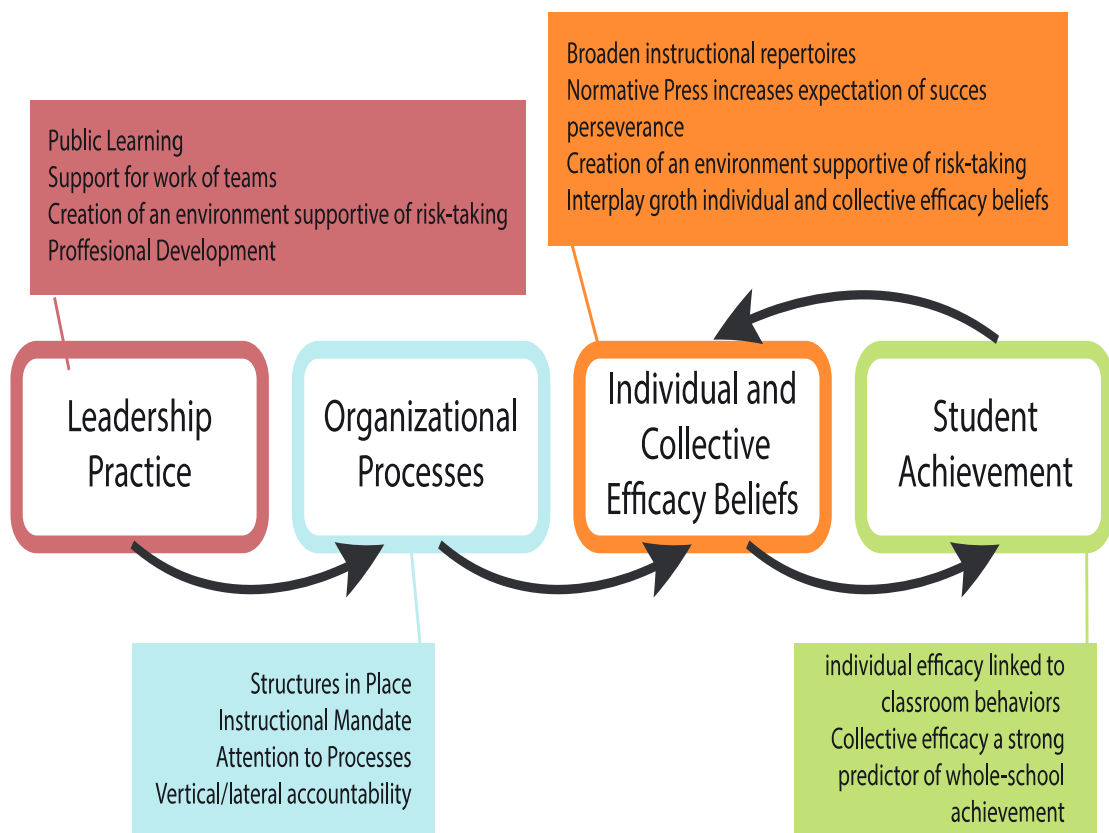
The Internal Coherence Assessment and Protocol (ICAP) framework is designed to overcome the disparities between theory and practice. In order to improve schools, this model provides school principals with information about specific leadership practices, organizational processes, and teacher efficacy beliefs. ICAP measures the three broad domains of IC (see Figure 2): 1. Leadership practices for instructional improvement, 2. Organizational processes (at two levels: whole school and team), and 3. Efficacy beliefs. The literature focusing on ICAP shifts the existing concentration on the general characteristics of successful leaders to the actual leadership practices that support the improvement of classroom instruction over time. Specifically, ICAP highlights the practices that leaders can use to improve the instructional core, defined as the relationship between the teacher and the student in the presence of content (City et al., 2009; Cohen & Ball, 1999).

In addition, ICAP recognizes specific organizational processes that support continuous learning. In particular, accountability policies increase motivation and improvement over time. Moreover, when a new policy environment is recognized the people in the organization should learn new behaviours and adapt to new

situations both individually and collectively (Elmore, 2014). Further, the ICAP framework helps administrators and teachers determine specific practices that could strengthen teacher efficacy beliefs over time.

Figure 2.

The Internal Coherence Assessment and Protocol (ICAP).



Source: Elmore et al. (2014).

Theory Development Through Clinical Practice

Clinical practice has become a focus of interest in the field of teaching and teacher education over the past decade, shaping up to be an auspicious approach. However, not everyone agrees what it actually is, causing much conceptual and practical debate (Kriewaldt et al., 2017).

Clinical practice may possess important implications for both the theoretical and practical aspects of teaching and teacher education. However, several issues should be addressed before they can become a significant concept in this field (Kriewaldt, et al., 2017).

Clinical practice is used in different fields, including teacher education. However, in contrast to medicine, where it focuses on people's illnesses, in teacher education the focus is on students' learning, development and growth, thus offering a powerful concept, fostering teachers' comprehension of student learning. Teachers engaging in clinical practice ask questions and gather evidence to reach answers. By using thought processes based on clinical reasoning and judgment, they manage to obtain the best possible ethical responses. Hence, the clinical practice provides the optimal model, as it is based on accepted medical education practices, and offers evidence-based interventions designed specifically for each student according to their needs (Conroy et al., 2013).

Clinical practice models have traditionally been used in medical education, where academic institutions, practising professionals and students work together, supporting each other in thinking and decision-making processes. In this way,

newcomers to the profession gradually develop the ability to engage in complex thinking and the exercise of judgment, going beyond merely technical responses to issues, becoming able to use dialogic and critical thought processes. When used in the teaching and teacher education field, this enables teachers to better comprehend their own and others' thought processes and act accordingly, both individually or in cooperation with others. This model also presents some challenges, as it is not exactly identical to the medical profession; nevertheless, its advantages for the teaching profession far outweigh the disadvantages (Kriewaldt et al., 2017).

By using diagnostic information provided by ICAP and related professional development frameworks to build capacity in each framework domain, school leaders can develop and test their theories of what will improve student learning and teaching practice, over the long term (Donovan, 2013). One problem impeding school improvement is that compared with other fields, education has a relatively weak basis in clinical practice (Burkhardt & Schoenfeld, 2003).

ICAP, however, is also intended to be useful as a clinical instrument. It is designed to generate information about the school that school leaders and their system-level supervisors can use to identify the strongest elements that can move a particular school along a developmental trajectory that will engender ongoing whole-school improvement.

Leadership Practices for Instructional Improvement

Literature show inconsistencies in the definition of the term leadership. Bass, B. M., & Stogdill, R. M. (1990) defined leadership as connected to leaders'

wishes, Kotter (1998) emphasizes leaders' influences, and Rost (1993) defined leadership as a relationship (Rosari, 2019). Among them, Rost's (1993) definition is the most practical application, which provides principles guidance to enhance the lecturer's leadership development.

Within the same lines, Robbins & Coulter (2012) define leadership as the ability to guide and influence a group of people to achieve their goals, and a leader possesses managerial authority and influences others (Bodla & Nawaz, 2010). Studies point out that the business landscape requires leaders and leadership abilities to be widely spread throughout the organisational structure (Zenger & Folkman, 2002). Leadership is an important requirement whenever people gather as teams to accomplish certain tasks.

According to Miner (2006), successful managers possess characteristics of being active and practical. They are flexible and able to adapt to new situations. Another important characteristic of managers is versatility. It impacts their leadership effectiveness and is a valuable skill that aids both leaders and their subordinates to handle varied situations (Kaplan, 1996).

Moreover, Harling (1984) suggested that leaders must be on the frontlines making efforts to shape behaviours of groups towards the aim of achieving the common goal. Also, Gunter (2001) remarked that whilst leadership is not inscribed in the manager's job description it is, implicitly, the requirement for the accomplishment of professional obligations. Furthermore, Robbins & Judge (2009) provide prominent theories of leadership and suggest that leaders possess personal

qualities and characteristics that differentiate leaders from non-leaders (Bodla & Nawaz, 2010) (see Figure 3).

Figure 3.

Definitions of Leadership

Sources	Definitions of leadership
Robbins & Coulter (2012)	Leadership is a process of influencing a group towards the achievement of a common goal.
Miner (2006)	Defined as agile and proactive.
Harling (1984)	Leaders must be on the frontlines making efforts to shape the behaviours of groups towards the aim of achieving the common goal.
Gunter (2001)	Leadership is not inscribed in the manager's job description it is, implicitly, the requirement for the accomplishment of professional obligations.

Sources: Own elaboration.

Robbins & Coulter (2005) define three styles of leadership based on the leader's behaviour i.e., autocratic style, democratic style, and laissez-faire style. They refer to the autocratic style as "a leader who tended to centralize authority, dictate work methods, make unilateral decisions, and limit employee participation", the democratic style as "a leader who tended to involve employees in decision making, designate authority, encourage participation in deciding work methods and goals, and use feedback as an opportunity for coaching employees" and the laissez-

faire style as “a leader who generally gave the group complete freedom to make decisions and complete the work in whatever way it saw fit” (Bodla, M. A., & Nawaz, M. M. 2010, p. 209).

Leadership always exists in a specific context and impacts the relationships within that context, as well as being influenced by them (Swensen et al., 2016).

Leadership influences organizational behaviour as well as people’s thinking within the organization (Wu et al., 2016).

According to Gunter (2001), education leadership is account for creating an environment that is enabling, facilitates knowledge, and provides different learning activities. Moreover, Butcher et al. (2000) acknowledged the importance of leadership for professional development in education. Harling (1984) supported the view to study higher education leadership. Furthermore, Shava and Tlou (2018) assert that the impact of school leadership on school effectiveness and school improvement is highly significant. Research points out that leadership is closely related to influencing human capital, and thus organizational climate and culture (Börü & Bellibaş, 2021).

Leaders play an important role in creating strong structures and fostering an instructional culture that supports their staff trying to reach improvement goals (Seashore Louis et al., 2010). School leadership can be categorised as being either instructional or transformational. Traditionally, instructional leadership views the principal as the primary source of educational expertise, responsible for maintaining high expectations for teachers, coordinating curriculum, supervising instruction,

and monitoring student progress. This focus on instruction requires a baseline competence in instructional practice. On the other hand, transformational leadership seeks to transform school cultures, by focusing on intellectual guidance that encourages innovation and supports teachers (Türkoğlu & Cansoy, 2018).

Recent research points out that the integration of the two aspects may positively affect teachers' instructional practices and lead to better results (Liu, et al., 2021). The association between leadership practices and high IC demonstrate the idea of shared instructional leadership (Marks & Printy, 2003) with the culture associated with transformational leadership, and the establishment of a learning environment (Edmondson, 2002). Principals who possess instructional leadership skills maintain an open and ongoing dialogue, and adhere to mutual decision-making with their staff; while continue being central agents for change (Rodrigues & Ávila, 2021).

Organizational learning research refers to the leadership domain of the IC framework, in which leaders in organizations with a high capacity for improvement promote continuous learning, develop organizational processes and actively act to create a learning-oriented culture (OECD, 2016).

There are four key components to the leadership practices associated with high levels of IC: modelling public learning, creating a learning environment, active engagement in teaching and learning, and providing meaningful professional development (Liou & Daly, 2020).

Whole School and Team Organizational Processes

Researchers in the organizational learning field indicate that organizations develop and improve when they focus on building the capacity for learning and leadership, rather than putting the emphasis on the individual's learning (Mishra & Reddy, 2021). Hence, schools that aim to function as a system, as opposed to being a collection of individuals operating separately, ought to follow structures and protocols for engaging in collective work. Individual teachers should realise that following the structures and processes, supported by the school's improvement goals, require their knowledge and skills (Hutchinson, 2020).

Major processes such as whole-school improvement involve organizational responses, as they combine not only the expertise and experience of the people in the organizations, but rather rely on the integrative structures and processes of these organizations (Mogren et al., 2019).

Research on organizational learning points out the significance of having integrative structures at the top of the organization (i.e., 'whole-school processes') as such different opinions and interests can be openly expressed and resolved. It also emphasizes group-level structures (i.e., 'team processes') that create and use important knowledge (Xie, 2018).

Whole-school processes for instructional improvement incorporate several components such as the schools' improvement strategy, the ongoing involvement of the teachers in instructional decisions, and a shared appreciation for the effectiveness of the practice. At the whole-school level, organizational processes

set sources and practices to achieve improvement goals. At the same time, they monitor the progress and provide an ongoing response to the learning needs. In schools with high levels of IC, whole-school processes coincide with the improvement strategy. Thus, when teachers experience the organization's improvement goals as being practical, measurable, and in line with the programs and curricula, it strengthens the relationship between organizational processes and the improvement strategy (Elmore et al., 2014).

Hence, by creating a framework for sharing information when needed, whole-school processes monitor the development of these programs and initiatives. Such processes provide teachers, as a group, to be involved in the improvement process (Goddard et al., 2004). Issues related to teachers' collective work regarding school, teaching, and learning embody the shared vision of instructional leadership (Marks & Printy, 2003). As such, schools with high levels of IC, encourage teachers to work together, develop improvement strategies, evaluate curricular and assessment materials, and design professional development experiences that are tailored to teachers' learning needs.

Furthermore, to properly implement an improvement strategy, staff members should possess a similar understanding of effective instruction. Meaning, they should maintain a shared understanding of a direction, or a common purpose related to instruction (Hackman, et al., 2002). The procedures supporting teacher collaboration can additionally promote the understanding of effective instruction. For instance, the interactions inside the classrooms, working together to interpret student work and assessment results, and evaluate specific instructional strategies

or resources can bolster shared beliefs about the process of effective instruction (Coburn & Talbert, 2006).

In addition, school leaders affect and influence teacher collaboration by encouraging teamwork and cooperation on a variety of topics such as discussing instruction, interpreting student data, and consulting complex tasks and problems (Haiyan & Allan, 2021).

Principals' responsibility is to lead the teams in the right direction, provide them with the time to meet, and give them the responsibility and autonomy to make decisions and act upon them (Pineda et al., 2019).

Therefore, teachers who work in teams that participate in instructional dialogue and reflect on their teaching methods, increase their understanding of the connections between their actions and students' learning (Gallimore et al., 2009). For this learning process to work a clear agenda that is connected to the teams' goals must be followed. It is also important to have an active contribution by all team members and provide horizontal accountability for implementing team decisions (Elmore et al., 2014).

Individual and Collective Efficacy Beliefs

Teachers develop beliefs about their efficacy and capabilities in supporting student learning by using their collective experiences. According to Bandura (1997), the efficacy domain is based upon the social-cognitive theory, which

recognizes past successful experiences as the most influential component of efficacy beliefs. Moreover, prior proficiency among school staff has been found to explain roughly two-thirds of the variance in collective efficacy levels (Wilson et al., 2020).

Individual teacher efficacy refers to the teacher's expectations and beliefs regarding their capabilities to bring about successful student learning and was found to be a well-established predictor of teaching behaviours that promote academic success (Barni, et al., (2019).). These behaviours involve teachers' willingness to undertake classroom experimentation and innovation, face challenging techniques and involve taking risks such as sharing control with students.

High-efficacy teachers tend to put more effort, pay more attention and can identify the needs of weak and low-ability students, use management strategies that motivate student autonomy, and modify students' ability perceptions. Correspondingly, these behaviours result in both higher academic student performances and in achieving affective goals such as increasing motivation and self-esteem (Ross et al., 2004).

As opposed to individual teacher efficacy, collective efficacy concentrates on schools rather than individual teachers, as the main unit of analysis. Collective efficacy refers to the group's efficacy beliefs or the degree to which teachers have confidence that "the faculty as a whole can organize and execute the courses of action required to have a positive effect on students" (Goddard et al., 2004, p. 4). Thus, as the group's perception of its collective capability to achieve a given goal

increases, the more likely it is to put in the effort and pursue that goal to achieve success (Bandura, 1997; Goddard et al., 2004). Studies in the efficacy field showed that levels of collective efficacy beliefs affect the amount of effort exerted, and enhance creativity and dedication of individual members toward the collective goal rather than focusing on individual goals. It also increases individuals' commitment to collaborate and share their tasks with others (Bandura, 1997; Takahashi, 2011).

The IC framework refers to both individual and collective efficacy as in terms of organizational development, individuals benefit most by reflecting on their independent work in the classrooms and learning from their students' experiences, and also by working collaboratively with the teaching staff on common instructional goals. Hence, as the leadership and organizational domains of internal coherence improve, we presume an ongoing, reciprocal growth process between the individual and collective efficacy beliefs (Goddard, 2001). Moreover, an increase in the collaboration between the staff members regarding instruction and student learning corresponds in better opportunities for individual teachers to strengthen their instructional repertoires and increase confidence in their abilities (Ross et al., 2004).

Efficacy beliefs serve as proximal outcomes, and we suggest that professional development should focus on the leadership practices and whole school and team organizational processes that will produce substantial improvements in teachers' collective learning about strong instructional practice. These adjustments to the new practice should, in turn, lead to mastery experiences

for teachers that will strengthen both their individual and collective efficacy beliefs (Puchner & Taylor 2006; Tschannen-Moran & Johnson, 2011).

Therefore, we suggest that a school high in IC will be able to benefit from internal or external resources to the organization and reach powerful, collective ends. Instead of working as a group of individual practitioners, IC is the school's ability to function as a unified organization and achieve its core functions of teaching and learning. Even though schools low in IC may gain success or individual teachers who can carry out successful intervention programs, they will be unable to affect whole-school improvement since they lack the capacity to muster an organizational response to their reorganization efforts. Therefore, focusing on IC places the centre of improvement work in schools.

Furthermore, the goal of the IC diagnostic and professional development model is to provide leaders with the opportunity to analyse the conditions of their organizations and impact and affect the learning environment processes. Thus, the purpose of IC professional development is to use ICAP data to improve leaders' abilities at the school and system levels and to create the appropriate conditions for educators to be involved and engage in continuous improvement.

As the challenging process of implementing whole-school improvement requires organizational responses and collaboration, therefore, success depends not only on the expertise and skills of the people in the organizations but also on the integrative structures and processes of these organizations (Childress et al., 2007; Honig & Hatch, 2004). Even though many school systems dedicate a vast amount

of resources to create collaboration structures including leadership teams and valuable shared teacher time, most times teachers lack the skills and practices to benefit from what these structures have to offer. Hence, as demonstrated in the literature, we expect that over time, the effects of IC professional development will increase levels of individual and collective efficacy among faculty for school development and improvement, and the operation of functional leadership teams.

1.1.2. TEACHER PROFESSIONAL DEVELOPMENT [TPD]

Learning how to learn is the ability to manage your learning, whether on your own or together with others, and to continue to do so using both time and knowledge effectively. Individuals' knowledge and ability are significant (Caliskan et al., 2018), including awareness of your own needs and learning processes, identification of opportunities and dealing with obstacles in an effort to succeed. Being able to learn how to learn involves the acquisition, processing and integration of new knowledge and skills. Use of knowledge and ability is assisted by experiences and disciplines. In addition, motivation and self-confidence are also significant re- individual competence.

Every person needs to use ongoing learning of one type or another in order to sustain his/her life, which created the birth of the concept of lifelong learning (Boz, 2018), defined by Demirel (2009) as an educational approach aiming at providing everyone with the needed education at the appropriate time and at an affordable cost.

At the core of lifelong education, we find the notion that education should be perceived as a way of life, rather than a particular age being devoted to it. UNESCO's Dictionary of Adult Education defines it thus, emphasizing that it should never relate to formal and/or organized education only. However, since learning includes both planned and unintentional activities, and due to the effort to convert education into a globalized concept, lifelong education has been changed into lifelong learning, based on the fact that learning is a more dynamic concept than education, placing the learning individual rather than the educator at the centre (Caliskan et al., 2018).

As education is constructed based on learners' needs, it needs to be designed so that it provides people with lifelong learning skills. Thus, teachers should provide role models, demonstrating positive attitudes and behaviors toward lifelong learning. Teachers are no longer assume the role of modern knowledge and abilities conveyor, rather perceived as guiding tools, assisting learners in acquiring knowledge on their own (Şahin & Koca, 2016).

TPD addresses developing and cultivating a teacher's knowledge, skills, role perception, and self-efficacy (Murodovna, 2019). Optimal professional development helps the teacher better understand and define the dilemmas and issues they face and gives them a wide-ranging set of tools to exercise their judgment in the classroom and assist their students in the learning process (Brown, 2019).

TPD is built using four-stage processes (Avdor, 2015). 1. The most senior system-level comprises policymakers outlining the nature and trajectory of TDP. 2.

A second system for TPD includes a professional development framework focused on teaching staff and academic institutions. 3. A third system includes the leadership of educational institutions that outlines the TPD process, supports it, and fosters a work environment that enables it. 4. A fourth TPD system focuses on the teaching staff themselves. Unlike other human relations professionals, teachers tend to prefer group-learning activities (Bigsby et al., 2017).

The outcome of professional development is improvement in school-based learning, as better-educated teachers will become better teachers (Golob, 2012). Teachers who have been through professional development will better help their students to reach their learning goals, as they will have better subject matter and pedagogical knowledge, as well as better teaching skills (Holloway, 2006). Moreover, networks of teacher communities may serve as a source of efficacy and confidence in adopting new teaching practices (Darling-Hammond et al., 2017).

The professional development of the teaching staff consists of a variety of contextual frameworks such as peer learning, discussion groups and advanced training. Thus, TPD usually occurs in different formal settings, such as professional development programs, teaching research groups, and mentoring programs; however, it can also appear during informal interactions (Postholm, 2018).

On the national level, leaders and administrators are responsible to maintain their teachers' professional development and provide them with professional aid. Consistently, on the district and school levels, principals and the school team are obliged to achieve goals and meet high academic standards (Ghasemiyan & Jafari,

2019; Darling-Hammond et al., 2017). Moreover, studies showed that continual TPD helps teachers feel greater control over their professional lives, increases their sense of efficacy, and motivates them to exert more effort, persistence, and resilience (Bekenova, 2016; Yilmaz, 2016).

Clearly, engaging in a quality TPD is a lifelong process that begins already in the pre-service training, but as noted by the OECD (2009), regardless of the quality of teachers' pre-service training, it cannot be expected to prepare teachers for all the challenges they will face throughout their careers. Therefore, teachers must strive to improve and become lifelong learners (Şahin & Koca, 2016).

TPD has been defined as a process through which a teacher steadily acquires self-confidence, gains new perspectives, acquires more expertise and experience, discovers new techniques, and takes on new roles (Evers et al., 2016). The OECD understands TDP to be "Professional development is defined as activities that develop an individual's skills, knowledge, expertise and other characteristics as a teacher (OECD, 2009, p. 51).

Studies showed that teachers engage in professional development activities including courses, conferences, or observation visits for 10.5 days a year on average (Sellen, 2016).

Research revealed that professional development is more effective when based upon six components, conceptualized as necessary or sufficient conditions (e.g., Cordingley et al., 2015).

1. Sustainability over time (Blank & De las Alas, 2009; Cordingley et al., 2015).

As single, one-day sessions are often ineffective over time, it is recommended that professional development should be organized in an iterative cycle, where content is recycled, as it takes time for teachers to assimilate and adapt new knowledge.

2. Group-based (Cordingley et al., 2015). Professional development should be based on collaboration and peer work. Being a part of the framework of a community of practice, provides teachers the chance to challenge each other, ask questions and clarify confusion.

3. Identification and endorsement (Cordingley et al., 2015). Voluntary professional development is considered more effective than when it is obligatory.

4. Training in subject-matter knowledge (Blank & De las Alas, 2009; Cordingley et al., 2015). This is contrasted with professional development, which involves training in general teaching skills only, unrelated to specific subject-matter content. It seems that the two are complementary; therefore, professional development is most effective when both are dealt with together.

5. External expertise (Cordingley et al., 2015). Input from people external to the school is provided, offering challenges or new knowledge, as opposed to recycling existing knowledge from the school itself, already familiar to the teachers.

6. Providing opportunities to use practice or apply course content (Blank & De las Alas, 2009; Cordingley et al., 2015). Giving teachers an opportunity to try out the new knowledge, skills or techniques in real classrooms, unlike situations where teachers merely receive knowledge passively.

Indeed, teachers' participation in professional development is an indicator of teacher quality (Blömeke et al., 2016), which, in turn, significantly impacts students' learning (Ainley & Carstens, 2018). Furthermore, practical professional development opportunities significantly impact teacher instruction (Darling-Hammond et al., 2017). Therefore, teacher training and TPD are essential mechanisms for enhancing teachers' content knowledge and developing their teaching practices (Creemers et al., 2016).

In addition, as teachers have the most direct contact with students within the school setting, as well as considerable control over what and how information is being taught; enhancing teachers' knowledge, skills, and attitudes are critical steps in improving learners' performance (Brown, 2019).

Professional development as an integral part of teachers' careers. Choy & Chua, (2019) believes that it is essential for advancing teachers' content knowledge and developing their pedagogies to maintain high teaching quality in the classrooms. The demands and expectations for better quality teaching and learning, and greater accountability and improved standards, have been receiving more emphasis and attention for many years and because of the importance of this area, policymakers, education researchers, and school leaders have put a high priority on research in teacher training and TPD (Collinson, 2012; Creemers et al., 2012; Criswell et al., 2018).

Teachers' motivation and willingness to participate in professional development processes are varied. It is affected by their interest in lifelong learning and improvement, deepen their professional competence, and providing

a sense of moral obligation. It also inspires new career option, and exposes them to new technologies and practices. Within the same lines, Craft (2002) (in Choy & Chua, 2019) points out that teachers aim to improve their job performance skills both as individuals and as being a part of the whole team. In addition, employees are often required to participate in professional development courses as part of the organization's human resource requirements (Golding & Gray,2006; Jasper, 2006).

Following the various definitions mentioned in the literature, the common denominator is that they recognise that development can occur in many frameworks, shifting from formal to informal ones. Support for development can be made given via external factors in the form of courses, workshops, or formal qualification programmes, and also through collaboration between teachers from different schools (e.g., observational visits to other schools or teacher networks). In addition, development within the school framework may consist of personal mentorship and coaching, sharing information, and planning and teaching collaboration. However, it is more common for TPD to take place in formal settings, such as professional development programs, teaching research groups, and formal mentoring programs (Postholm, 2018). Nevertheless, it is not restricted to these formats. Teachers can also learn through informal interactions that occur during peer teaching, collaborative planning, and mentoring between colleagues (Little, 2003).

Regardless of the position, in which it takes place, researchers concur that for gaining meaningful changes in the educational system, teachers must be

provided with opportunities for continually developing as they work (Harris & Anthony, 2001). Moreover, on the national level, important steps should be taken by the authorities to ensure that teachers develop professionally. In addition, on the district and school levels, both principals and teachers must strive to meet rigorous academic standards and state assessment goals (Ghasemiyan & Jafari, 2019). Supervisors can improve teachers' effectiveness by encouraging their TPD efforts. As pointed out by Darling-Hammond et al. (2017), schools must provide facilities for TPD in an uninterrupted fashion. With the help and support of administrators, the benefits of TPD can be fully realized.

Furthermore, studies showed that continual TPD helps teachers feel a greater sense of control over their professional lives and may increase their sense of self-efficacy, and motivate them to exert greater effort, persistence, and resilience (Yilmaz & Bekenova, 2016).

1.1.3 PROFESSIONAL LEARNING COMMUNITY

A professional learning community is an association of educators who work together to develop the quality of their teaching. It is also an effective strategy in teachers' development (Doğan & Adams, 2018). In addition to holding individual positions, teachers are also members of the school system, similar to their students. Notably, no two teachers are alike, neither in their background nor in their experience; and certainly, not in how they respond to the things they face in life and teaching (Boyle-Balse, 2005).

Thus, the competence and background of each teacher are different. This difference is reflected in the way they solve problems in their classroom. Teachers' communities can be a place for them to share experiences, innovations, content, problem solving, and to build attachments among their peers as a means of developing their competencies and professionalism (Juliasandi & Rohman, 2018).

A Professional Learning Community (PLC) is very different from a traditional teacher development program, organized by experts, as it focuses on lifelong professional development in school, where teachers share their expertise within their own professional community (DuFour & Eaker, 2009; Stoll et al., 2006; Tam, 2015). Based on Bandura's social learning theory, a PLC provides an alternative perspective on teachers' professional development, where the teachers are viewed as learners and the school as a basis of a learning community (Long, et al., 2021).

PLCs act as a framework for supporting school-based improvement (DuFour & Fullan, 2013; Prentice, 2016). In such a community, teachers share their experiences and work together to solve problems, using what they have learned in the community (Friedrichsen & Barnett, 2018; Tam, 2015), as well as developing their understandings of instructional policies and curriculum materials using a collaborative, inquiry-based paradigm (Bolam et al., 2005; DuFour, 2004). PLCs not only promote change efforts, but also have a major role in improving general school performance (Friedrichsen & Barnett, 2018).

A professional learning community is distinguished by its emphasis on group or collective learning. Research points out a variety of definitions for a professional learning community. Hord (1997), for example, describes it as a community of professionals continually conducting research and seeking improvement. Also, Louis and Marks (1998) regard a professional community as a school organizational structure with an intellectually oriented culture. Hence, the literature suggests a broad international consensus that a professional community consists of a group of people sharing and critically examining their practices in a reflective, inclusive, learning-oriented, growth-promoting way, operating as a collective enterprise. The goal of such actions is to enhance their collective effectiveness as professionals.

PLC offer a framework for teacher practice related to knowledge construction and change processes through collaboration with colleagues (Friedrichsen & Barnett, 2018; Prentice, 2016; Sjoer & Meirink, 2016).

A professional learning community comprises three important concepts. First, is learning at all levels of the school (individual, team, school) through critical self-reflection. The second is inquiry aimed at the advancement of the profession. Third, is community-based learning, the quality of relations between the members makes learning and improvement possible (Verbiest, 2011).

According to Mahimuang (2018), the above-mentioned concepts define the who, what, and how characteristics of a professional learning community. The concept of a professional learning community may adopt a wide range of configurations, which depend on schools' circumstances; nevertheless, all these

various forms generally have the five following characteristics or features in common: shared values and vision, collective responsibility, shared learning, shared leadership, and caring relationships.

Numerous processes occurring inside and outside the school affect the development of the professional learning community. Not only it involves providing the staff with development opportunities to reach a professional learning community, but rather two types of other conditions are essential: (1) provide a physical or structural setup such as time and space to meet and talk together, and (2) human qualities or capacities of the members of the professional learning community connected with teaching roles that are interdependent such as team teaching, integrated lessons, teaching monitoring, and empowerment (Mahimuang, 2018).

The members' focus on their professional learning community reflects mutually supportive relationships and developing shared norms and values (Stoll et al., 2006), which are strongly influenced by the presence and development of trust (Cranston, 2011). As Mitchell & Sackney (2011) argue, The learning community delves into the human experience.

The professional learning community of teachers is also a medium through which they can develop learning methods for their students (Cheng & Tsui, 1999). Every teacher certainly tends to adhere to one certain method in classroom learning. Different trends used by each teacher can be an asset for the community of teachers

to use. They can combine, collaborate, develop, and integrate these into their classroom learning methods.

Teachers must possess several professional competencies (Farisi, 2011) these competencies should be owned and developed by educators if they are to strive to become effective and qualified teachers, to improve the quality of teaching and ultimately improve the quality of education. In order to fulfil their roles properly, they should maintain knowledge sharing, which can be viewed as “the provision or receipt of task information, feedback and know-how to help others and to collaborate with others to solve problems or develop new ideas, products or procedures” (Park & Kim, 2015, p. 773). As such, knowledge sharing occurs when people ask for knowledge from others to solve their problems and are given an answer, thus they are more willing to assist others, learn skills and develop new competencies (Davenport & Prusak, 2000; Yang, 2007). Knowledge sharing also happens when communicating and networking with other experts, or by documenting, organizing, and capturing knowledge that they pass on to others (Cummings, 2004; Long et al., 2021). Teachers’ pedagogical skills focus on their ability to manage their learning and teaching. In addition, teachers’ personalities should be disciplined and intelligent, and act as role models to the students. As a professional, a teacher is required to master the depth of the material learned in class and to maintain the expected social skills while communicating with different communities and social environments.

A knowledge-sharing climate can be defined as “social interactions involving the exchange of employee knowledge, experience, and expertise to all departments within the organization” (Lin, 2007, p. 315). The organizational

climate influences the employees' behaviours, when they feel high levels of trust, they are more willing to share knowledge. Organizational culture and climate affect employees' behaviour and actions (Connelly & Kelloway, 2003; Gupta, 2008). A knowledge-sharing climate is a critical factor influencing knowledge-related activities (Peralta & Saldanha, 2014). For instance, research demonstrated that an organizational climate that does not provide sufficient support for knowledge sharing practices is a key barrier to individual knowledge sharing (Peralta & Saldanha, 2014; Riege, 2005).

A climate in which it is encouraged to share knowledge can promote employees' knowledge sharing behaviour by emphasizing the value of knowledge and creating an environment for knowledge exchange and accessibility (Michailova & Minbaeva, 2012; Peralta & Saldanha, 2014).

A climate in which it is encouraged to share knowledge also affects interpersonal trust and organizational learning (Kivrak et al., 2014; Kumaraswamy & Chitale, 2012) particular, it contributes to an increased level of trust and helps nurture trust and relationships both between teams and team members (Kivrak et al., 2014). By encouraging organizational members to discuss their ideas and establish collaborative relationships, a knowledge-sharing climate can promote the organizational learning capacity (Kumaraswamy & Chitale, 2012). An organizational climate that supports employees' collaborative and collective knowledge sharing can also raise the level of organizational learning (Lee et al., 2021).

Teachers, under their professional designation, are members of a knowledge-sharing community. They are not only individuals who have pedagogical abilities and knowledge; they are also creators, spreaders of knowledge, and trailblazers (Wood, 2007).

The teacher community provides an opportunity for teachers to develop their competence not only as passive recipients of knowledge but also as the generators, and inventors of such knowledge. In a learning community, teachers can reveal problems that have not yet been solved (Little, 2003). With the range of experiences and the wealth of knowledge of teachers coming together in a community, effective solutions for problems can be presented and discussed. This type of framework is likely to improve the quality of teaching both individually and as a whole because other teachers are also shared in the experience.

The profession of teaching is not static but continues to grow and change quickly in response to rapid technological developments (El Shaban & Egbert 2018; Warwick-Booth et al., 2019). As such, professional teachers need to be kept up to date on these developments. Discussion activities, as part of a learning community, are a crucial forum for teachers where they can exchange information about materials, methods, or gain new ways of solving problems.

Teacher professionalism is an ongoing process. It is reflected in the teacher's reaction to obstacles and how they choose to solve them. The different approaches to handling classes are an interesting discussion point between teachers. It requires high thinking skills and creativity. Professional teachers must have a

variety of perspectives and paradigms in addressing various scenarios that might occur when teaching in class. In the learning community, discussion among fellow teachers plays an important role in helping them cope with diverse classes by supporting the exchange of knowledge and experience.

The joint commitment to improve the quality of learning has become a strong reason for establishing productive collaboration. This commitment helps teachers rise above their differences in characteristics, which can be barriers to a good climate of communication and collaboration.

Levine's study revealed that schools that maintain a collaborative professional community of teachers can over time create resources that help teachers change aspects of their work (Levine, 2011). Among such resources are the teacher's desire to innovate, broad common goals, trust, continuity with the past, and high appreciation for other teachers. An effective professional community demonstrates strong communication among teachers, focused specifically on teaching and learning. Experienced teachers can mentor new teachers in their learning (Scott, 2005). Teachers with backgrounds in different disciplinary sciences can collaborate to develop thematic learning in their classrooms.

At the system level, professional learning is widely accepted as an essential part of achieving school improvement. Here the individual teacher takes centre stage as the most influential factor within the school for learner outcomes. Professional learning, however, for the most part, focuses on developing human capital, and as such, teachers' knowledge and skills are perceived as something that

is being done to the teachers (Timperley et al., 2007) in line with a national agenda. Due to the perception of teachers as passive recipients of knowledge, some systems lack accountability regarding the impact of professional learning and development. In contrast, other systems give teachers autonomy and authority for their professional learning. However, research points out that with this autonomy comes the responsibility to maintain and monitor the quality of teacher's professional learning and student outcomes (OECD, 2016).

Teachers' knowledge for-, in- and of-practice "drive initiatives intended to promote teacher learning" (Cochran-Smith & Lytle, 1999, p. 251). However, individual differences among teachers' mental models may hamper collaborative action and the construction of a shared curriculum, particularly when relating to their core beliefs regarding teaching and learning, which are notoriously difficult to alter (Sjoer & Meirink, 2016). External conditions are a major element affecting PLCs' sustainability (Pang & Wang, 2016); among which the most important seem to be administrative support and enablers' assistance (Kilbane, 2009). Administrative support comprises of supportive leadership and feedback on teachers' performance (Kilbane, 2009); while enablers' assistance includes aid from PLC developers and knowledgeable others, such as pedagogical experts and academics (Kilbane, 2009; Pang & Wang, 2016), which may play an important role in improving teaching practice, keeping up PLCs' vitality and the effectiveness, and assisting in bridging the knowledge-practice gap among teachers.

The research literature demonstrates that by empowering informal leaders within the teaching community to participate in collaborative decision-making processes in schools, PLCs have the ability to transform the situation. PLCs main goal is to encourage teacher collaboration and share teaching experiences and subject-matter content.

When teachers participate in collaborative learning, they work together looking for effective practices to address diverse student needs (Lee et al., 2021). Teachers working in a PLC framework use different collaborative tools (e.g., communities of practice in which novice teachers acquire tacit knowledge via fringe participation) to come up with solutions for improving student learning (Wallen & Tormey, 2019). Effective collaboration among colleagues encourages open dialogue, which is a necessary condition for pedagogical investigation and new teaching practices (Huffman et al., 2016). Teachers are more likely to use informal leadership practices outside their classrooms when school leaders inspire such efforts (Angelle & Teague, 2014).

1.1.4 CHAPTER SUMMARY

Many professionals, such as teachers, healthcare professionals, and engineers, are involved in professional development. A professional learning community is an effective strategy for the development of teachers' competencies. Teachers' participation in career development is an indicator of teachers' quality.

Teacher training and TPD are considered essential mechanisms to enhance teachers' content knowledge and develop their teaching methods with the aim of

teaching at high standards. At the national level, different governments must take steps to ensure that their teachers develop professionally, and with the help of professional TPD teachers, it will benefit the district and schools, as both principals and teachers opt to meet high academic standards.

Teachers' professional learning communities are also a means through which they can develop learning methods for their students. Teachers must have some specialized competencies, which are owned and developed by educators if they wish to strive to become qualified teachers and improve the quality of their teaching. Professional teachers are required to master the depth of learned materials and social communication skills as being members of diverse communities.

Teachers' communities provide the opportunity for teachers to develop their competencies not only as passively acquirers of knowledge, but also as the initiators and creators of it. By actively participating in teachers' communities, they can exchange knowledge and expose unresolved learning problems.

Moreover, discussion among fellow teachers, who are part of the learning community, plays an important role in helping teachers cope with diverse classes by assisting in exchanging knowledge and experience. Within the same lines, Levine's (2011) research demonstrated that schools with collaborative professional teachers' communities create resources that assist teachers to change aspects of their work and improve it over time.

CHAPTER 2. TEACHERS' LEVEL: FACTORS THAT PREDICT TPD

This chapter continues the theoretical framework and focuses on the teachers' level. As teachers have a considerable role in their professional development, the following chapter explores teachers' proactive domain: their professional identity, self-efficacy, and different roles and interrelatedness to the school community as reflecting and influencing teachers' professional development.

1.2.1 TEACHERS' PROFESSIONAL IDENTITY

Identity comprises different forms that people use to understand the world around them and react to it. It is multi-dimensional by nature. In addition, the term identity, as Beauchamp and Thomas (2009) maintain is a dynamic and ongoing process that is bound up with one's interpretation of self and larger society's interpretation of self. Similarly, Wenger (1999) holds that identity is (re)constructed through "tension between our investment in the various forms of belonging and our ability to negotiate the meanings that matter in those contexts" (p. 188). The above definitions and conceptualizations of identity demonstrate its context- and culture-specific nature, as well as it's, being dynamic and subject to change.

Concurrently, Rodgers & Scott (2008) state that identity depends on and is developed in multiple contexts of self-awareness regarding others. In their view, identity involves emotions and is continually in flux. It is inherently unstable and is shaped anew over and over as new meanings are drawn from life experiences.

As Wenger (1999) maintains, identity is developed through participating in different day-to-day group activities. Such groups have been given the name of “communities of practice”. They comprise groups of people who have various subjects in common; these could be their problems, hobbies, or their expertise in a specific area. Wenger’s (1999) argument reinforces the theories of the dynamic nature of identity because even groups with similar identities interact and stimulate changes in their members’ identities. When such interactions and changes occur in the professional realm, they impact the individual’s professional identity, referring to the individuals’ images of themselves as professionals. Moreover, a professional identity also comprises others’ expectations of them based on which their behaviours are shaped (Lasky, 2005).

The professional identity of teachers, as defined by Kramer and Hoffman (1981) is their sense of belonging and identification with the profession. Moreover, Beijaard (1995) claims that though we have little understanding of the processes that shape teachers’ professional identity, this identity can be described as “the answer to the question of who he is or what someone is, the totality of the different meanings that people attribute to themselves (binds) or the meaning assigned by others” (Beijaard, 1995, cited in Živković, 2013, p. 152). Furthermore, Beijaard (1995) suggests that teachers’ self-efficacy and readiness to deal with educational changes are shaped by their professional identity. He asserts that we should explore the way teachers consolidate their professional identity, because of the strong impact the latter has on their professional decisions and judgments.

In contrast, Coldron and Smith (1999) assert that the professional identity of teachers is a fusion of their personal and social lives. In other words, professional identity is influenced by genetics and environment. Similarly, in earlier studies, Louden (1991) & Goodson (1994) claimed that teachers' identities consist of personal and social biographies, both of which influence teachers' experiences.

Moreover, research showed that experience influences teachers' professional identity, such that increased knowledge and practice, understandably, reshapes teachers' professional identity over time. Consistently, Eales & Bradley (2018, p. 753) assert that "as a result of experience, teachers seem to have developed rich, well-organized knowledge bases that enable them to draw readily on their past experiences". Thus, the benefit of gaining experience, for teachers, is that they can apply their experiences from other aspects of life to teaching whenever needed.

The definition of identity, as being a fundamental prerequisite for professional identity (Beauchamp & Thomas, 2009), has been explored by researchers from diverse fields such as philosophy, psychology, and teacher education (Avidov-Ungar & Forkosh-Baruch, 2018). It has a complex fundamental role in various disciplines. In other words, "identity is constructed in social, cultural, religious, and political contexts" (Atay & Ece, 2009, p. 25). According to Johnson & Golombek (2016), discussions held inside and outside the class help shape teachers' professional identity. Studies on teacher education underscore the importance of identity in teacher development ((Beauchamp et al., 2009).

In the educational world, teacher professional identity pertains to “how teachers define themselves to themselves and to others” (Lasky, 2005, p. 901). The process of gaining a professional identity begins already at the training process as student teachers (Gracia et al., 2019). Their identity is constantly reshaping itself, as they move through teacher education and assume positions as teachers in today’s challenging school contexts. In addition, they may experience further identity shifts throughout their careers, deriving from interactions within schools and in broader communities.

According to Lopes and Pereira (2012), a teacher’s first professional identity is their identity immediately after their training program is completed. It is temporary and the result of the interaction between the student’s psychosocial identity (developed through the interactions with family, school, and peers) and the curricula of the training programme (specifically, introduction to professional practice i.e., the school placement). This identity derives from how they see themselves in the future (Lopes & Pereira, 2012), based on a set of personal and professional expectations, which arise from the contact with practical situations (Feiman-Nemser, 2008). Timoštšuk and Ugaste (2010) state that identity perceptions of student teachers form key supports underpinning their future professional performances. Yet, as evident from the above discussion, the concept of identity is complex, and even a brief look at the existing literature shows that it cannot be grasped in an instant. However, the relationship between teachers’ identity and teachers’ professional development must be appreciated.

1.2.2 TEACHERS' SELF-EFFICACY

According to Bandura (1997), self-efficacy influences behaviour by determining what goals and challenges individuals set for themselves, how much effort they choose to invest in pursuing their goals and overcoming challenges, and to what extent they persist in the face of difficulties and obstacles. Teachers' self-efficacy, specifically, can be seen as the beliefs that in-service and pre-service teachers hold about their potential to organize and execute the actions required to fulfil the given teaching mission regarding instruction, classroom management, and student engagement.

The concept of a teacher's self-efficacy refers to what the individual teacher can do. The teacher's sense of self-efficacy affects student learning because it influences instructional choice (Bandura, 1997; Ross, 1998). Thus, Bandura (1997) proposed four sources of self-efficacy: mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective states (as cited in Pfitzner-Eden, 2016).

Studies point out that among these factors, mastery experiences (performance accomplishments) are the most important and influential source for increasing teachers' self-efficacy (Bandura 1997; Ross & Bruce 2007a; Tschannen et al., 1998). Ross & Bruce (2007a) define mastery experiences as teachers' certain practices, which prove them that they are effective and successful (Gümüş & Bellibaş, 2021).

Self-efficacy is also characterized as a cognitive process for controlling behaviour, increasing self-competence and ability, and making people more competent and efficient (Shoulders & Krei, 2016). Self-efficacy plays an important function for a teacher in boosting teacher-student engagement as well, which may lead to positive outcomes (Demir, 2021).

Teacher efficacy has also been studied in the context of teachers performing assigned tasks. Such research has often focused on school environment characteristics or job satisfaction with their perceived work environment as contextual factors. For instance, teachers with low self-efficacy tend to show higher stress levels associated with their profession (Betoret, 2006).

Self-efficacy also denotes an individual's belief that they can produce a successful outcome. Self-efficacy represents the cognitive domain of teachers' motivational orientations, given that the underlying process is cognitive. Individuals use the information to generate an expectancy of their efficacy (Mahler et al., 2017).

Studies have shown that teachers' self-efficacy is related to different areas of their careers. The literature specifically emphasizes three of these areas: 1. beliefs about teacher-student relationships, 2. teachers' professional practice, and 3. emotional aspects (Mahler et al., 2017). While Bandura (1997) believed that an individual's sense of efficacy remains somewhat stable, Tschannen-Moran et al. (1998) asserted that teacher efficacy could either solidify over time or change with their experience in teaching (Yoo, 2016).

Teacher self-efficacy is considered an underlying construct that influences teachers' knowledge and control of subject matter, base, teaching strategies, and desire to make an impact on students (Benoliel & Berkovich, 2021). It also refers to teachers' belief in their abilities to achieve desired results in their teaching and students' learning (Sun & Xia, 2018). Thus, the concept of teacher self-efficacy has a unique place among teachers' beliefs as a meta concept that reflects idealized teaching outcomes that implicitly state preferred goals. Moreover, the focus on self-efficacy echoes other psychological framings that emphasize actors' traits and tendencies over relational processes and situational aspects (Benoliel & Berkovich, 2021).

Teacher self-efficacy beliefs are theorized to affect cognitive appraisals of situations and free emotional resources that allow attention to be focused on building supportive and caring relationships with their students. As teachers construct mental models of their relationships with students that then guide subsequent interactions with students (Zee et al., 2016) teachers' confidence influences their thought patterns and emotions and informs their beliefs about their role and capability to meet students' relational needs as well as how to respond to student interactions (Summers et al., 2017; Tschannen-Moran & McMaster, 2009).

Studies suggest that teachers with higher self-efficacy tend to use more challenging and appropriate teaching techniques (Pan, 2014) and innovative teaching programmes (Hsiao et al., 2011). At the same time, self-efficacy increases teachers' commitment to their individual professional development (Yang, 2020). Based on prior literature, when teachers are confronted with challenging student

behaviors or problems, confident teachers are less likely to respond in a hostile or defensive manner (Summers et al., 2017).

On the other hand, teachers with lower self-efficacy beliefs may engage in controlling or defensive behaviours that not only hinder the learning environment but also establish a communication pattern that is marked by hostility and insecurity. Thus, higher self-efficacy beliefs are likely to strengthen the quality of the relationship teachers have with their students (Hajovsky et al., 2020).

Within the same lines, studies showed that teachers with lower teacher self-efficacy beliefs facing a perceived failure in the classroom are more likely to blame themselves as incapable of success or blame the student and his or her parents (Brouwers & Tomic, 1999; Thompson, Warren, & Carter, 2004), which are likely to promote teacher-to-student interactions that may lead to continued or more severe conflict (Hajovsky et al., 2020).

Lumpe et al. (2012) refer to the association between teacher self-efficacy and teacher professional development and emphasize that since professional development programmes for teachers are a critical variable impacting teachers' belief systems, teaching practices, and student learning, there is an urgent need to examine which types of professional development activities affect teachers' self-efficacy, and how.

Moreover, Beauchamp et al. (2014) discuss the role of professional development in affecting teachers' beliefs and practices that will consequently

influence student engagement and learning. Gümüş & Bellibaş, 2021) suggest that one of the professional development activities should be focused on increasing teachers' self-efficacy.

Previous studies have already sought to gauge the association between teachers' participation in professional development activities and their self-efficacy (e.g., Bruce et al. 2010; Gaikhorst et al. 2015; Karimi 2011; Turner et al. (2011), Yoo, 2016). Most of these studies have reported a positive relationship between the two concepts.

1.2.3 THE ROLES OF TEACHERS IN AN EDUCATIONAL INSTITUTION

The definition of a teacher as used for TALIS 2018 is "a person whose professional activity involves the transmission of knowledge, attitudes, and skills to students enrolled in an education programme" (Ainley & Carstens, 2018, p.73). This definition does not depend on the qualification held by the teacher or on the delivery mechanism.

The role of the teacher is affected by two main types of functions. The first is associated with the country's regulations. The second is related to pedagogy, and the theory of education. The fit of teachers in society is governed by a complex set of roles that differ according to the society and educational level which are performed in the school and community respectively. Hence, teachers' role differentiates between schools according to the society and culture of the school community.

The school addresses teachers' roles as having the foremost task of enabling well understandable teaching experience that demonstrates the inheritance of important ideas and acquisition of good capabilities, which ultimately comply with educational standards (Xhemajli, (2016).). Furthermore, a great factor of motivation in pupils is the alignment of the lessons to their interests, the implication is that teachers have influenced and transformed pupils' learning abilities, which brings great satisfaction and motivates teachers to put more effort and become better teachers. Furthermore, the strong influence that teachers have on instructional quality and student achievement is widely accepted (Ainley & Carstens, 2018).

In the preparation and training of didactic and methodical plans, teachers are a pivotal factor. The undeniable fact of humans as social beings reciprocally is related to one another from the existence of man and so will continue to remain. The revelation is that human and society development depends on education which enables the development of knowledge, and human experience. As such, leaders will plan and manage their and others' work to educate are a prerequisite for success (Murati, 2015).

Teachers constantly play a crucial role in their work. In the educational sector, the role of the teacher is to build up an ideal personality in the students. Physiologically, teachers train the biological individuality with the social personality of the child. Morally speaking it is the responsibility of the teacher to develop the moral compass of the students. Lastly, the sociological point of view tells us the teacher's responsibility is for the development of social efficiency or good citizenship in the child (Correia et al., 2019).

It is the teacher's accountability to identify every student's need to facilitate their prospects and aptly convey their limitations. Therefore, an introspective look and dive into the student's care and attention is something to be earnestly coveted by teachers. The teacher is positioned to provide the necessary education, vocational, and personal guidance, and counselling to students when necessary, however, they should not expect progress in the educational sphere from their students to be constant.

Teachers' main goal is to deliver knowledge and teach in a classroom that enables students to learn. To achieve this, teachers are constantly involved in preparing effective lessons, checking exams, offering feedback and encouragement, managing classroom materials, navigating productively in the curriculum, and collaborating with the school team (Donoghue et al., 2021; Lovett, 2018). Moreover, the teacher is responsible for setting the tone in the classroom and creating an environment that allows students to learn and grow. Teachers may achieve this by setting up a stimulating, appealing classroom with procedures and routines (Feiman-Nemser, 2008; Main, 2018).

The role of the teacher is also observed concerning the students' families, society, and community. As such, the school is referred to as a community development Centre. The key person in this examination is of course the teacher. Thus, it is expected of the teacher to be the leader of the people as a community when their hour of need approaches with the school playing the role of a community development center, satisfying the cultural and socio-economic needs and wishes

of the people at large. By doing so, teachers enhance their role towards society and more specifically to their students.

In addition, teachers' roles are not constrained to the four walls of the classroom; they also participate in the co-curricular activities outside the classroom and provide valuable guidance to the students. During these outdoor activities, teachers look after their students' engagement and participation in the activities while maintaining special attention to each student's abilities and interests. As such, teachers can efficiently train and develop the students according to their inner talents and strengths.

Even though teachers' primary duty is to impart knowledge most efficiently, the time teachers spend with their students compel them to act also as role models that possess a major influence on the wellbeing of their students. Moreover, teachers become kind of surrogate parents and mentors to their students, encouraging them and being a source of inspiration and advice.

The teaching profession requires teachers not only to focus on the teaching curriculum but to see the broader role of teachers to make an impact on students' lives. Thus, teachers' role in the educational realm expands beyond the confines of academic teaching and achievements, as teachers act as mentors, substituted parents, and role models to their students (Demirkasimoğlu, 2010; Lovett, 2018).

The dependency of ongoing professional development enables teachers to continue growing, learning, and being enthusiastic about their work. Globally, there is a greater root-taking place with jobs with embedded forms of professional

learning. These are often centered around teachers' work with curriculum development through collaborative planning and research action of various students. Moreover, there is an increase in peer-to-peer expertise knowledge sharing among teachers.

1.2.4 TEACHER LEADERSHIP IN THE CLASSROOM

Knowledge is a complex concept, related to both teachers' professional and the school itself. Knowledge transfer can be activities (Al-Alawi et al., 2007), modelled in many different ways (Pearce, 2004), and manipulated through teacher leadership and learning interactions with students. Teaching constitutes a defined as the movement of knowledge in specific knowledge transfer process, ways from one person to another, in this case from teacher to student (Al-Alawi et al., 2007). The process of transferring knowledge between teacher and students is a reciprocal process, which involves the movement of knowledge from the teacher to the student and vice versa, through teaching and learning of different topics (Akintunde, 2007). Teachers use various teaching activities in order to enhance student's knowledge, and learning acquisition. In knowledge transfer, teaching style and methods are the determining factors impacting students' success. Teacher-oriented and student-oriented teaching styles aid the student to internalize the information, thus resulting in student acquisition of knowledge (Peng et al., 2021).

School improvement is a complex concept, and principals cannot be expected to achieve it on their own. Thus, teachers have a vital role, particularly in closing the gap between top-down decisions and bottom-up practices (Heck & Hallinger,

2009; York-Barr & Duke, 2004). This important role creates a need for teacher leadership as well as providing space for it, demonstrating for principals the advantages of sharing the responsibility for school leadership. Teacher leadership allows teachers on their own or with colleagues to affect other teachers and additional people from the school in an effort to improve the teaching-learning process to achieve better student learning and achievement (Shen et al., 2020). Teacher leaders aim at improving schools by both teaching students and influencing others in and outside of school (Wenner & Campbell, 2017).

Studies point out that teacher leadership is crucial to the success of school improvement and has a profound impact on the success of local school improvement efforts (Ainley & Carstens, 2018). A teacher leader's capacity to implement new approaches is heavily dependent upon many factors but on instructional reforms in particular. This is inclusive of helping colleagues understand their value fit, skills, and expertise. However, when leadership roles are brought to teachers; they are often met with tensions and ambiguities.

Many writers, such as Lumpkin et al., (2014) support the rhetoric that the key characteristics or options of teacher leadership stay the same, this is often because there are different definitions and interpretations of the essence and context of teacher leadership. A case of which may be seen with the following sentence: "The role of the teacher leader - what it is and the way it is outlined - is varied, looking at the college context and therefore the research. Yet, most students agree that teacher leadership happens within and outside classrooms to influence school-wide instructional practice" (Cooper et al., 2016, p. 87).

Criswell et al., (2018) referred to the ideas presented by Katzenmeyer & Moller (2009), Loucks-Horsley et al. (2010), and Donaldson (2007) and synthesized all three studies together. It led to the following definition of teacher leadership:

The gain of a deep understanding by an individual of the educational training concerning the practice and the system, both locally and more broadly, within one operates brings about understandings that the individual can cooperate to develop a pathway for producing systematic innovation, which means the improvement in the practice of teaching and learning” (Criswell et al., 2018, pp.5-6).

As such, there is much empowerment by the individual on others to generate change and modify the existing available resources in a way that brings about both productive and sustainable change for another perspective.

The definition of teacher leadership according to York-Barr and Duke’s (2014) is a process by which the teachers, individually and collectively, influence the school organization, namely their colleagues, principals, and other members to improve learning and teaching practices with the result being an increase in student learning and achievement. Wenner & Campbell (2017) offered their definitions of teacher leadership in terms of those who take on responsibility in line with leadership outside the classroom. Their primary objective was to put in perspective how teacher leadership is defined, teacher preparation, their impact, and other factors that facilitate teacher leaders’ work. Contrary, there is a much broader concept of the core definition of teacher leadership. In which teacher leadership is comprised to lead within and well beyond the classroom when they identify and contribute to a community of teacher-learners and leaders to influence others towards improved educational practice and accept responsibility for the

achievement of the outcomes of that leadership. Hence, teacher leadership can occur within and outside the classroom, as teaching and leadership are integrated.

On most occasions, definitions refer to teacher leadership as making an influence rather than it being perceived as a formal authority (Anderson, 2017; Smith et al., 2017; Snoek et al., 2017). The conception of teacher leadership involves a process where innovation had its key change agents as teachers (Chew & Andrew, 2010; Snoek et al., 2017). Secondly, definitions of teacher leadership focus on actions that go beyond the formally assigned roles of a classroom teacher, such as sharing practices and initiating changes (Baker-Doyle, 2017).

Teacher leadership is associated with peer collaboration (e.g., meetings of professional learning communities) or informal interactions (e.g., daily interactions, sharing and communication with other teachers) (Nolan & Palazzolo, 2011), based on mutual benefit, respect, and trust (Grant, 2006; Leonard et al., 2012; Nolan & Palazzolo, 2011). Teachers' influence is divided into several levels. It includes teacher leaders who seek not only 'pedagogical excellence' within their classroom but can also expand their impact to the school level and beyond (Chew & Andrew, 2010; Nguyen et al., 2019).

Commonly, interpretation of teacher leadership is that with which influence, impact, and outcomes are associated in the literal view. The intention to improve instructional practices falls on teacher leadership (Rutherford, 2006; Smith et al., 2017; Taylor et al., 2011). This is to promote school effectiveness and ultimately improve student learning (Eckert et al., 2016; Smith et al., 2017). Teacher leadership is identified by four common trademarks: 1. Influence is the outcome of

the teacher leadership process; 2. Collaboration and trust are the basis on which teacher leadership is exercised; 3. The classroom is not a limitation regarding teacher leadership; and 4. teacher leadership aims to improve instructional quality, school effectiveness, and student learning.

Wenner and Campbell (2017) provide a different perspective. Instead of focusing on the nature and mode of teacher leadership, they emphasize the roles of teacher leaders in the promotion of professional learning communities and policymaking. The common trend in both reviews is the illumination of the scope of teacher leadership (i.e., leadership that expands beyond the classroom) and its valuable results in enhancing teaching and learning. Scholars refer to the positive effects that leadership can have on schools as noted by Leithwood et al. (2004) “leadership is second only to classroom instruction among all school-related factors that contribute to what students learn at school” (p. 5).

In recent decades, there has been an attraction of teacher leadership in its bid to be an important aspect of school leadership. However, Wenner & Campbell (2017). proposed a contradictory view from the norm that teachers can promote change within schools given their vast experience in the complexity that inevitably comes with teaching. Additionally, researchers concluded that teacher leadership provides teachers with the capacity to lead the school complementary of an increase in spreading best practices, teacher collaboration, and the focus on content-specific issues (Curtis, 2013; Muijs & Harris, 2006).

The definition of teacher leadership constitutes three intentional development foci. The three foci are comprised of: 1. Individual development, 2.

Collaboration or team development, and 3. Organizational development (Cooper et al., 2016). The interpretation is that teacher leadership is a means to an end, that end being student learning and achievement. Leadership is a pattern of discipline in that it involves the level of ability to influence members to achieve a goal.

The understanding of leadership is the initiation of a structure. Without leadership, there is hardly a way of giving meaning to the vision and realizing values to create a conducive environment for going out and achieving goals. Identical to the classroom, teacher leadership is inclined to the scope of work within the school organization. The classroom is not the limitation to teacher leadership; instead, we can look at this in a much broader sense; the role and function of the teacher as the leader in the class (Susanto et al., 2020). The stronger the teacher leadership in the classroom the stronger the building of values and the character of the child is formed. To this, York-Barr and Duke (2004) concluded that the success of teacher leadership depends on interrelated, foundational conditions in three areas: 1. School culture, 2. Relationships, and 3. School structures.

There is a need for teacher leaders to build positive relationships among themselves, together with the principal who has a pivotal role in not only developing teachers' leadership skills but also are the gold standard in expectation setting and pathway creation for teacher leaders to flourish (Mangin, 2007).

Teacher leadership begins in individual classrooms (Warren, 2021), and moves towards an appropriate learning environment encouraging motivation and student performance (Oqvist & Malmstrom, 2016).

Effective teacher leadership is a necessary condition for student achievement, as its essential purpose is to maximize it (Hamzah et al., 2016). Harris and Jones (2019) believe it is a general influence, not a formal role; an action going above and beyond teachers' formal classroom-centered roles, sharing work and initiating changes, thus encouraging pedagogical excellence. In this way, teacher leadership is closely tied to improved results in the face of learning problems, as they are identified and dealt with together with students, through use of effective teaching and learning strategies (Warren, 2018).

1.2.5 CHAPTER SUMMARY

Teacher identity includes personal and social profiles, both of which affect a teacher's experience as a teacher as well as their identity outside of their professional life. Recent literature on teacher education emphasizes the importance of identity in teacher development. To succeed in the teaching profession, the identity of a student's teacher continues to develop as they become educators and take on the position of a teacher in today's challenging school environment.

The notion of a teacher's self-efficacy refers to what an individual teacher can do. In particular, the teacher's independent effectiveness can be seen as the belief that in-service and pre-service teachers have about their potential in organizing and taking the actions necessary to fulfil their teaching mission.

Research has shown that teachers' effectiveness is related to different areas of their professional life and that teacher effectiveness may increase over time or change with their teaching experience. In addition, teacher leadership occurs in and

out of the classroom, as they identify and contribute to a community of teacher-learners and leaders to influence people. Moreover, teacher leadership definitions focus on actions beyond the formally assigned role of a teacher in the classroom, such as sharing practices and initiating change. Research demonstrated that teacher leadership gives teachers the ability to lead schools, complementing the diffusion of best practices, and teacher collaboration. Thus, as this chapter demonstrates there is a strong link between teachers' professional identity, self-efficacy, and their different roles and interrelatedness to the school community as reflecting and influencing teachers' professional development.

CHAPTER 3. PRINCIPALS' LEVEL: FACTORS THAT PREDICT TPD

This chapter focuses on the principals' proactive domain. The principals' roles within TPD cannot be over-emphasized. We observe the psychological empowerment in organizations, the principal's self-efficacy, and take a deep dive into the learning organization. We also focus on positive organization psychology, well-being, and psychological capital.

1.3.1 PSYCHOLOGICAL EMPOWERMENT IN ORGANIZATIONS

A recent systematic review on organizational empowerment points out the important distinction between the terms “empowering organizations” and “empowered organizations”. The definition of empowering organizations refers to the empowerment of individuals within the organization and may not specifically affect the larger context they are part of. However, on the other hand, empowered organizations impact social policy and affect the larger context by focusing on the organizational constructs that are separated and distinct from the individual level (Rothman et al., 2019).

An earlier definition by Conger & Kanungo (1988) stated that empowerment is a perception or an approach of an individual toward their role in the workplace. Considering the critical role of the individual in organizational success, individual empowerment is essential. Therefore, to enhance the organizational outcome, managers need to increase empowerment at the level of the individual i.e., the employee (Mufti et al., 2020).

Organizational empowerment is associated with psychological elements. Spritzers (1995) defined psychological empowerment as a kind of intrinsic motivation that is manifested by four kinds of cognition:

1. Meaning: the perceived value of a work or task, making work meaningful (Block, 1987; Schein, 1985), identifying with the task (Bennis & Nanus, 1985), or finding meaningful value in it (Shamir, House, & Arthur, 1989). Hence, developments in the management literature converge with the motivational assumptions of the job design literature (e.g., Hackman & Oldham, 1980).

2. Competence: Guerriero & Revai (2017) defined teacher competence as having the capabilities to address complex demands in a certain situation by using a variety of psychosocial (i.e., cognitive, functional, personal and ethical) components. Moreover, the extent to which an individual believes that they have the necessary skills to perform the organizational activities influences competence. Hence, individuals should perceive themselves as capable of achieving goals, designing plans, and fulfilling their potential, which is required for gaining competence. In addition, an individual's need for autonomy corresponds with the desire to construct identity by determining and developing one's values, abilities, and aims (Assor, 2012).

Numerous studies focus on competence. One of them is the OECD, (2016) that constitutes an example of policy framework regarding competence. Its main point is the idea that in order to achieve success in the modern workplace, young people require certain competences (Belan & Niron 2021; OECD, 2016; Tenekeci & Uzunboylu, 2020).

3. Self-determination: The teaching profession has been experiencing numerous and continuous changes in the past decades, caused by shifts and transformations in the fields of economy, technology, pedagogy and society in general (Eacute & Esteve, 2000; Flores, 2016). These changes are perceived as opportunity for further growth by some teachers and as a potential threat and a source of pressure by others (Fussangel & Dizinger, 2014). However, these are not the only stress-creating factors. At the micro-level, the school environment itself may constitute a source of stress and pressure among teachers, due to student misbehaviour and unsupportive school administration (Aldrup et al., 2018; Van Droogenbroeck et al., 2014). These various stressors may affect the way teachers function in the workplace and their interaction with students. theory (Vansteenkiste et al., 2020) provides a valuable theoretical framework to examine whether and why experienced social pressure relates to teachers' work-related functioning. According to Basic Psychological Need Theory, teachers will thrive most when having fulfilled their basic psychological needs which refer to the following three components: autonomy (i.e., experiencing a sense of volition and psychological freedom), competence (i.e., experiencing a sense of mastery and effectiveness) and relatedness (i.e., experiencing a sense of connection and mutual care) (Vansteenkiste et al., 2019).

The association between social pressure and teachers' functioning at workplace, can be examined by using the framework of self-determination theory (Vansteenkiste et al., 2020). In addition, the Basic Psychological Need Theory maintains that fulfilment of teachers' needs for autonomy, competence and

relatedness will result in optimal teachers' work-related functioning (Vansteenkiste et al., 2019).

Kaplan (2017) perceives self-determination theory as a motivational theory. It contends that the needs for autonomy, relatedness and competence are basic individual psychological needs. The need for relatedness refers to an individual's need for a sense of belonging and creating a close and safe connection to one's social environment.

4. Impact: perceiving oneself as influencing one's immediate work environment. Spritzers (1995) argued that these four dimensions constitute the overall construct of psychological empowerment. Even if only one is lacking, the overall extent of perceived empowerment is weakened.

Moving from the general definition of empowerment in organizations, we aim to specifically refer to empowerment in educational settings. Psychological empowerment in schools and in educational organisations consist of teachers' competence to advance their personal and professional development and to deal with their problems. At the same time, the school systems should create opportunities to develop competence, increase the capacity to distribute roles in decision-making as well as increase opportunities for meaningful collective participation from teachers (Tindowen, 2019). Furthermore, various studies had concluded that empowerment has a significant and positive effect on teachers' organizational behaviours (Calibayan, 2015; Tindowen, 2019).

Studies also discuss the empowerment of managers and leaders at schools. For instance, Lee & Nie (2014) found that empowering school leaders enables the fostering of work conditions, enhances teachers' psychological empowerment and their subsequent work outcomes. Furthermore, based on an extensive review of empirical studies across diverse work settings Lee & Nie (2014) discovered seven dimensions of school leaders' empowering behaviours in their development and validation of the 'School Leader Empowering Behaviours' scale. The seven dimensions of the SLEB scale are 1. Delegation of authority; 2. Providing intellectual stimulation; 3. Giving acknowledgment and recognition; 4. Articulating a vision; 5. Fostering collaborative relationships; 6. Providing individualized concern and support; and 7. Providing role-modelling.

Employee empowerment is associated with positive effects on job satisfaction and results in a reduction of burnout among employees (Wong & Laschinger, 2013). An increasing number of studies have found that leadership strongly influences the creation of empowering workplace environments and maintaining satisfaction among employees (Mufti et al., 2020). To highlight its importance, Wong & Laschinger (2013) established that there is a strong influence of empowerment on job satisfaction and results in the pursuit of organizational values. Psychologically empowered employees not only exert more effort in the workplace but also wish to stay in the organization. Numerous studies have reported that a frequent consequence of empowerment is job satisfaction (Mufti et al., 2020).

Efficiently implementing empowerment among employees depends on organizational leadership. Where leadership is successful, results show enhancement of employee involvement in and autonomy at work. To develop

empowerment among employees, leaders should both encourage employee participation and show concern for the employee (Mufti et al., 2020).

1.3.2 THE SELF-EFFICACY OF THE SCHOOL PRINCIPAL

Fundamentally, Bandura (1997), well known for his social cognitive theory, laid the foundation and background to the term self-efficacy. It is defined as the degree of a person's belief that they can mobilize their cognitive resources and action methods to function properly and succeed in performing tasks. Self-efficacy is the subjective feeling that a person has when approaching a task, especially a new one. Before approaching a task, one judges one's ability to successfully organize and execute a behaviour or set of behaviours that will lead to the desired outcome of that task.

Swanson (2014) also defined it as a person's belief in his abilities to take action to accomplish different types of performances. Furthermore, Bandura (1977) asserted that self-efficacy beliefs function as an incentive factor that may enhance effort, motivation, and action. Thus, it should also be noted that positive experiences enhance strong confidence in one's abilities, while disappointments and failures tend to weaken and lower a person's self-efficacy (Giladi et al., 2022). People may experience different feelings when performing tasks under different circumstances and conditions. As such, beliefs about self-efficacy have a wide influence on people's thinking patterns and emotions, which enable them to act in a way that can either lead to success or failure (Fisher, 2020).

In terms of the educational sector, during the late 1980s and 1990s, scholars began examining how the self-efficacy of school principals shapes their leadership behaviour. The assessment of leader self-efficacy took on heightened salience as time passed and principals were asked to accept the additional challenges of instructional leadership (Hallinger et al., 2018).

Studies showed that a principal's belief that he can retain teachers is a necessary trait for a good leader (Tschannen-Moran & Gareis, 2004). Hallinger and Lu (2014) found that shared vision in principal leadership and school management was positively related to teachers' perception of school alignment and coherence, teachers' commitment, and teacher support to students.

Moreover, principal self-efficacy is associated with principal well-being and motivation as well as adaptive leadership functioning (Skaalvik, 2020). It was also shown to be positively associated with job satisfaction (Federici & Skaalvik, 2012), persistence in pursuing goals (Osterman & Sullivan, 1996), the quality of supervision of teachers (Licklider & Niska, 1993), collective teacher efficacy (Hallinger et al. 2018), and effort to influence teacher attitudes and behaviours (Hallinger et al. 2018). Research showed that principal self-efficacy has been negatively related to burnout and motivation to leave the job (Federici & Skaalvik, 2012).

Several studies identify principal self-efficacy as principal leadership (Brown & Wynn, 2009; Ndoeye et al., 2010), principal ability (Buchanan, 2010), and administrative support (Russell et al., 2010). The self-efficacy of school leaders and the school climate are important factors when analysing teachers' retention

(Dahlkamp et al., 2017). Over the past three decades, since it was first investigated, the term 'school principal self-efficacy' has transformed in accordance with the ongoing changes of principals' roles and duties. Within the same lines, as professional self-efficacy involves competence in the profession, if the nature of the profession changes, the level of one's professional self-efficacy will change accordingly (Fisher, 2020).

Literature provides evidence for various positive effects of principals' self-efficacy, such as the positive influence on their work attitudes. In addition, it positively impacts teacher collective efficacy (Hallinger et al., 2018), school conditions (Leithwood & Jantzi, 2008) and school effectiveness (Gümüş & Bellibaş, 2020). Moreover, there seems to exist a positive connection between principals' self-efficacy and their leadership behaviours, such as principals' ability to set directions, develop school staff, manage instructional programs and bring about organizational changes (Leithwood & Jantzi, 2008) or their ability to exhibit instructional leadership behaviours (Hallinger et al., 2018). In light of these findings it is possible to hypothesize a positive relation between higher perceived principals' self-efficacy and their ability to cope with challenges and possible failures and to exercise higher leadership skills.

1.3.3 LEARNING ORGANIZATIONS

The term 'learning organization' was established by Peter Senge and his colleagues in 1990. According to Senge (1990), an organization that cultivates original thinking, combined learning development, and expands its capacity to achieve the desired results can be referred to as a learning organization. Hence,

organizations that encourage their members to continually learn and develop enable the learning organization to become more adaptable and productive (Dash, 2019). With this, Senge (1990) developed the concept of learning organization by relating the concept of organizational learning to the concept of system thinking and mental models.

Moreover, Senge (1990) stresses that for the growth of an organization, both individual learnings, as well as organizational learning, are essential. Thus, such learning necessitates an environment conducive to independent thinking, new ideas, and continuous learning. The transformation to a learning organization can make the organization flexible, adaptive, and productive, enabling it to perform exceptionally in a competitive world. Furthermore, Senge (1990) identified five disciplines that an organization must master to become a learning organization. The disciplines are team learning, personal mastery, building shared vision, mental models, and system thinking. Concurrently, Hodgkinson et al., (1998) refer to organizational learning as the interactions between individuals with their learning style, and interactions with the group.

Recent research on learning organization points out other definitions. Kools and Stoll (2016) define a learning organization as a continuous process of integrating and collectively interpreting knowledge that enhances the organization's collective ability to make sense of and respond to internal and external change. Across the spectrum, Odor (2018) defined learning organizations as organizations that are skilled at creating, acquiring, and transferring knowledge, and, at the same time, modifying their behaviour to reflect new knowledge and insights. Hence, a learning organization helps enhance organizational learning by

creating structures, strategic fittings, and strategic crafting (Odor, 2018). In sum, an ideal learning organization promotes and facilitates the learning of all its members.

Organizational leaders are pioneers in the sphere of putting forth-continuous learning in organizations with an emphasis on the empowerment of every member. Thus, a learning organization requires the expansion of the duties and responsibilities of an individual to achieve the desired outcomes. It also requires individuals to work as a team and share a common vision. Further, a learning organization should focus on the following areas: collective thinking, mastery by individuals of their job, a common vision, team learning, and mental models (Sachan et al., 2016).

According to Kools and Stoll (2016), the learning organizations model consists of seven primary ‘action-oriented’ components. These are: 1) implement and share a vision that is focused on the learning of all students; 2) developing and supporting continuous learning opportunities for all staff; 3) promoting team learning and collaboration among staff; 4) creating a culture that promotes inquiry, innovation, and exploration; 5) establishing embedded systems for collecting and exchanging knowledge and learning; 6) learning with and from the external environment and larger learning system; and, 7) modelling and growing learning leadership. By cultivating the above components, schools can transform themselves into becoming a learning organization and ultimately enhance teachers’ professionalism and students’ performances.

Regarding the above definitions, the school setting functions as a learning organization. It can change and adapt to new environments and circumstances while

its members, individually and together, learn how to realize their vision (Kools & Stoll, 2016). Moreover, Odor (2018) believes that when a school becomes a learning organization it attains a competitive advantage. It acquires brand equity that its competitors cannot match, and thus it can attract and retain the best talents.

Our study focuses on the Pisgah Centres and their learning organization program, an initiative by the Israel Ministry of Education, which works within a school framework to help promote teachers' professional advancement. The PISGAH Centres aim to develop and empower teaching staff throughout their professional careers, by adapting national systemic goals to specific local conditions.

The PISGAH Centres' learning organization program views the school as a supportive and conceptual framework that enables the professional development of its teaching staff. Its pedagogical teams refer to schools as learning organizations in which human capital is continually being enriched. They encourage the initiation and development of models and learning frameworks for the development of in-house professional organizations.

The "learning organization program" will be operationalized by evaluating the implementation level of the Pisgah "Learning Organization Program. In Israel, TPD is conducted under the leadership of school principals in collaboration and assistance of the Pisgah "Learning Organization Program", supported by the Israeli Ministry of Education. This program is designed to allow the opportunity to both empower the educational staff and to develop the school as a learning organization. The Pisgah learning organization program (see Appendix 4) emphasizes and makes

accessible the mapping of teacher's characteristics (e.g., seniority, role, areas of teacher's learning over the years and teachers' professional development) so that school principals can make use of it to evaluate and determine areas for their teachers' professional development.

1.3.4 POSITIVE ORGANIZATION PSYCHOLOGY

Until the 1950s, research on healthy organizations mainly focused on indicators that involved loyalty, production levels, low absenteeism, and industrial safety. However, since the 1950s there was a change in the researchers' approach and studies gradually changed. Argyris (1958) had "healthy organization" defined as one that allows optimal human functioning to occur. Different working conditions could positively and negatively influence employees' health (Gomez, 2007). Furthermore, Salanova et al. (2012) defined organizations that are healthy and resilient as those that make systematic, planned, and proactive efforts to ensure the improvement of the processes and results of their employees and organizations in their Healthy and Resilient Organizations (HERO) models.

There are three levels on which these efforts are related to organizational resources and practices: 1) task level (feedback, improved autonomy by redesign of tasks), 2) environmental social level (e.g., leadership), and 3) organizational level (e.g., improvement of health through organizational strategies, work-family reconciliation) (Martín-del-Río et al., 2021). The HERO model stipulates that an organization promotes higher levels of well-being in employees when it invests in healthy organizational practices and resources, which in turn, leads to better results on the organizational level (Gil-Beltrán et al., 2020). Conclusively, employees'

investment in well-being and health is associated with competitiveness and profitability (Salanova et al., 2012). A healthy employee is also engaged and undergoes a positive affective-emotional and psychological state experience concerning his/her work (Masood & Khan, 2020).

Within the same lines, in order to have employees that are more engaged in the organization, research recommends providing more job and personal resources at work, i.e., team support climate (Torrente et al., 2012), organizational trust, or transformational leadership, which may increase employees' engagement in the organization. Additionally, research has shown that there are important consequences for engagement, such as the increment of performance and service quality (Torrente et al., 2012), job satisfaction, and organizational commitment (Llorens et al., 2006).

The scientific paradigm studying what exactly enables individuals and institutions to excel and flourish by placing focus on the expansion of potential through positive emotions, positive well-being, positive traits, virtues, strengths, and values towards optimal human functioning is embodied in Positive Psychology (Linley et al., 2007; Seligman & Csikszentmihalyi, 2014). With a rising attention towards positive psychology in general, positive organizational psychology relies on the scientific study of positive organizations and subjective experiences and traits in the workplace and its purpose to improve the effectiveness and quality of life in organizations (Donaldson & KO, 2010). Additionally, Spreitzer and Sonenshein (2003) defined positive organizational scholarship and behaviour as the study and application of positively oriented human resource strengths and

psychological capacities that can be measured, developed, and effectively managed for performance improvement (French & Holdne, 2012; Luthans & Jensen, 2002).

Effective management of human resources is necessary, especially in an ongoing and changing reality. Human beings are complex entities, and to address this complexity there is a need to use psychology that not only addresses difficulties but also goes beyond and focuses on enhancing and supporting people's strengths in all areas of life, including the work environment. Hence, modern organizations are beneficial as they enable this positive approach to increase meaning and applicability. Positive organizations acknowledge that to survive a move towards a positive mindset is needed. Then, organizations will successfully be able to get their workers to be more positive, proactive, show personal initiative, collaborate with others, take responsibility for their career development, and commit to excellence and social responsibility. To achieve this goal, it is necessary to adopt a positive organizational mechanism.

Positive Organizational Psychology (POP) arises from the holistic health concept applied to the specific context of work. Its origin derives from optimal performance, to amplify and enhance psychological well-being, and the quality of work and organizational life (Salanova et al., 2016). It includes characteristics that compose a full life organization, that is, to answer these two fundamental questions: what characterizes positive employees, and what are positive organizations like? Additionally, these characteristics are considered at different levels, not only individually, but also at their social group and organizational level.

POP intends to encourage the promotion of positive organizations to commit to the comprehensive, interdisciplinary, and multi-casual way of the development of health. Positive organizations are those in pursuit of excellence and financial success on the organizational level; but since they enjoy a physically and psychologically workforce that can maintain a positive working environment, especially during periods of turbulence and change, they are capable to become even stronger (Salanova et al., 2012,).

In 1999 a research team led by Dr. Marisa Salanova in Valencia, Spain established The Healthy and Resilient Organization (HERO) model. This model was originally created to study the burnout phenomenon, work-related stress and the effects of outplacement in workers during economic crises. Afterwards, by transforming the negative sections of the work-related health spectrum into a model that offers organization members the required psychological resources to be resilient when facing economic crises, and the tools to look at economic cycles and market challenges as moments of growth and opportunity for organizations.

Specifically, the HERO model has been developed based on valuable research from 2004 to the present, primarily through the studies of Wilson, DeJoy, and colleagues (DeJoy et al., 2010; Wilson et al., 2004), the Job Demands-Resources Model (Demerouti et al., 2001), Albert Bandura' Social Cognitive Theory (Bandura, 2002), Steven Hobfoll's COR Model (Conservation of Resources) (Hobfoll, 2001), and Barbara Fredrickson's broaden-and-build theory of positive emotions (Fredrickson, 2001).

In this context the HERO model was developed, a concept referring to positive organizations characterized by the binomial of health and resilience. We have defined a HERO as an organization that conducts systematic, planned, and proactive actions to improve the processes and results of both the employees and the organization as a whole. In addition, these organizations are resilient because they maintain a positive adjustment under challenging circumstances, are strengthened in adverse situations, and can maintain their performance and results under pressure. These efforts involve the implementation of healthy resources and organizational practices seeking to improve the working environment, especially in times of instability, to develop employees' health and the financial health of the organization (Salanova et al., 2012).

The HERO model, with healthy and resilient as the understanding of the development and evaluation of Positive Organization, is theoretically based on a vacuum. It is a heuristic model that integrates theoretical and empirical results coming from different areas such as human resource management (HRM), organizational behaviour, positive organizational psychology (POP), and work stress.

This model proposes that an organization is positive when it has three components that interact with each other so that if you invest in one this can lead to positive benefits in the others (see Figure 4):

1. Healthy organizational resources and practices, task resources understood (e.g., autonomy) and the working group (e.g., social support), as well the structural and organizational strategies in work (e.g., communication strategies). It proposes to invest in healthy organizational practices (e.g., reconciliation of the balance in

work-life, mobbing prevention, psychological health, communication in organizations) and in healthy resources, particularly feedback, supportive climate, autonomy, coordination, and in the promotion of positive and transformational leaders.

2. Healthy employees and working groups who enjoy high levels of psychosocial well-being in terms of efficacy beliefs, positive emotions, engagement at work, and resilience.

3. High performance and organizational excellence as healthy organizational outcomes, good relations between the community and the organizational environment, and corporate social responsibility (Salanova et al., 2012).

Figure 4.

HEalthy & Resilient Organization (HERO) Model.



Source: Salanova et al. (2012).

Studies showed that transformational leadership has a positive effect on the performance of work teams through collective engagement, showing that a leader's performance does not have a strong effect on the team's performance, but rather working through motivational states, such as engagement (Cruz-Ortiz et al., 2013). Moreover, the mediating role of engagement has been demonstrated regarding the relationship between the perceptions of organizational justice and organizational citizenship behaviours. Achieving a supportive work environment and civic behaviours is important for teams, and the perception of organizational justice affects the appearance of these behaviours. However, the direct effect of these perceptions on citizenship behaviour occurs when there is an appropriate level of worker engagement (Rodríguez et al., 2014).

Other indicators of healthy employees and groups, such as resilience and satisfaction, also mediate the relationship between workers' perceptions of their organizational social context and performance. Psychosocial factors, such as resilience and satisfaction, are also necessary to facilitate the effect of the resources (Meneghel et al., 2016).

It is important to have work and personal resources that favour a high level of engagement, as these variables are antecedents to good performance (Lorente et al., 2014). The importance of the affective aspects of work has also been demonstrated. Work teams that experience positive group emotions and have high levels of collective resilience obtain better performance when evaluated by their supervisor, indicating the need to provide work experiences that produce positive emotions shared by the teams (Meneghel et al., 2016). The same effect is produced

by collective engagement, teams with more collective engagement perform better, both within their role and outside of it (Torrente et al., 2012).

A positive organization is characterized not only by its organizational excellence and financial success but also because it has a physically and psychologically 'healthy' workforce, able to maintain a positive work environment and organizational culture, particularly during periods of turbulence and social and economic changes. Healthy and resilient organizations can be enhanced and promoted through practical strategies based on Positive Organizational Psychology, promoting, and developing levels of positivity in their employees, teams, and managers at the organizational level, while also implementing individual measures that workers can develop both within the organization and outside it.

Positive interventions should focus on organizational assessment, followed by an increase in organizational resources and practices (rather than reducing demands), to influence the levels of employee well-being (healthy employees and teams), thereby improving organizational results (both performance and excellence).

Efforts aimed at promoting the psychosocial well-being of employees and encouraging positive group experiences need to be invested in, as this allows for the facilitation of the connections and processes that have establishments between performance and organizational results and their antecedents. Thus, as demonstrated by the literature, the role of managers in having a positive organization is crucial and has a profound influence on the development and success of the employees.

1.3.5 PSYCHOLOGICAL WELL-BEING

The meaning of the term “well-being” points directly to the two terms. This is the involvement of “being” and “well”, living in a good state. Therefore, the measures we use to examine well-being are associated with evaluations about a person’s life, often through judgments made by the individuals themselves (Warr, 2012).

It should be noted that the terms ‘well-being’, ‘pleasure’, and ‘happiness’ are used in overlapping ways in daily language, however, their meanings are differentiated in academic contexts, such as in philosophy or psychology. In Philosophy, the term well-being is generally used to describe what is ultimately good for an individual. The philosophical question of what exactly consists of well-being is of independent interest but of extreme importance in moral philosophy, especially in the scenario of utilitarianism according to which only the moral requirement is that well-being be maximized.

Happiness is often referred to as "the individual’s balance of pleasant over unpleasant experience" (Haybron, 2020, p. 1). Pleasure usually refers to an experience of feeling good and as one constituent of well-being, but it may also be influenced by other factors, such as health, virtue, knowledge, or the fulfilment of desires (Tiberius, 2015).

The 21st century is known for its ever-increasing levels in the amount of stress, caused by the demands of the new economy, transformation, globalization, continuous change, uncertainty, and alienation (Bennis, 2007). If a person fails to cope with these demands, it results in negative stress which in turn might manifest

in poor decision-making, ineffective processes, and an increase in bureaucratic and autocratic leadership (Worrall & Cooper, 2014; Youssef & Luthans, 2012). Contrary, a person's ability to cope with the demands, results in positive stress that increases employees' psychological well-being (Cilliers, & Flotman, 2016), and enables them to be proactive towards the achievement of physical, mental, and emotional well-being (Rothmann & Cooper, 2015).

To better understand the meaning of well-being and its implications on the managers and employees, the historical background of the development and different definitions of well-being are presented (see Figure 5).

Figure 5.

Historical Background of the Definition of Well-Being.

Sources	Definition of wellbeing
Bradburn, 1969; Diener, 2009	Hedonic tradition: which accentuated constructs such as happiness, positive affect, low negative affect, and satisfaction with life.
Rogers, 1961; Ryff, 1995	Eudaimonic tradition: highlighted positive psychological functioning and human development.
Diener (2009)	Most researchers now believe well-being is a multi-dimensional construct.
Shin & Johnson (1978, p.478)	A global assessment of a person's quality of life according to his own chosen criteria

Sources	Definition of wellbeing
Hendry & Kloep (2002)	Well-being is the balance point between an individual's resource pool and the challenges faced.
Crisp & Roger (2017)	Well-being is also known as wellness, prudential value, or quality of life that is in the self-interest of this person.
Shirley et al., 2020.	Well-being is a positive sense of self, spirit and belonging that we feel when our cognitive, emotional, social and physical needs are being met.

Source: Own elaboration.

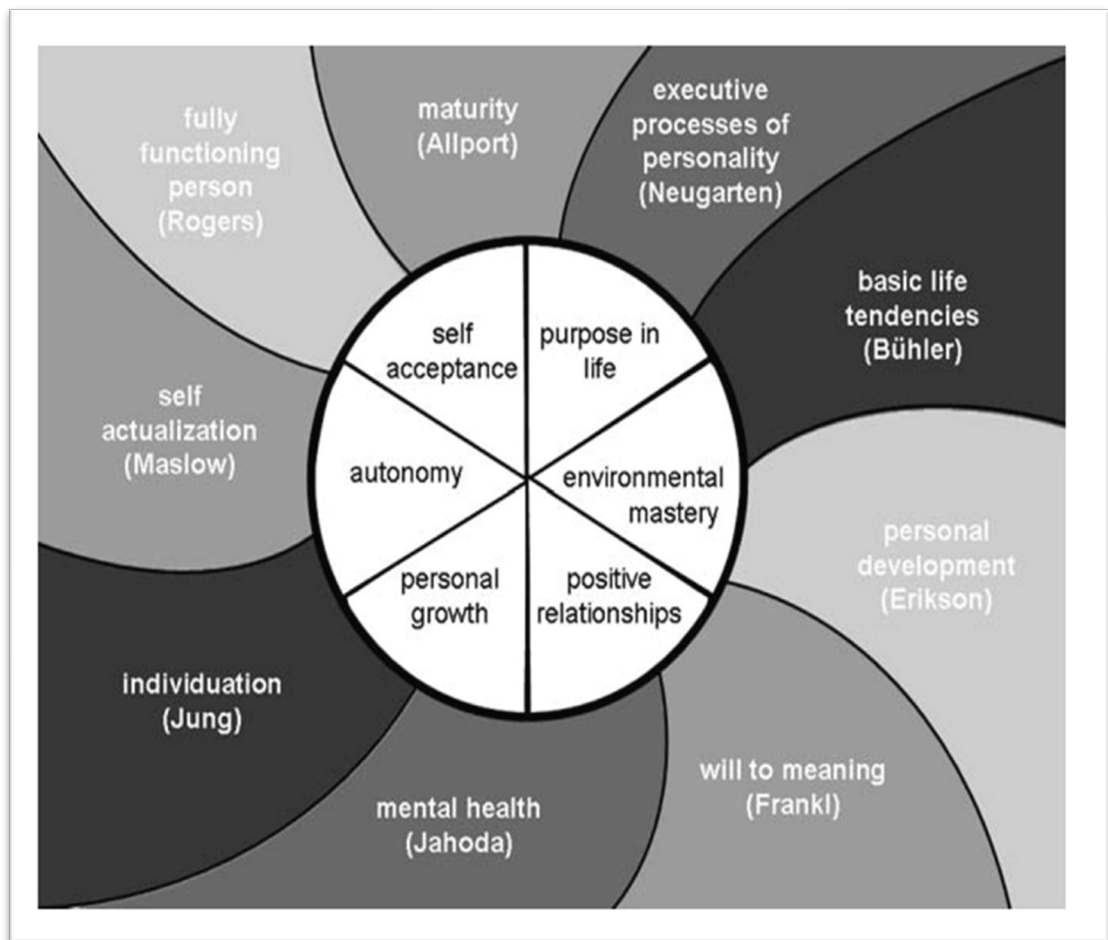
Essentially, stable well-being occurs when individuals possess the psychological, social, and physical resources they need to meet a particular social, physical, and psychological challenge. However, when individuals have more challenges than resources, their well-being declines, and vice-versa.

The Six-factor model of psychological well-being is a theory by Carol Ryff which determines six factors that contribute to a person's psychological well-being, happiness, and contentment (Seifert, 2005). Psychological well-being comprises of relations that are positive with others, personal mastery, a feeling of purpose and meaning in life, and personal development (Ryff, 1989). Well-being in a psychological sense is obtained by the achievement of a state of balance affected by both challenging and rewarding life events (Dodge et al., 2012).

Thus, following the above literature explaining the different definitions of well-being, it is suggested that the role of the principal as being the leading authority at school, can make a profound influence on teachers' well-being and professional development (Figure 6).

Figure 6.

The Structure of Psychological Welfare – Being Reborn.



Source: Ryff & Keyes (1995).

1.3.6 PSYCHOLOGICAL CAPITAL

Psychological Capital (PsyCap) is one of the main factors affecting individuals' psychological well-being and job burnout. Developing an employee's positive psychological state focuses on four distinctive psychological capacities, namely self-efficacy, hope, resilience, and optimism, all of which are referred to as Psychological Capital (Luthans & Youssef, 2007). The four components are: (see Figure 7).

1. Self-efficacy refers to the ability of the employee to mobilize motivation and cognitive resources needed to, within a given context, succeed in executing a specific task (Stajkovic & Luthans, 1998). Studies found a positive relationship between self-efficacy and organizational commitment (Harris & Cameron, 2005).

2. Optimism refers to generally having a positive expectancy and optimistic style in expectancy (Carver & Scheier, 2002; Luthans, 2002b). Research showed that the existence of a relationship between optimism and engagement in employees ultimately leads to higher employee performance (Medlin & Faulk, 2011).

3. The positive motivational state based on an interactively derived sense of successful agency (energy directed on goals) and pathways (goal planning) is referred to as Hope (Snyder et al., 1991). There is a report on research that job performance and contribution to the well-being of employees are predicted by hope (Peterson et al., 2011; Weick & Quinn, 1999).

4. The positive psychological capacity to rebound, come back from uncertainty, conflict, failure, and even positive change are referred to as resilience

(Linnenluecke, 2017). Studies revealed that the existence of a strong positive relationship between resilience and positive emotions occurs in the wake of turbulent conditions (Philippe et al., 2009).

Psychological capital is represented by the positive effective resources possessed by individuals, which enables them to succeed, and aids them in achieving their goals and dealing with the challenges and difficulties they may face (Luthans & Jensen, 2002).

Studies showed that psychological capital was related to a substantial decrease in stress symptoms, intentions to quit, and job search behaviours (Luthans & Youssef, 2007). Furthermore, psychological capital was found to increase organizational commitment, satisfaction (Yildiz. 2018), and workplace well-being (Avey et al., 2010).

The development of positive psychological organizational behaviour in employees is brought about by a leadership style that has an approach that is people-centric (Walumbwa et al., 2010). Hence, it is recommended that managers and principals will adopt such approaches to better develop their organizations.

Figure 7.

Psychological Capital and Beyond

Psychological Capital



Source: Adapted from Luthans, Youseff-Morgan & Avolio (2015)).

1.3.7 CHAPTER SUMMARY

Teachers' professional identity is partly influenced by the principals' roles within the school. We observed how the psychological empowerment in organizations and the principal's self-efficacy may affect teachers' development. In addition, we provided a review of how learning organization takes place.

Senge (1990) developed the learning organization by associating it with the concept of systems thinking and mental models. Kools and Stoll (2016) explain that a learning organization is an ongoing process of integration and collective

interpretation of knowledge. Ultimately, it enhances an organization's collective ability to understand and respond to internal and external changes across the spectrum. Moreover, Odor (2018) refers to the process of learning organizations as organizations that can create, acquire, and transfer knowledge while modifying their behavior to reflect new knowledge and insights. Therefore, a learning organization improve organizational learning by creating structures, strategic elements, and strategic expertise.

In our review, we also focused on elements of positive organizational psychology, wellbeing, and psychological capital as components that lead to better achievements both for the employees and the organization. Hence, organizational leaders are pioneers in developing continuous learning in organizations with the empowerment of each member of the organization as a means to an end. Thus, a learning organization is an organization that requires the extension of the duties and responsibilities of the individual to achieve the desired results.



CHAPTER 4. SCHOOL PRINCIPAL'S LEADERSHIP

This chapter focuses on the school principal's transformational leadership. We elaborate on the theoretical evolution of leadership, its various definitions, and the different types of leadership.

1.4.1 EVOLUTION OF LEADERSHIP

The question of leadership has been discussed thoroughly over the past century throughout many sectors such as business, economics, and politics. The question of who a leader is and how to definitively tackle the leadership meaning has still not reached a consensus among leadership researchers (Esen et al., 2020).

The management of the school as an organization is led by the principal, and thus directly affects the principal's leadership and intention to improve teacher performance (Muliati et al., 2022). According to Novitasari and Asbari (2021), leadership behaviour can affect the performance of teachers in an institution. They clarify that leadership's goal is to find a way that the leader can influence, direct, motivate, and control their employees in such a way that encourages them to complete tasks effectively and efficiently. Therefore, leadership is a process in which a person influences others to become subordinates in achieving a common goal. More specifically, leadership has a significant influence on teacher performance as the right leadership may increase teachers' work motivation (Muliati et al., 2022).

The definition of a leader and the qualities that make up a leader, therefore, have gone through a transition over the past centuries. Comprehending ideals of

leadership that exhibit themselves in great leaders requires a cross-section look at what leadership theories have been during history. In the early stages, leadership centred around one individual. Since then, the theories surrounding leaders and leadership have evolved and changed with the era. Trait theory and behavioural models have given way to ideals such as authentic leadership and environmental influenced leadership. In today's world, the theories invert the traditional way of thinking of leadership to a flattened form of dynamic leadership where leaders are interchangeable depending upon the task.

Notably, it is important to differentiate between leadership and management. Leadership is an influencing relationship built between leaders and followers who in turn impact real changes in a community that reflect their mutual purposes. There are four essential elements comprising leadership: 1) there must be an influence-based relationship, 2) the leaders and followers are regarded as people here, 3) there is real change intended by leaders and followers, and 4) there is the mutual purpose between leaders and followers.

The idea of leadership barely crossed our minds until the late eighteenth century (King, 1990). Following his take on leadership, King's (1990) remark on leadership is frequently talked about but rarely understood. Introspectively, most leadership theories have foci on leadership actions rather than leadership behaviour (Johns & Moser, 1989). Additionally, differing ideals of what leadership is have arisen throughout history, these ideals are heavily correlated with the current paradigm they coincide with (Middlehurst, 2008).

The embryonic started with the “Great Man Theory” (Malakyan, 2014). Perpetuated by this theory is that leaders are born to lead. Early adopters of this theory claimed that certain men (due to gender discrimination at the time women were not part of the research) were leaders from birth (Johns & Moser, 1989). Researchers examining famous leaders from the past such as Napoleon, Genghis Khan, and others concluded that individuals who aim to become leaders, should follow and emulate the historically great leaders of our ancient past (King, 1990).

Scientifically, leadership has seen its origins in sociology with its founding fathers. In the context of religion, politics, and the military, Max Weber set questions concerning the ideas of authority, status, and legitimacy (Max Weber, 1864-1920). Because of unresolved tension between leaders and bureaucracies, he devoted a great deal of thought and attention and increasingly became convinced that an inexorable trend toward rationalization in every sphere had important effects on the problem solving of leaders (Heilbrunn, 1994).

During the 1920s and 1930s, there were efforts focused on strides to identify the difference in traits between leaders and non-leaders. These theories focused on the “what” of leadership and not on the “how”. The trait approach assumes that certain physical, social, and personal characteristics are inherent in leaders (Asrar- & Anwar, 2018).

For the past three decades, the full-range leadership theory (Bass & Avolio, 1995) has dominated the literature concerning his leader-centric theory views work managers as major participants who influence the workers and impact

organizational outcomes (Avolio et al., 1999). The different behaviours supervisors convey while trying to influence their workers are often categorized in terms of three meta categories or leadership styles: transformational, transactional, and passive (Derue et al., 2011).

1.4.2 TYPES OF LEADERSHIP

The full range model developed by Bass and Avolio (1993) includes four leadership styles: transformational leadership, rewarding leadership, avoidant leadership, and non-leadership. Rewarding Leadership: an appropriate reward offered in return for performing the tasks, i.e., the leader causes a person to act on the level of effort rewarding. As such, leadership has an economic perception and is based on the assumption that the work is done (Hollander & Julian, 1978).

Avoidance of leadership is essentially not taking a stand, making decisions, and avoiding any action. Preventive leadership has two patterns. The first is active avoidant leadership in which the leader monitors employee performance just to make sure there is no deviation from the standards and performs corrective action when necessary. The second is passive avoidance leadership in which the leader does not intervene or initiate actions but acts following mistakes, turning to others, or having no choice. In this leadership, the employee is perceived as interchangeable, and the connection with him is not personal. Non-leadership is a function of avoiding managerial responsibilities, indifference to the task and employees, and a tendency to disappear.

A recent study comparing school principals' leadership types focuses on three main leadership types: instructional, distributed, and transformational leadership (Börü & Bellibaş, 2021). Research indicated that instructional leadership has become one of the most studied leadership types in the field of educational management and leadership (Gumus et al., 2020). Instructional leadership has an explicit focus on improving the teaching and learning of schools; a focus that differentiates it from other leadership types, such as distributed and transformational leadership (Marks & Printy, 2003).

Behaviour exerting an idealized influence suggests the leader's charismatic proactive actions, stemming from his/her sense of mission, values and beliefs. Leaders inspire and encourage the people they lead to achieve aims which may have previously seemed impossible, using inspirational motivation, raising their hopes to attain goals side by side with better performance, thus generating a self-fulfilling prophecy (Khan et al, .2022). Intellectual leaders inspire people to deal with problems in new, imaginative ways. They also attend to each person individually, relating to his/her requirements, hopes and abilities, assisting him/her in developing their own capabilities, offering help and guidance (McCleskey, 2014).

Naqshbandi and Jasimuddin (2018) showed that knowledge-oriented leadership influences leaders' knowledge management, generally defined as the construction of infrastructure and the ensuing processes related to innovativeness. Donate and de Pablo (2015) discovered that knowledge-oriented organizational culture affects knowledge management practices, and that leadership reinforces knowledge-related processes. Transformational leadership supports the sharing of

knowledge (Le et al., 2017), constructing an organizational culture encouraging knowledge, learning and innovativeness (Anselmann & Mulder, 2020).

Transformational leaders construct organizational concepts and dreams, form solid ties with employees, motivate them, and offer support and inspiration (Busari et al., 2020). Leaders of that type promote change by developing the appropriate organizational culture (Brandt et al., 2019).

Transformational leadership theory has received extensive scholarly attention since its inception more than 40 years ago and continues to be one of the most actively researched leadership concepts (Dinh et al., 2014; Siangchokyoo et al., 2020).

Studies discussing transformational leadership point out that “the essence of transformational leadership theory is a process whereby the leader builds followers' commitment to organizational objectives and develops followers to be able to accomplish organizational goals” (Siangchokyoo et al., 2020, p.3). Thus, transformational leaders influence the development and transformation of their followers, which in turn enhance the follower and organization performances.

Since 1978, literature on leadership showed the positive effect of transformational leadership style in enhancing the performance and morale of business organizations. As such, studies conducted over the past twenty years has supported the use and efficacy of transformational leadership in school settings. Transformational leadership is a style of leadership centred on leaders who are

establishing new norms, changing employee attitudes, creating a new vision of reality, and making fundamental changes to the culture of the organization. Principals are the leader-heads of the schools and are responsible for transforming school culture so that the organization they lead will meet the increased demands of local, state, and federal stakeholders.

According to Burns (2003), using transformational leadership methods can change employees' attitudes, beliefs, and behaviours, and increase their level of motivation. Using this style of leadership, the leader encourages to achieve higher and better goals and enhance performances (Anderson, 2017). A leader acts in a boundary role to influence the activities of an organized group toward achieving an organizational goal (Tănase, 2020).

Transformational leadership plays a critical role in cultivating knowledge-sharing climates and behaviour, through the support of activities that actively share knowledge. These activities serve as models and opportunity providers for knowledge sharing (Fullwood et al., 2013; Ahmad, 2020). In addition, transformational leaders influence interpersonal trust and organizational learning significantly (Kim & Park, 2019). When transformational leaders demonstrate a personal commitment to achieving the vision they are espousing, the interpersonal trust of their employees is likely to increase because the latter have seen and felt the ties between employees and between leaders and employees (Goodwin et al., 2011). Additionally, Ghasemiyan & Jafari, (2019) defined leadership's role in management as the process of influencing the behaviour of the organization's members to help them manage organizational tasks.

Transformational leadership has other benefits for the organization and its members. For instance, a transformation leadership style is an important strategic factor affecting innovation and creativity (Al Harbi et al., 2019). Likewise, transformational leadership can enhance organizational learning by allowing the organization to learn through experimentation, communication, and knowledge creation (Salas-Vallina et al., 2017). Such leadership, for example, creates self-confidence, intrinsic motivation, inspiration, and creative endeavours and supports innovation, personal development, and social relationships among employees (Al Harbi et al., 2019).

The current study focuses on transformational leadership. We aim to explore its relevance and impact on the learning organization. Research showed that transformational leadership is the third most popular leadership type in educational research over the past four decades (Gumus et al., 2018). Transformational leaders motivate their followers regarding the importance of achieving organizational goals and inspire them to prioritize the success of the organization (Marks & Printy, 2003).

Retrospectively, Elmore (2002, p. 5) declares “For every increment of performance I require of you, I have a responsibility to provide you with the additional capacity to produce that performance”. Elmore (2002) establishes the responsibility that leaders possess to those they are asking to perform and lead. When principals internalize this leadership capacity successfully, they earn the commitment of all those required to work toward the goals they have set. In line with this, Louis et al. (2010) claim that effective leadership is one of the main

requirements in creating a school environment that results in teacher professionalization. Additionally, Hairon & Dimmock (2012) study showed that the professional leadership of managers in schools and the professionalization of teachers are closely related such that effective and professional leadership leads to the professional development of teachers.

Effective leaders motivate employees through a variety of methods, by paying attention to the needs of individuals, and by promoting the ability to adapt to new situations (Kotter, 2017). At schools, principals' leadership should effectively direct the staff towards the goals of the school. Exploiting a transformational leadership style or management based on personality traits leads to increasing the effectiveness and efficiency of the school and ultimately the education organization.

Within the same lines, Belan & Niron (2021) assert that principal transformational leadership has a profound impact and changes school organizations. It occurs as the principal carries out his duties and uses all the resources owned by the school to achieve school organizational goals, and consequently benefit the entire educational staff (Andriani et al., 2018; Balyer, 2012; Li & Liu, 2020). Moreover, Balyer (2012) points out that transformational leadership is a leadership style that creates bonding and commitment, and makes them more involved with the organization's vision.

This kind of leadership also focuses on encouraging and inspiring teachers to achieve school goals (Anderson, 2017). Hence, the main goal of transformational

leadership is to create a climate beneficial to the development of innovation and creativity in a way that empowers followers to perform effectively by building their commitment to new values and developing followers' skills and beliefs (Cristina, 2012).

Similarly, Bellibaş et al., (2021) point out that transformational leadership seeks to improve organizational culture by developing a new vision and revising shared values, by emphasizing innovation for achieving these goals. Transformational leaders, therefore, aim to achieve this change by increasing the staff's motivation, enthusiasm, and will. As such, they also pay close attention to everyone's needs, encourage and support their efforts to develop creative ideas and implement them, and consequently link their current needs to the organization's goals and mission (Andriani et al., 2018; Bass et al., 1999).

Many studies showed a positive association between transformational leadership and teacher performance (Li & Liu, 2020; Meneghel et al., 2016; Muliati et al., 2022; Shava & Heystek 2021) point out that leadership theory enhances development and the achievement of change. It occurs due to its emphasis on action and behaviours that increase the followers' motivation to perform beyond what is usually expected of them. In addition, this kind of leadership style emphasizes the followers' needs in order to aid them to reach their fullest potential (Northouse, 2010).

Alongside the importance of being transformational leaders, principals should provide a productive learning atmosphere for both teachers and students.

They are also pivotal in the process of building trust among teachers and should encourage cooperation among their entire staff. Researchers and practitioners have long recognized that the role of the principal is crucial for school improvement (Ghasemiyan & Jafari, 2019). Principals today have enormous responsibilities as they strive to effectively lead their schools and overcome the many educational challenges facing them (Brown, 2019).

Bass (1985) defines transformational leadership as increasing the interest of the staff to achieve higher performance through developing the commitment and beliefs in the organisation. Bass (1985) also showed that it is the kind of leadership that transforms employees to rise above their self-interest by altering their morale, ideas, interests, and values, motivating them to perform better than initially expected. Thus, transformational leadership refers to a set of behaviours of leaders that should lead to higher motivation and increased performance from employees (Leithwood & Jantzi, 2008). More specifically, they described it as the ability to restructure, develop a shared vision and distribute leadership, while building a school cultured climate that promotes successful academic change (Leithwood & Jantzi 2008).

In his book, *Leadership* James MacGregor Burns (2003) coined the term transformational leadership, to define a process where leaders and followers work together to advance motivation and morale. According to Burns (2003), transformational leadership is a style of leadership in which the leader inspires followers to be motivated and enhance levels of achievement and performance. It

also transforms follower attitudes, beliefs, and behaviours, and aid them to reach a higher realm of motivation.

Greiman et al. (2007) established four main factors of transformational leadership:

1. **Idealised influence**, such leaders have charisma and provide followers with a sense of mission. The followers are dragged and dominated positively by the leader who has high moral standards and ethical behaviour.

2. **Inspirational motivation** is used by leaders who communicate with high expectations to followers by motivating them to commit to a shared vision of the organisation.

3. **Intellectual stimulation** includes leaders supporting followers to be creative and innovative in problem-solving skills. This factor encourages followers to challenge their own beliefs and values.

4. **Individual consideration** where leaders provide supportive conditions for their followers and show individualised consideration when they perform as mentors and motivate followers to reach their own goals and potential.

1.4.3 CHAPTER SUMMARY

The ongoing question of who the leader is, and how to address the meaning of leadership with a certainty still has not reached a consensus in leadership

research.

Understanding the leadership ideals that manifest themselves in great leaders requires a cross-sectional look at what leadership theories and principles have historically been.

Trait theory and behavioural models have led to ideals such as authentic leadership and environmentally influenced leadership. Internally, most leadership theories focus on leadership actions rather than leadership behaviour.

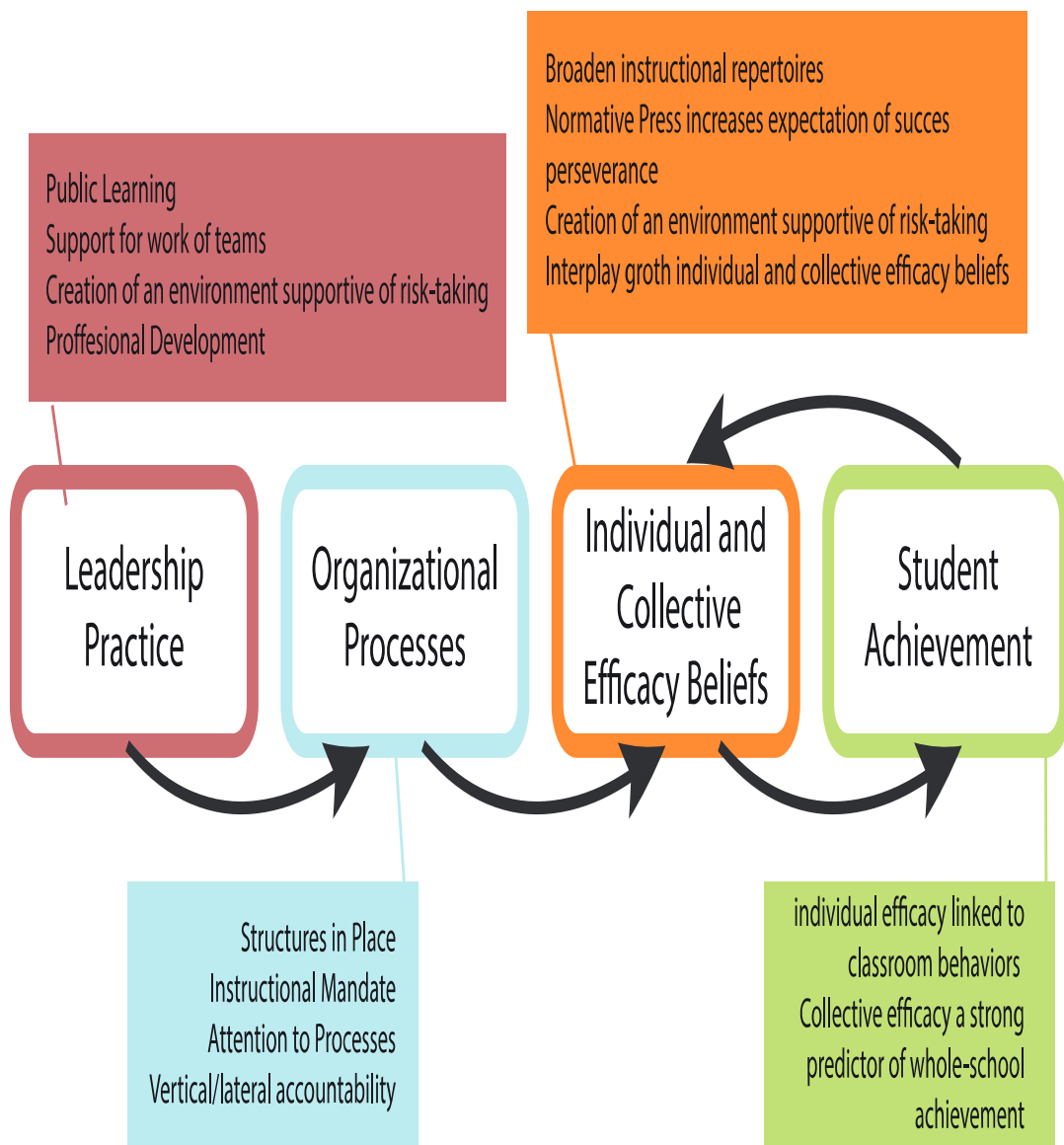
The current review demonstrated the importance of transformational leadership, and its relevance and impact in the learning organization. More specifically, it highlighted the significance of transformational leadership for professional development in education. Such leaders establish new forms, influence employee attitudes, and make fundamental changes to the culture of the organization. Principals are responsible for transforming school culture so that the organization they lead will adjust to the ongoing demands of the society and state.

Principals are vital in the process of building trust among teachers and should encourage colleagues to work together. Studies point out the role of the principal in school improvement and development (Ghasemiyan & Jafari, 2019). Principals constantly face challenges and are expected to balance between their responsibilities and their aim to effectively lead their schools to success (Brown, 2019).

An illustration of how the school principal's transformational leaderships affects organizational processes is presented in figure 8.

Figure 8.

School Principal's Leadership.



Source: own elaboration.

SECTION 2. RESEARCH OBJECTIVES AND HYPOTHESES

INTRODUCTION

In this section we will discuss the context and objectives of the present research following by detailing the hypotheses that will be examined.

2.1. Context of research

The professional development of teaching staff is the key to the advancement of education systems (Ainley & Carstens, 2018). The school is the central arena in which the teacher develops. The professional development processes of teachers that take place within the school enable members of the educational staff to grow professionally, while also contributing to the advancement of their educational work. Therefore, enabling teachers to learn within the school system, and to receive training that is tailored to their needs is of great importance.

Over the years, the Israeli education system has sought to promote the quality and level of teaching in schools by implementing TPD (Pomson & Grant, 2004). Thus, in 2002-03, the Israeli Ministry of Education established centres for the development of teaching staff, namely PISGAH, which main purpose was to execute the delivery of professional development programs to teachers (Israeli Ministry of Education, 2010). Each PISGAH Centre pedagogical team takes part in the process of studying schools as learning organizations and developing their human capital. In addition to professional training courses and qualifications, the PISGAH Centers provide detailed TPD status reports that enable the school principal to make informed decisions concerning the development of the school's teaching staff. However, the PISGAH learning Organization Program (LOP) (see Appendix 4) is not fully and uniformly implemented by all school principals

affiliated with each centre, and there is a need to examine its impact on TPD as a function of the degree to which it is implemented by the school principal.

In addition, while several studies have focused on the association between school-level variables and teachers' participation in professional development activities in Israel, to our best knowledge, there has been no multi-level research that examined factors at the levels of both teachers and principals, that may serve as predictors of professional development of the teaching staff.

2.2. OBJECTIVES AND RESEARCH HYPOTHESES

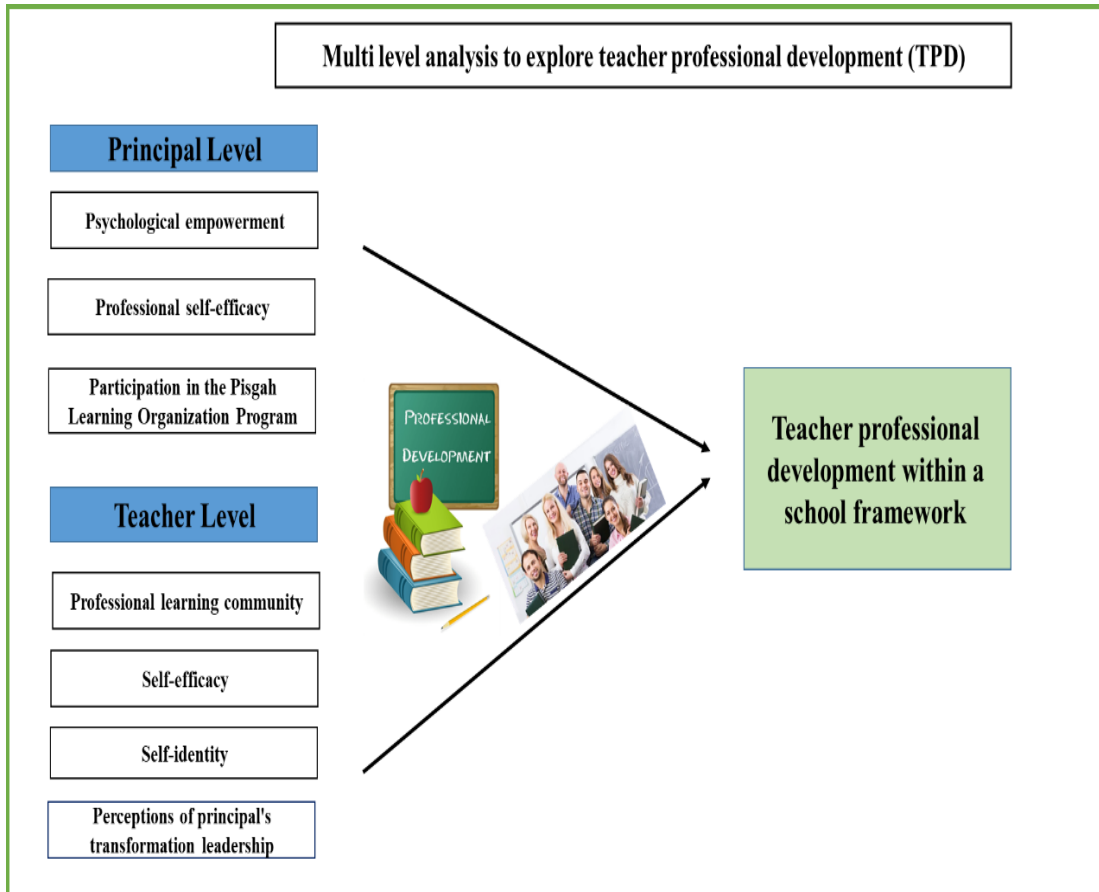
2.2.1 OBJECTIVES

It would be convenient to distinguish between a main goal or objective that encompasses all the specific objectives.

The objectives of this study are to examine the factors that are associated with TPD at the individual level of the teacher as well as at the broader level of the school. Specifically, the **first objective** of the present study is to examine how the teachers' self-efficacy, professional identity, level of participation in school's professional learning communities, and their perceptions of the principal's transformational leadership patterns affect their professional development. A **second objective** of the present study is to examine how the principal's psychological empowerment and professional self-efficacy influences the TPD of the school's teachers. The **third objective** of the study is to examine how the level of the principal's participation in the PISGAH "Learning Organization Program" (LOP) impacts the TPD of the school's teachers (See Figure 9).

Figure 9.

A Multilevel Analysis of Teachers' Professional Development.



Source: own elaboration.

2.2.2 RESEARCH HYPOTHESES

Based on the specified research objectives, we have postulated the following hypotheses concerning factors associated with TPD.

Factors associated with TPD examined at the Teacher's Level

Our first four hypotheses concern factors that are associated with TPD and that will be examined at the teacher's level.

Hypothesis 1- Positive correlations will be found between Professional learning community and Teacher professional development.

Reinforced by other studies, the hypothesis chosen shows that professional learning communities can lead to the creation of spaces for ongoing, sustained professional development (Vangrieken et al. 2017), a sharp contrast from the often fragmented professional development programmes that many teachers are exposed to (Cobb et al. 2020). Professional learning communities can be a place for teachers to share experiences, innovations, content, problem solving, and to build attachments among their peers as a means of developing their competencies and professionalism (Juliasandi & Rohman, 2018). It is also a medium through which teachers can develop learning methods for their students (Cheng & Tsui, 1999).

Hypothesis 2- Positive correlations will be found between Perceptions of principal's transformation leadership patterns and Teacher professional development.

Transformational leadership strongly encourages teachers to raise their capacities toward quality of teaching and instruction improvement (Northouse, 2010). Louis

et al. (2010) claim that effective leadership is one of the main requirements in creating the school environment that results in teacher professionalization.

Furthermore, transformational leaders pay attention to the needs of others as well as their potential for development. These leaders create a better environment that values individual differences (Anderson, 2017). The usage and efficacy of transformational leadership in schools has been validated by research in recent years. Effective leadership, for example, has been identified as a critical component in establishing a school atmosphere and professional learning community conducive to teacher professionalization (Hilel & Ramírez-García, 2022; Li & Liu, 2020).

Hypothesis 3. Positive correlations will be found between Self-efficacy and Teacher professional development.

The self-efficacy of teachers is vital to the success and sustainability of teachers because it is in direct relation with the knowledge and skills required for effective teaching (Kraut et al., 2016). Teachers with higher levels of self-efficacy tend to experience greater increased flexibility to cope with obstacles, perseverance, and an increased self-accomplishment feeling (Bandura, 1997).

Hypothesis 4. Positive correlations will be found between Professional identity and Teacher professional development.

Professional identity is dynamic and develops in school. With increased practice and knowledge, experience understandably reshapes the professional identity of teachers over a span of time. The majority of recent literature on the education of teachers emphasizes the importance of identity in the development of

teachers (Berger & Lê Van 2019; Eales & Bradley 2018; Meihami, 2021). which reinforces our hypothesis and emphasizes the importance of examining how TPD is influenced by teacher's professional identity.

In addition to the above hypotheses, the present study will examine the influence of socio-demographic factors related to the private tutor (age, gender, marital status, education and seniority) on TPD.

Factors associated with TPD examined at the Principal's Level

Our second objective was to examine factors that are associated with TPD at the school principal's level. Thus, the following hypotheses will be tested:

Hypothesis 5. Positive correlations will be found between psychological empowerment and teacher professional development.

One of the organization's key factors to success is psychological empowerment (Lee & Nie, 2014; Yang et al., 2019). Research shows that the empowerment of school leaders ultimately enables working conditions that enhance teachers' psychological empowerment and their subsequent outcomes at work (Lee & Nie, 2014; Van Der Hoven et al., 2021).

Hypothesis 6. Positive correlations will be found between Professional Self-efficacy and Teacher professional development.

According to Tschannen-Moran & Gareis (2004), principal professional self-efficacy is defined as a judgment of the person's capabilities to set a particular course to produce the outcomes desired in the school he or she leads. The responsibilities of the principals are covered by this definition. Therefore, in line with the general concept of the construct, the self-efficacy of the principal is

conceptualized as a multidimensional construct. In the field of TPD, research concerning the principal's self-efficacy is lacking (Bellemans & Devos, 2021; Gümüş & Bellibaş, 2020). Therefore, one important objective of the present study is to ascertain the effect of the principal's self-efficacy on the professional development of teachers, thus hypothesizing a positive relationship between the two factors.

Principal's participation in the PISGAH “Learning Organization Program” (LOP) and TPD

The third objective is to examine how the level of the school principal's participation in the PISGAH “Learning Organization Program” (LOP) impacts the TPD of the school's teachers. Hence, we propose the following hypothesis:

Hypothesis 7. Positive correlations will be found between the implementation of the learning organization program and Teacher professional development

According to Kools and Stoll (2016), learning organizations refer to creating a continuous learning environment opportunities for all staff, supporting and promoting team learning and collaboration among staff, and establishing embedded systems for collecting and exchanging knowledge and learning. When a school becomes a learning organization it attains a competitive advantage that can attract and retain the best talents (Odor, 2018). Research suggests that opportunities presented by professional development are more meaningful when the leaders of the school use these opportunities as part of an organizational strategy for

establishing the instructional capacity of teachers (Brown, 2019; Bellibaş et al., 2021).

Thus, we expect that principals who undertake the “Learning Organization Program” will produce higher levels of professional development among teachers of their school.

In addition to the above hypotheses, the present study will examine the impact of socio-demographic factors related to school principal (age, gender, marital status, education and seniority) on TPD.

Hypothesis 8. Teacher professional development (TPD) will be predicted by the principal's Psychological Empowerment, Professionals Self-efficacy, and Implementation of the “Learning Organization Program”, above and beyond the teacher's perceptions of principal's transformation leadership patterns, Professional learning community, Self-efficacy, and Professional identity.

A study conducted in Turkey (Gumus, 2013) focused on teachers nested within schools, using teacher-related variables as well as school-related variables found that many teacher- and school-level factors were significantly associated with the level at which teachers participated in professional development activities. As leadership practices are associated with creating a learning environment and providing meaningful professional development (Elmore et al., 2014), we posit that the variables measured at the principal's level will contribute to TPD beyond the contribution of variables at the teachers' level.

SECTION 3. METHODOLOGY

3.1. RESEARCH DESIGN

We have conducted a cross-sectional research design. Cross-sectional studies are carried out at a one-time point or over a short period. They are usually conducted to estimate the prevalence of the outcome of interest for a given population, commonly for education research planning. Data can also be collected on individual characteristics, including exposure to psychological factors, alongside information about the outcome. In this way, cross-sectional studies provide a ‘snapshot’ of the outcome and the characteristics associated with it, at a specific point in time (Levin, 2006).

In our study, the conceptual framework involves variables at two levels: the individual and the school level. These levels are hierarchical, in that respondents are nested within schools. A hierarchical linear model (HLM) is particularly suitable for these analytical conditions; HLM enables the simultaneous estimation of relationships of variables at multiple levels (Raudenbush & Bryk, 2002; Garson, 2013).

It borrows strength from all the data in each of the schools and makes it possible to estimate effects at each level, thereby enabling us to test the school effect over and above the individual-level effect (Raudenbush & Bryk, 2002).

In addition to HLM, the methodology applied in the present study was non-experimental, descriptive, quantitative, and correlational (Garson, 2013).

3.2. SAMPLE DESCRIPTION

A sample of 36 principals and 412 teachers were randomly selected from a population of 1700 principals and 80.000 teachers working at Jewish and Arab elementary, state, and religious schools in Israel under the supervision of the Ministry of Education, during the 2020 school year. The main characteristics of the principals and the teachers included in this study are described in Table 1. The majority of the teachers were women (86.17%), married (83.98%), and at an average age of 41.99 y/o ($SD = 9.14$). Most of them worked in primary schools (89.81%), in the state education (75.49%), and the rest worked at the special education (10.19%) and Arab education (24.51%). About 43% owned a Master of Arts (M.A.), about a third owned a Bachelor of Education (B.Ed.) (32.04%) or a Bachelor of Arts (B.A.) (22.33%), and the rest owned Doctor of Philosophy (Ph.D.) (0.49%), were senior teachers (1.46%) or other (0.49%). Almost all the teachers went to advanced studies (93.93%) and two-thirds of them were part of a professional team or age group (66.26%). The average seniority as a teacher was 14.56 years ($SD = 10.13$) and the average seniority at the current school was 9.79 years ($SD = 8.34$). As for the principals, the majority were women (75%), married (80.56%), at the average age of 48.58 y/o ($SD = 5.89$). Most of the principals worked at the primary schools (86.11%) in the state education (77.78%) and the rest worked at the special education (13.89%) and the Arab education (22.22%). Almost all the principals' previous roles were in education and training (86.11%), and the rest were teachers (8.33%), high school teacher (2.78%), or managers (2.78%). Most of the principals owned an M.A. (88.89%), and the rest owned a B.Ed. (5.56%) or a Ph.D. (5.56%). The average seniority as a teacher was 23.44 years ($SD = 6.57\%$), and the average seniority as a principal was 8.56 years ($SD =$

5.89). Most of them worked in medium-sized schools (61.11%) and the rest at big (25.0%) or small (19.89%) sized schools. The average number of teachers at their school was 36.92 (SD = 10.49), and most of them (91.67%) had met with PISGAH consulting team.

Table 2.*Main characteristics of the study sample*

Baseline characteristics	Teachers (N=412)		Principals (N=36)	
Age, Mean (SD), range	41.99 (9.14), 22-66		48.58 (5.89), 36-58	
	f	%	f	%
Gender, No.				
Women	355	86.17	27	75.0
Men	57	13.83	9	25.0
Marital Status, No. (%)				
Divorced	23	5.58	5	13.89
Married	346	83.98	29	80.56
Single	41	9.95	1	2.78
Widow	2	0.49	1	2.78
Work framework, No. (%)				
Primary	370	89.81	31	86.11
Special education	42	10.19	5	13.89
Sector				
Arab Teachers	101	24.51	8	22.22
Jewish teachers	311	75.49	28	77.78
Education				
B. Ed.	132	32.04	2	5.56
B.A.	92	22.33	0	-
M.A.	178	43.20	32	88.89
Ph.D.	2	0.49	2	5.56
Senior teacher	6	1.46	0	-
Other	2	0.49	0	-
Advanced study, No. (%)				
Years as a teacher, Mean (SD), range	14.56 (10.13), <1-45		23.44 (6.57), 10-34	
Years as manager, Mean (SD), range	N/A		8.56 (5.89), 1-5	
Years at school, Mean (SD), range	9.79 (8.34), <1-45			

Table 3.*Main characteristics of the study sample (continued).*

Baseline characteristics	Teachers (N=412)		Principals (N=36)	
	f	%	f	%
Part of a profession or grade team, No. (%)	273	66.26		
Previous role				
Education and training	N/A		31	86.11
High school teacher	N/A		1	2.78
Management	N/A		1	2.78
Teacher	N/A		3	8.33
School size				
Big	N/A		9	25.0
Medium	N/A		22	61.11
Small	N/A		5	19.89
Number of teachers, Mean (SD), range	N/A		36.92 (10.49), 20-56	
Had met with the consolation meeting, No. (%)	N/A		33	91.67

Notes. B. Ed.: Bachelor of Education; B.A.: Bachelor of Arts; M.A.: Master of Art; Ph.D.: Doctor of Philosophy; N/A: Not Applicable.

3.3. IDENTIFICATION AND OPERATIONALIZATION OF VARIABLES

This study has several independent variables. First, sociodemographic data (i.e. age, gender, marital status, education) and work characteristics (i.e. work framework and sector, seniority and size of school) will be examined.

In addition, four independent variables namely: self-efficacy (Shoulders & Krei, 2016) professional identity (Fisherman & Weiss, 2008), professional learning community (Brown, 2019), and perceptions of the principal's transformational leadership patterns) will be examined at the "Teacher's level". Additionally, three independent variables: namely, psychological empowerment (Yang et al., 2019). Professional self-efficacy (Brama, 2004), and level of participation in the "PISGAH learning organization program" - LOP) will be examined at the "Principal's level".

This study has one dependent variable: Namely, "Teacher professional development" -TPD (Creemers et al., 2012).

3.3.1. TECHNIQUES AND INSTRUMENTS

Technique

The technique used was the internal coherence assessment protocol (ICAP) framework (Elmore et al., 2014) to measure and analyse factors that promote professional development among teachers. Specifically, certain items from the assessment protocol were adopted to measure TPD, teachers' self-efficacy, professional learning community, and the teachers' perceptions of the principal's transformational leadership patterns (De Vaus & de Vaus, 2013).

Instruments

Teachers' questionnaires

The following questionnaires were filled out by the teachers (see table 3):

Socio-demographic and work characteristics: included the following questions and answer categories: age (years), gender (women, men), marital Status (divorced, married, single, widow), education (the highest certificate earned: B.Ed., B.A., M.A., Ph.D., Senior teacher, other), work framework (primary, special education), sector (Jewish, Arab), type of school (state elementary, religious elementary), seniority as a teacher (years), years at school (number of years as a teacher in the current school), part of a professional team or age group (yes/no).

Teacher professional development, the dependent variable, was assessed by 6 items, for example: "My professional development over the past year has had a close relationship with the school's key goals for this year". Answers for each item range from 1 (strongly disagree) to 5 (strongly agree) and 6 (irrelevant). The average score of the 6 items was used to describe the level of the TPD (Elmore et al., 2014; OECD, 2014). Reliability of the instrument in this study was Cronbach's alpha =.89.

The professional learning community was assessed by 14 items. A sample item includes "Teachers in this school work collectively to plan school improvement". Answers for each item range from 1 (rarely or never/ Not agree at all) to 6 (More than once a week/Totally agree). The average score of the 14 items was used to describe the teacher's professional learning community level (Elmore

et al., 2014; OECD, 2014). Reliability of the instrument in this study was Cronbach's alpha = .92.

Self-efficacy was assessed by 6 items. For example: "How confident are you in using a variety of assessment methods?" Answers for each item range from 1 (not at all safe) to 5 (totally safe) or from 1 (not agree at all) to 6 (totally agree). The average score of the 6 items was used to describe the teacher's self-efficacy level. (Elmore et al., 2014; OECD, 2014). Reliability of the instrument in this study was Cronbach's alpha = .87.

Professional identity A professional identity questionnaire was used (Fisherman & Weiss, 2008). This questionnaire examines teachers' confidence in their professional choice, their sense of self-fulfillment as teachers, and the extent to which they see their profession as a mission and a challenge. The original questionnaire includes 12 items. In the present study, only 8 items were selected. A sample item includes "It is important to me to be a teacher". Teachers were asked how much they agreed with the items on a five-point scale (ranging from 1: absolute disagreement to 5: full agreement). Cronbach's alpha = .87

Perceptions of the principal's transformation leadership patterns were assessed by 16 items. For example: "The school principal sets a clear goal for teachers' team meetings". Answers for each item range from 1 (strongly disagree) to 5 (strongly agree). The average score of the 16 items was used to describe the teacher's Perceptions of the principal's transformation leadership patterns level

(Elmore et al., 2014; OECD, 2014). The reliability of the instrument in this study was Cronbach's alpha = .96.

Table 4.

Summary of measures used at the teacher's level and their reliabilities.

Scale name	Number of items	Cronbach's alpha	Authors
Socio-demographic and work characteristics	10	N/A	N/A
Teacher professional development	6	.89	Elmore et al. (2014)
The professional learning community	14	.92	Elmore et al. (2014)
Self-efficacy	6	.87	Elmore et al. (2014)
Professional identity	8	.87	Fisherman & Weiss (2008)
Perceptions of the principal's transformation leadership patterns	16	.96	Elmore et al. (2014)

Notes. N/A: Not Applicable.

Please note that the full questionnaire can be found in Appendix 2.

Principals' questionnaires

The following questionnaires were filled out by the school principals (see table 4):

Socio-demographic and work characteristics: included the following questions and answer categories: age (years), gender (women, men), marital Status (divorced, married, single, widow), education (the highest certificate earned: B.Ed., B.A., M.A., Ph.D., Senior teacher, other), work framework (primary, special education), sector (Jewish, Arab), type of school (state elementary, religious elementary), seniority as a manager (years), previous role (education and training,

high school teacher, management, teacher), school size (big, medium, small), number of teachers (the total number of teacher in the principal's school), met with the PISGAH consolation team (yes/no), and participation in the "PISGAH Learning Organization Program" (yes/no).

Psychological empowerment was assessed by 10 items. For example, " I am confident about my ability to do my job". Answers for each item range from 1 (very strongly disagree) to 7 (very strongly agree). The average score of the 10 items was used to describe the level of the principal's psychological empowerment (Spreitzer, 1995). Reliability of the instrument in this study was Cronbach's alpha = .88

Professional self-efficacy was assessed by 25 items. A sample item includes " I have significant influence over what happens in my department". Answers for each item range from 1 (not at all able) to 7 (surely capable). The average score of the 25 items was used to describe the level of the principal's professional self-efficacy (Brama, 2004). Reliability of the instrument in this study was Cronbach's alpha = .98.

Implementation of the "PISGAH Learning Organization Program". For the present study, 4 questions were developed in order to assess the principals' level of use and implementation of the Pisgah learning organization program in their school. A sample item includes " Do you think the findings of the evaluation will serve as a basis for making future decisions with all relevant factors regarding the professional development processes at your school?". Answers for each item range from 1 (Not at all) to 4 (Very much). The average score of the 4 items was used to

describe the level of the principal's Implementation of the “Learning Organization Program (Israeli Ministry of Education, 2010). The reliability of the instrument in this study was Cronbach’s alpha = .74.

When a questionnaire is developed, it is necessary to indicate that the content analysis was carried out by a group of experts, who issued a value judgment on it (indicating appropriate or inappropriate items), the Aiken v or the Kappa index can also be included to show the degree of agreement of the judges.

Table 5.

Summary of measures used at the principal's level and their reliabilities.

Scale name	Number of items	Cronbach’s alpha	Authors
Socio-demographic and work characteristics	12	N/A	N/A
Psychological empowerment	10	.88	Spreitzer (1995)
Professional self-efficacy	25	.98	Brama (2004)
Implementation of the "PISGAH Learning Organization Program"	4	.74	Own elaboration

Notes. N/A: Not Applicable.

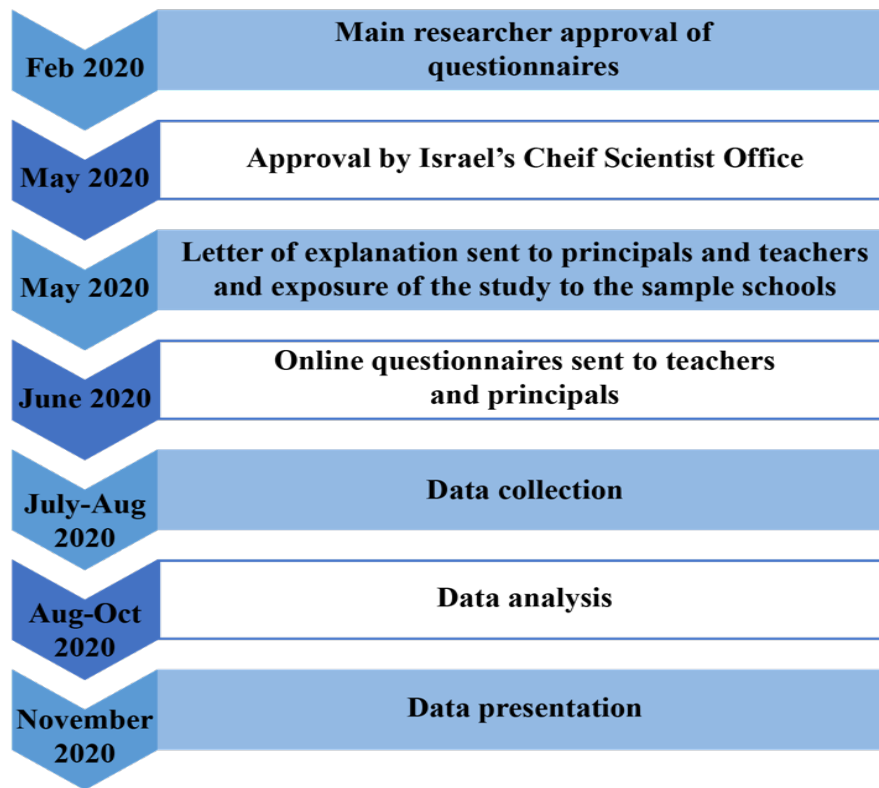
Please note that the full questionnaire can be found in Appendix 3.

3.4. PROCEDURE

The study was approved by the Ethics Committee of Israel's Chief Scientist Office (see Appendix 1), following approval by the main researcher accompanying the present study. The aims of the study deal with different elements at both the teacher's and the principal's level affecting professional development, expanded upon in the proposal sent to Israel's Chief Scientist Office. The structure of the study included two central populations leading the Israeli education system – teachers and principals. Following the Chief Scientist's approval, teachers and their principals were selected randomly from the Ministry of Education's relevant lists. A letter was sent to those schools, explaining the study and its contribution to teachers' professional development. Following informed consent agreements by teachers and principals, a message with an online link was sent to the principals, who passed them on to the teachers in their schools. The participants' answers were collected by the main researcher with no participant ID. Each school had an ID code for multi-level analysis at a later stage. Data collection from both teachers and principals took place online, during May-June 2020 (see Figure10).

Figure 10.

Timeline of data collection.



3.5. DATA ANALYSIS

The data were analyzed separately for the teachers and the principals who participated in this study. All variables were analyzed for normalcy. Skewness and Kurtosis showed that the data is approximately normally distributed. Thus, data was analyzed using parametric tests. Descriptive characteristics were produced using means, standard deviations, and ranges for the continuous variables, and frequencies for the discrete variables.

The associations between the demographic characteristics and the dependent variable were assessed using independent sample t-tests, and ANOVA, Pearson correlations. The correlations between the study variables were assessed

using Pearson tests. Hierarchical linear regressions were used in order to assess the most important variables (Perceptions of principal's, transformation leadership patterns, Professional learning community, self–efficacy and professional identity) for predicting the TPD.

In each regression, the first block contained the demographic variables that showed significant association with TPD, and the second block contained the demographic and the core variables.

Multi-level modelling (HLM) was conducted which assessed the effects of principals' level on the teachers' level. HLM can be used when individuals are nested within groups, as this type of modeling makes it possible to explain within-group variation (Raudenbush & Bryk, 2002). In this model, the dependent variable was TPD as completed by teachers, and the independent variables were the teachers' and principals' variables combined. The significance level was considered below 0.05. SPSS version 25 was used for data analysis.

3.6. ETHICAL CONSIDERATIONS

The Chief Scientist of the Ministry of Education in Israel, which includes a team of experts in science, education, and legal advice, expressed their willingness to conduct this study and sent a formal confirmation of the study after reading the research rationale and its importance to the education system in Israel and around the world.

The research was conducted after receiving the appropriate approvals from the Ministry of Education. All participants approved a digital informed consent form as a preliminary condition for completing the online questionnaire. The informed consent detailed that all data collection requires the approval of the participants, as well as their voluntary participation and that participants have the right to withdraw from the research at any time. In addition, the informed consent made assurance of keeping the confidentiality of the information and the anonymity of the respondents, provided information on the research goals and topics as well as the methods and intended uses of the research, and ensured the researcher's objectivity based on context-adapted procedures in obtaining appropriate data.

SECTION 4. RESULTS OF THE RESEARCH

INTRODUCTION

The results section will be divided to three chapters. At the first chapter, the results of the analysis of the variables at the teacher level will be presented, at the second chapter the analysis of the variables at the principal level will be presented, and the third chapter will present the results of the HLM analysis.

STUDY 1. RESULTS OF THE EMPIRICAL RESEARCH. TEACHER LEVEL

4.1.1 INTRODUCTION

At the beginning of this chapter, a preliminary analysis will be presented, including descriptive statistics for the teachers' level variables and associations between demographic characteristics and TPD. The associations between the demographic characteristics and the dependent variable were assessed using independent sample t-tests, ANOVA and Pearson correlations. Next, Pearson correlations and a regression model will be used to examine hypotheses 1-4. Skewness (-.82) and kurtosis (-.14) for the dependant variables were acceptable.

4.1.2 DESCRIPTIVE RESULTS

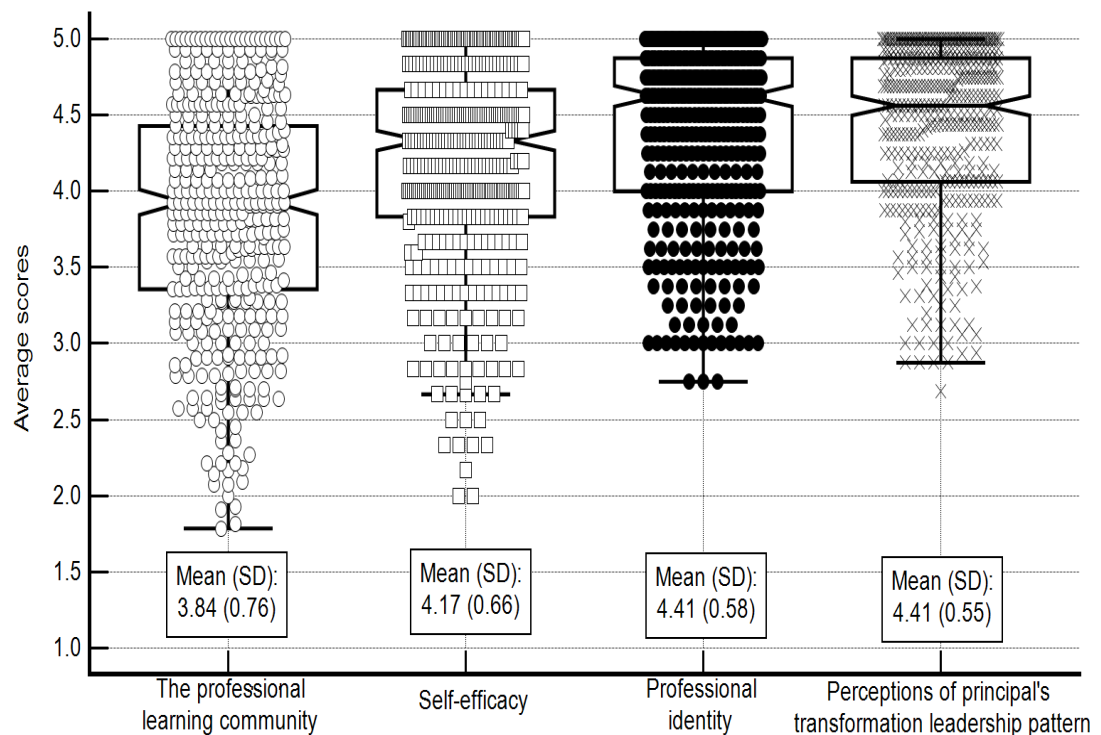
Tables 5 through 9 present the means, standard deviations, and ranges for the teachers' study variables. The tables include these indices for each item separately, as well as for the total score of each scale.

Although all scales total scores were in the highest possible range, the average scores of the perceptions of the principal's transformation leadership patterns ($M = 4.42, SD = 0.56$) and the professional identity ($M = 4.41, SD = 0.82$) were a little higher in comparison to the Self-efficacy ($M = 4.18, SD = 0.66$) and the Professional learning community ($M = 3.85, SD = 0.77$). The standard deviations indicate that the response trend is homogeneous.

Figure 11 presents the distribution of teachers' scores on each of the independent variables.

Figure 11.

Main variables: Box-and-whisker graph (n=412).



Notes: SD, standard deviation; Higher score represents higher levels of the independent variables; the central box represents the values from the lower to upper quartile (25 to 75 percentile); the

vertical line extends from the minimum to the maximum value; the middle line represents the median.

An examination of the means and standard deviations of each of the items in table 6, shows that the items of the "Perceptions of principal's transformation leadership patterns" are well reflected in the total score, and there is no unusual item.

Table 6.

Means, standard deviations, and ranges: The Perceptions of principal's transformation leadership patterns scale.

	N	M	SD	Range
Items				
<i>Total Score</i>	395	4.42	.56	2.69-5.00
1. The principal at this school gives teacher teams a clear and meaningful purpose for their time together	409	4.46	.87	1-5
2. The principal provides adequate time for teacher teams to meet	404	4.48	.84	1-5
3. The principal ensures that teacher-meeting time is protected and maintained consistently throughout the year.	400	4.47	.77	2-5
4. The principal asks probing questions about teaching and learning.	409	4.37	.91	1-5
5. The principal invites input from faculty in discussions about teaching and learning	405	4.41	.91	1-5
6. The principal communicates a clear vision for teaching and learning at our school.	403	4.48	.86	1-5
7. The principal is knowledgeable about effective instructional practices.	405	4.43	.86	1-5
8. The principal Conducts classroom visits to improve teaching	403	4.18	1.02	1-5
9. The principal supports teacher teams in following through on instructional decisions made by the group.	401	4.27	.99	1-5
10. Teachers feel comfortable experimenting with untried teaching approaches, even if they may not work.	405	4.07	.93	1-5
11. Making mistakes is considered part of the learning process in our school	410	4.07	.99	1-5
12. People in this school are eager to share information about what does and does not work.	405	4.13	.94	1-5
13. The principal at this school listens attentively.	403	4.47	.91	1-5
14. The principal provides teacher teams with the right balance of direction and independence.	401	4.40	.90	1-5
15. People in this school are usually comfortable talking about problems and disagreements about teaching and learning	399	4.18	1.06	1-5
16. The principal is directly involved in helping teachers address instructional issues in their classrooms	400	4.37	.96	1-5

An examination of the items of the "Professional learning community" scale in table 7, shows that the agreement with the item #14 "Watching lessons of other teachers and giving them feedback" is low, and the variety is high ($M = 2.62$, $SD = 1.47$), compared to the other items.

Table 7.

Means, standard deviations, and ranges: The Professional learning community scale.

	N	M	SD	Range
Items				
<i>Total Score</i>	411	3.85	.77	1.79-5.00
1. Teachers in this school work collectively to plan school improvement.	409	3.74	1.07	1-5
2. Teachers in this school work collectively to determine professional development needs and goals.	405	3.92	1.03	1-5
3. Our teamwork helps teachers develop the skills needed to produce meaningful student learning.	408	4.07	1.03	1-5
4. Teachers in this school work collectively to select instructional methods and activities.	408	3.98	1.03	1-5
5. Teachers in this school work collectively to plan school improvement.	410	3.97	1.06	1-5
6. School teachers visit each other's classrooms to watch the teaching and learning of the students	403	3.41	1.27	1-5
7. How often have you worked with members of your team to discuss teaching decisions based on student assessment data?	278	4.10	1.18	1-6
8. How often have you worked with members of your team to discuss lesson plans or specific instructional practices?	277	4.09	1.25	1-6
9. How often have you worked with members of your team to evaluate curricular or assessment materials?	277	3.78	1.27	1-6
10. Exchanges teaching materials with colleagues	399	4.53	1.26	1-6
11. Builds teaching materials with colleagues	391	4.08	1.37	1-6
12. Attends team meetings	403	4.70	0.91	1-6
13. Participates in collaborative professional learning	393	4.09	1.29	1-6
14. Watching lessons from other teachers and giving them feedback	387	2.62	1.47	1-6

As can be seen in table 8, the means and standard deviations of each of the items separately shows that the items of the "Self-efficacy" scale are well reflected in the total score, and there is no unusual item.

Table 8.

Means, standard deviations, and ranges: Self-Efficacy scale.

	N	M	SD	Range
Items				
<i>Total Score</i>	411	4.18	.66	2.00-5.00
1. How confident are you that you can use a variety of assessment strategies.	404	4.30	.80	1-5
2. How confident are you that you can provide appropriate challenges for very capable students?	404	4.21	.83	1-5
3. How confident are you in your ability to reach students who are disinterested in studying?	405	4.18	.82	1-5
4. School teachers have the professional ability and confidence to lead innovation in teaching.	408	4.14	.84	2-5
5. Teachers in this school have the skills needed to produce meaningful student learning.	410	4.25	.82	1-5
6. Teachers in this school are skilled in various methods of teaching.	402	4.00	.94	1-5

An examination of the items of the "Professional identity" scale in table 9, shows the that the agreement with item #5 "I always wanted to be a teacher" is low and the variety is high (M = 3.90, SD = 1.22) compared to the other items.

Table 9.*Means, standard deviations, and ranges: Professional Identity scale.*

	N	M	SD	Range
Items				
<i>Total Score</i>	405	4.41	.58	2.75-5.00
1. It is important to me to be a teacher.	412	4.58	.76	1-5
2. I'm comfortable introducing myself as a teacher.	412	4.38	.90	1-5
3. Being a teacher is a central part of my life.	412	4.54	.78	1-5
4. When someone says something negative about teachers, I feel hurt.	412	4.29	.96	1-5
5. I always wanted to be a teacher.	412	3.90	1.22	1-5
6. For me, teaching is a mission.	412	4.47	.82	1-5
7. Teaching is an intellectual challenge for me.	412	4.33	.84	1-5
8. My main challenge in my work is to advance children.	412	4.53	.78	1-5

As can be seen in table 10, the average score of the dependent variable TPD was 4.13 ($SD = 0.82$), which represents a relatively high professional development as rated by teachers. Relative to other items, a low agreement, and high variety was found for the item #2 "My professional development experiences this year have included follow-up support as we implement what we have learned" ($M = 3.84$, $SD = 1.15$).

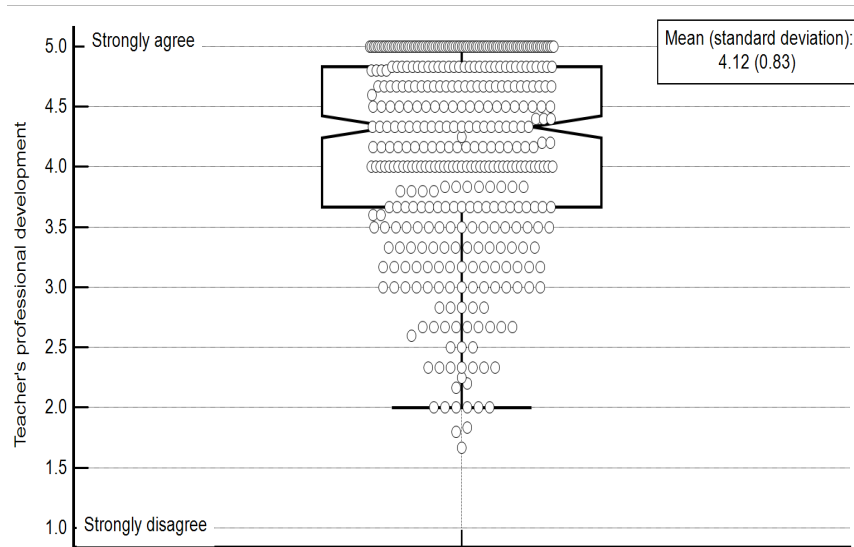
Table 10.*Means, standard deviations, and ranges: Teacher professional development**(TPD) scale.*

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Range</i>
Items				
<i>Total Score</i>	402	4.13	.82	1.67-5.00
1. My professional development experiences this year have been closely connected to my school's improvement plan.	402	4.13	.82	1.67-5.00
2. My professional development experiences this year have included follow-up support as we implement what we have learned.	396	3.84	1.15	1-5
3. My professional development over the past year has helped me to better cope with my students' learning needs	403	4.12	.99	1-5
4. My professional development experiences this year have been valuable to my practice as a teacher.	399	4.19	1.01	1-5
5. My professional development experiences this year have been designed in response to the learning needs of the teaching staff.	369	4.08	1.12	1-5
6. My professional development experiences this year have included enough time to think carefully about, try, and evaluate new ideas.	390	4.09	1.06	1-5

In Figure 12 presents the distribution of principals' scores on each of the study variables.

Figure 12.

Dependent variable - Teacher's professional development: Box-and-whisker graph (n=412).



Notes: Higher score represents a higher perception of teachers' professional development; the central box represents the values from the lower to upper quartile (25 to 75 percentile); the vertical line extends from the minimum to the maximum value; the middle line represents the median.

4.1.3 COMPARATIVE RESULTS (INFERENTIAL (STATISTICS))

Next, we will present the associations between demographic variables and the dependent variable (TPD), as a preliminary analysis.

The associations between the demographic characteristics and the dependent variable were assessed using independent sample t-tests, ANOVA and Pearson correlations.

As can be seen from Table 11, no differences in TPD were found between women and men, between marital situations, or between types of work frameworks. A significant difference was found between Arab education and Jewish education, so that among Jewish education ($M = 4.17, SD = .80$) TPD is higher, compared to Arab ($M = 3.98, SD = .87$). In addition, significant differences were found between levels of education. Post-hoc analysis with Bonferroni correction showed that there is a significant difference between teachers with a B. ED (Bachelor of Education degree) ($M = 4.26, SD = .74$) and teachers with a B.A. degree ($M = 3.85, SD = .85$), so that the TPD level is higher among teachers with a B.ED. degree. No significant differences were found between the other education groups.

Table 11*Differences at TPD by the demographic characteristics.*

	M	SD	t	F	p
Gender			.53		.599
Women	4.14	.80			
Men	4.07	.95			
Marital Status				1.36	.256
Divorced	4.25	.73			
Married	4.10	.84			
Single	4.31	.70			
Widow	3.50	1.41			
Work framework			.82		.412
Primary	4.14	.83			
Special education	4.03	.75			
Sector			2.01		.045
Arab education	3.98	.87			
Jewish education	4.17	.80			
Education				2.84	.016
B. ED.	4.26	.74			
B.A.	3.85	.85			
M.A.	4.16	.84			
Other	4.33	.94			
Ph.D.	4.42	.82			
Senior Teacher	4.05	1.18			

Notes. B. ED. - Bachelor of Education; B.A. - Bachelor of Arts; M.A. - Master of Art; Ph.D. - Doctor of Philosophy

Pearson correlations showed that there was no significant association between TPD and age, $r = -.04$, $p = .381$, general seniority, $r = -.06$, $p = .248$, or seniority in the current school, $r = -.09$, $p = .085$.

Research hypotheses predicted that positive correlations will be found between the professional learning community, Perceptions of principal's transformation leadership patterns, Self-efficacy, Professional identity, and Teacher

professional development (TPD). The correlations between the study variables were assessed using Pearson tests (see Table 12).

Results showed positive correlations between all the study variables. The professional learning community had strong positive correlations with the perceptions of the principal's transformation leadership patterns, self-efficacy, and the TPD, and moderate positive correlation with professional identity. In addition, perceptions of principal's transformation leadership patterns had strong positive correlations with self-efficacy and the TPD, and moderate correlation with professional identity. Moreover, self-efficacy had strong positive correlations with the TPD and moderate positive correlation with professional identity. Finally, the professional identity had a positive moderate correlation with the TPD.

Table 12

Pearson correlation between the study variables

Variable	1	2	3	4	5
1. Professional learning community	-				
2. Perceptions of principal's transformation leadership patterns	.63**	-			
3. Self-efficacy	.62**	.60**	-		
4. Professional identity	.41**	.39**	.49**	-	
5. Teacher professional development (TPD)	.61**	.65**	.61**	.41**	-

* $p < .05$, ** $p < .01$

In order to assess the most important variables for predicting the TPD hierarchical linear regression was calculated. The first block contained the

demographic variables that showed significant association with TPD, and the second block contained the demographic and the core variables.

As can be seen from Table 13, the first step is found to be significant and explains 4.7% of the TPD variance. Only the sector has a significant unique contribution to the prediction model so that among Jews a greater degree of TDP. The second step is also found to be significant, adding 45.5% to the explained variance. Examination of each of the predictive variables shows that professional identity has no significant unique contribution to the model ($Beta = .08$), and that the other variables have a significant unique contribution ($Betas = .23-.28$).

Table 13

Summary of the regression model for TDP prediction

	<i>b</i>	<i>SE</i>	<i>Beta</i>	R^2	ΔR^2
Step I					.047**
Sector	.22	.09	.12*		
Education (Dummy variables)					
B. ED.	-.02	.57	-.01		
B.A.	-.43	.57	-.22		
M.A.	-.11	.57	-.07		
Ph.D.	.19	.80	.02		
Senior Teacher	-.20	.65	-.03		
Step II				.502**	.455**
Perceptions of principal's transformation leadership patterns	.42	.07	.28**		
Professional learning community	.26	.05	.24**		
Self-efficacy	.29	.06	.23**		
Professional identity	.11	.06	.08		

* $p < .05$, ** $p < .01$

Notes. B. ED. - Bachelor of Education; B.A. - Bachelor of Arts; M.A. - Master of Art; Ph.D. - Doctor of Philosophy

STUDY 2. RESULTS OF THE EMPIRICAL RESEARCH: PRINCIPAL LEVEL

4.2.1 INTRODUCTION

At the beginning of this chapter, a preliminary analysis will be presented, including descriptive statistics for the principals' level variables and the associations between the principals' demographic characteristics and the mean TPD of the teachers at their respective school.

The associations between the demographic characteristics and the dependent variable were assessed using independent sample t-tests, ANOVA and Pearson correlations. Next, Pearson correlations and a regression model will be used to examine hypotheses 5-7.

4.2.2 DESCRIPTIVE RESULTS

Tables 14 through 16 present the means, standard deviations, and ranges for the principals' study variables. The tables include these indices for each item separately, as well as for the total score of each scale.

Although all scales total scores were in the highest possible range (1-7), The average score of the psychological empowerment ($M = 6.59$, $SD = .39$) was a little higher in comparison to the average score of the professional's self-efficacy ($M = 5.81$, $SD = .80$). The standard deviations indicate that the response trend is

homogeneous, however, the homogeneity of the psychological empowerment seems quite high.

Examination of the means and standard deviations of each of the items in table 14 shows that the items of the "Psychological empowerment" scale, are well reflected in the total score, and there is no unusual item.

Table 14.

Means, standard deviations, and ranges: Psychological empowerment.

	N	M	SD	Range
Items				
<i>Total Score</i>	36	6.60	.39	5.82-7.00
1. I am confident about my ability to do my job.	36	6.69	.52	5-7
2. The work that I do is important to me.	36	6.89	.32	6-7
3. I have significant autonomy in determining how I do my job.	36	6.22	.80	5-7
4. My impact on what happens in my department is large impact.	36	6.53	.61	5-7
5. My job activities are personally meaningful to me.	36	6.83	.38	6-7
6. I have a great deal of control over what happens in my department impact.	36	6.36	.59	5-7
7. I can decide on my own how to go about doing my own work	36	6.22	.76	5-7
8. I have considerable opportunity for independence and freedom in how I do my job	36	6.58	.60	5-7
9. I have mastered the skills necessary for my job.	36	6.92	.28	6-7
10. The work I do is meaningful to me.	36	6.58	.55	5-7

An examination of the items of the "Professionals Self-efficacy" scale in table 15, reveals that the agreement with the item "I have significant influence over what happens in my department" is high, and the variety is low ($M = 6.72$, $SD = .45$), compared to the other items.

Table 15.*Means, standard deviations, and ranges: Professional Self-Efficacy.*

Items	N	M	SD	Range
<i>Total Score</i>	36	5.81	.81	3.68-7.00
1. 1. I have significant influence over what happens in my department	36	6.72	.45	6-7
2. I am self-assured about my capabilities to perform my work activities.	36	5.69	.82	4-7
3. Identify the school's (community) needs in order to formulate a school vision that suits it.	36	5.78	.83	4-7
4. Establish clear goals to be achieved by staff and students.	36	5.50	.97	3-7
5. Plan your work week so that you are free to the important things that you consider	36	5.67	.99	3-7
6. Prepare work plans for the school beyond the current school year	36	5.89	.92	3-7
7. Implement plans and decisions made	36	5.58	.94	3-7
8. Operate an effective mechanism for monitoring and monitoring decisions made	36	5.89	.95	3-7
9. Coordinate between different school holders and staff so that everyone works towards a common goal	36	5.75	1.11	3-7
10. Share a large group of staff in decision-making processes	36	5.72	.88	4-7
11. To give teachers significant powers over important issues	36	5.81	.82	4-7
12. Persist in executing a plan over time, even if you do not see immediate results	36	5.81	.98	3-7
13. Explain and reasonably explain your decisions and instructions	36	5.69	.92	4-7

Table 16.*Means, standard deviations, and ranges: Professional Self-Efficacy (continued).*

Items	N	M	SD	Range
14. Act enthusiastically and carry the team behind you	36	6.11	.89	4-7
15. Study all the time to expand your education	36	6.00	.96	3-7
16. Allow the introduction of change initiated by teachers	36	6.06	.95	3-7
17. Be attentive and caring about the personal issues of the team members	36	6.00	.86	4-7
18. Say a good word to the teacher	36	6.03	.94	4-7
19. Develop the professional ability of even the weaker people in the team	36	6.11	.92	4-7
20. Supporting people and being sensitive to them, without being too relinquished at work	36	5.56	.97	3-7
21. Be involved in promoting school curriculum preparation	36	5.67	.99	4-7
22. Apply diverse teaching methods at school	36	5.83	.94	4-7
23. To serve as a source of knowledge for teachers of pedagogy	36	5.78	.93	3-7
24. Perform a professional assessment of teacher performance	36	5.75	1.02	3-7
25. Provide teachers with helpful and detailed feedback on their work	36	5.81	.95	4-7

As seen in table 17, the average score of the independent variable "Implementation of the Learning Organization Program" (PISGAH) was 3.50 (SD = .48), out of a possible range of 1-4, which represents a relatively high implementation of learning organization program. Examination of the means and standard deviations of each

of the items separately shows that the items are well reflected in the total score, and there is no unusual item.

Table 17.

*Means, standard deviations, and ranges for the principals' study variables:
Implementation of the PISGAH "Learning Organization Program"*

Items	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Range</i>
<i>Total Score</i>	36	3.50	.48	2.40-4.00
Administrative field: (updated data on the professional development of teaching staff)	36	3.58	.69	1-4
The pedagogical field (study organization picture data, individual and organizational needs identification, effectiveness of the libraries arena and more)	36	3.53	.74	2-4
Did the activities of the Pisgah Center include tracking, evaluation, and feedback from the Pisgah Center?	36	3.14	.83	1-4
Do you think the findings of the evaluation will serve as a basis for making future decisions with all relevant factors regarding the professional development processes at your school?	36	3.56	.56	2-4

4.2.3 COMPARATIVE RESULTS (INFERENTIAL STATISTICS)

Next, we will present the associations between the principals' demographic variables and the dependent variable (average TPD of teachers at the principals' school), as a preliminary analysis.

The associations between the demographic characteristics and the dependent variable were assessed using independent sample t-tests, ANOVA, and Pearson correlations.

As can be seen from Table 18, no differences were found between women and men, between marital situations, between types of work frameworks, or sector.

Table 18.

Differences at average TPD by the principals' demographic characteristics.

	M	SD	t	F	p
Gender			.40		.689
Women	4.07	.42			
Men	4.13	.34			
Marital Status¹				.82	.491
Divorced	3.81	.64			
Married	4.15	.31			
Single	3.33	-			
Widow	4.39	-			
Work framework			.50		.644
Primary	4.11	.32			
Special education	3.94	.76			
Sector			1.80		.082
Arab education	3.85	.38			
Jewish education	4.14	.39			

Notes. 1. Only one manager reported that he was single and another manager reported that he was a widower, so no standard deviation was calculated.

Pearson correlations showed that there was no significant association between average TPD and seniority, $r(35) = .10, p = .576$, or Number of teachers in the school, $r(35) = -.08, p = .644$. Age was positively correlated with average TPD $r(35) = .38, p = .024$.

Hypotheses 5-7 of this research asserted that psychological empowerment, professional self-efficacy, and implementation of the PISGAH “Learning Organization Program” will be positively associated with TPD.

Table 19 presents Pearson correlations between the study variables. The results showed a positive moderate correlation between psychological empowerment and professional self-efficacy ($r = .39, p = .018$). Implementation of the PISGAH Learning organization program was not found to be significantly associated to psychological empowerment ($r = .23, p = .185$) or professional self-efficacy ($r = .17, p = .330$).

In contrary to the research hypotheses, the associations of average TPD with psychological empowerment ($r = .06, p = .374$), professional self-efficacy ($r = .21, p = .117$), and the implementation of the PISGAH “Learning Organization Program” ($r = -.15, p = .197$) were not significant.

Table 19.

Pearson correlation between the core variables.

Variable	1	2	3	4
1. Psychological empowerment	-			
2. Professional Self-efficacy	.39*	-		
3. Implementation of the “Learning Organization Program”	.23	.17	-	
4. Average TPD	.06	.21	-.15	-

* $p < .05$.

STUDY 3. RESULTS OF THE HIERARCHIAL LINEAR MODEL

4.3.1 INTRODUCTION

The eighth hypothesis of this research was that Teacher professional development (TPD) will be predicted by the principal's psychological empowerment, professional self-efficacy, and implementation of the PISGAH “Learning Organization Program”, above and beyond the teacher's perceptions of the principal's transformation leadership patterns, professional learning community, self-efficacy, and professional identity.

To assess the effects of principles level on the teachers’ level, Hierarchical Linear Model (HLM) was conducted. Hierarchical Linear Modelling (HLM) is a form of regression that is used to predict the outcome variables when the predictor variables are at varying hierarchical levels because this form is designed to take the hierarchical structure of the data into account. In the current study, the teachers share variance according to their common principles. Accordingly, in this model, the dependent variable was TPD as completed by teachers, and the independent variables were the combined teachers’ and principles’ variables.

4.3.2 HLM ANALYSIS RESULTS

As can be seen from Table 20 and Figure 13, results showed that examining the teachers’ level variables, higher perceptions of principal's transformation leadership patterns ($Beta = .44, p = .02$), and higher self-efficacy ($Beta = .33, p =$

.02), are positively correlated with TPD. Examining the principals' variables showed that higher professional self-efficacy is positively correlated with teachers' TPD ($Beta = .13, p = .04$). Variables in the model explained about 76% of the total variance in TPD.

Table 20.

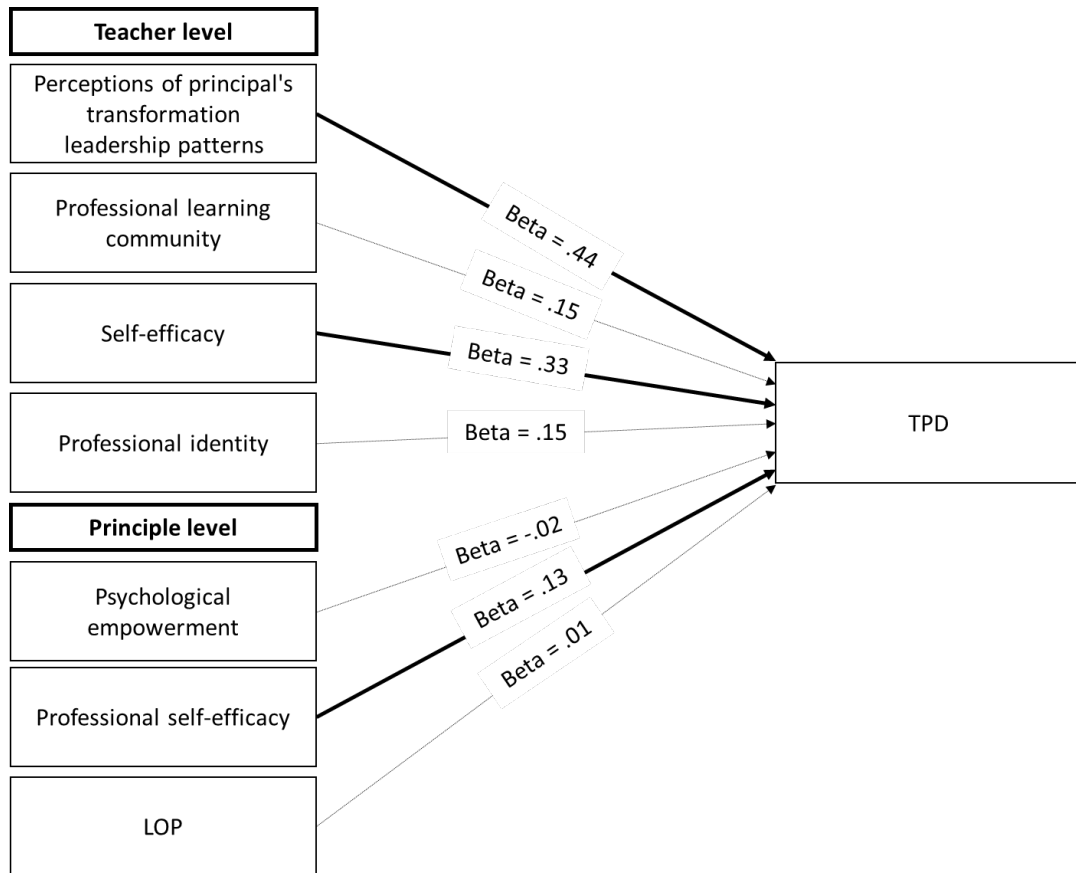
Standardized and unstandardized coefficients for predicting TPD using teachers' and principals' variables

	<i>B</i>	<i>S.E.</i>	<i>Beta</i>	<i>p</i>
Teacher level				
Perceptions of principal's transformation leadership patterns	.54	.21	.44	.02
Professional learning community	.15	.16	.15	.36
Self-efficacy	.34	.14	.33	.02
Professional identity	.22	.16	.15	.20
Principle Level				
Psychological empowerment	-.02	.10	-.02	.88
Professional self-efficacy	.04	.05	.13	.04
LOP	.01	.08	.01	.97

LOP: Learning Organization Program

Figure 13.

Summary of the associations between teacher and principle level variables with TPD.



**SECTION 5. DISCUSSION, CONCLUSION,
LIMITATION AND FUTURE LINE OF
RESEARCH**

INTRODUCTION

Teachers' professional development (TPD) is a vital and important issue especially for advancing teachers' knowledge and developing their pedagogies to maintain high teaching quality in the classrooms (Mwihaki & Josphat 2019; Postholm, 2018). The primary objective of the research was to explore factors that predict teachers' professional development (TPD) at both the individual level of the teacher and at the broader level of the school's principal. The study builds on the internal coherence framework (Elmore et al., 2014) through the PISGAH centres and their Learning Organization Program (LOP). Two analyses were conducted to examine teacher and principals' variables separately, followed by multi-level model analysis (HLM) to account for the nested structure of the TPD data. In the next section we will discuss the results of the three analyses, starting with the results of the teacher level, then discussing the results of the principal level and concluding with the results of the HLM analysis. Finally, we will discuss the conclusions of the entire research, its limitations and suggest directions for future research.

5.1 THE RESULTS OF THE TEACHER LEVEL ANALYSIS

The objective of this analysis was to examine what factors at the teacher level predict TPD. Specifically, we aimed to understand how the teachers' self-efficacy, professional identity, level of participation in school's professional learning communities, and their perceptions of the principal's transformational leadership patterns affected their professional development.

Our first hypothesis postulated that professional learning community will be positively correlated with TPD. As hypothesized, our analysis showed a significant positive correlation between professional learning communities and TPD. Moreover, the regression analysis revealed that professional learning community was a significant predictor of TPD. These findings are consistent with other studies that describe a similar pattern of associations between TPD and professional learning communities (Fu & Clarke, 2017; Brown, 2019). In the last decade, the attention of educationists that have an interest in the professional development of teachers has been drawn by the professional learning community. They are described as teachers' groups who come together to partake in systematic, regular, and sustained cycles of learning that is inquiry-based intending on developing their individual and collective capacity to improve the outcomes of students (Hairon et al. 2012; Sjoer & Meirink, 2016). The processes are a representation of a web of activities in which teachers provide and receive support from colleagues, share and collaborate on the best instructional practices, and take the initiative to improve their practice (Fu & Clarke, 2017; Sjoer & Meirink, 2016). This collegial learning and support occur in both directions as well, and across generations (Evertson, 2020).

Hence, this study provides additional support to the notion that professional learning communities can lead to the creation of spaces for ongoing and sustained professional development (Vangrieken et al., 2017). Through this collaborative work, teachers may develop shared expectations for practice (Elmore, 2004; Elmore, Forman, Stosich, & Bocala, 2014; Forman, Stosich & Bocala, 2017), and

share experiences and innovations, to solve problems together and to develop their competencies and professionalism (Juliasandi & Rohman, 2018).

The second hypothesis of the study was that positive correlations will be found between perceptions of principal's transformation leadership patterns and TPD. As hypothesized, our results showed that the perception of principal's transformation leadership was indeed a significant predictor of TPD. Professional leadership of managers in schools and the professionalization of teachers are closely related such that effective and professional leadership leads to the professional development of teachers (Hairon & Dimmock, 2012). Transformational leaders strongly encourage teachers to continuously improve the quality of their teaching and instruction (Northouse, 2010). School principals' transformational leadership has also shown to be associated with improving teachers' self-efficacy (Francisco, 2019), their self identity (Hutchinson, 2020; Balyer 2012; Kim & Park 2019) and their cooperative professional development (Kang, 2021; Li & Liu 2020).

Consistent with other studies linking perceptions of principal's transformation leadership patterns with teachers' professional development (Kang, 2021). Our study also underpins the importance of this factor in predicting TPD.

Our third hypothesis assumed a positive correlation between teachers' self-efficacy and TPD. Our hypothesis was supported, revealing that teachers' self-efficacy is a significant predictor of TPD. Likewise, this finding is consistent with other studies emphasising the role of self-efficacy in teachers' success and professionalism (Barni, 2019; Hajovsky et al., 2020; Kraut et al., 2016). Self-

efficacy is directly related the teacher's knowledge and skills required for effective teaching. Moreover, to make the best use of their professional development training, there is a strong sense of self-efficacy and organizational support needed for all teachers at various years in the profession (Kraut et al., 2016). Self-efficacy beliefs have a profound influence and can impact the extent to which a teacher in-service training program is ultimately effective. It affects the acquisition of knowledge and skills and studies showed that teachers with higher levels of self-efficacy perform better in the training process (Hajovsky et al., 2020; Kraut et al., 2016).

Our fourth and last hypothesis at the teacher level analysis was that teachers' professional identity will be positively associated with TPD, because experience is related to the development of teachers' knowledge-bases (Eales, & Bradley, 2018), and much emphasis is placed on the importance of identity in the development of teachers (Avidov-Ungar & Forkosh-Baruch, 2018; Meihami 2021). Our results showed that although teachers' professional identity had positive correlation with TPD, the regression analysis revealed that professional identity had no significant unique contribution to the TDP prediction model. A possible explanation is implied by the comparatively strong correlation between professional identity and self-efficacy; self-efficacy is often described in the literature as being one of four major contributors to teachers' professional identity (Canrinus et al., 2012), such that the positive correlation found between professional identity and TPD may, in fact, reflect the contribution of the latent variable of self-efficacy.

Another finding of the present study relates to the strong positive association between the principal's transformational leadership and professional learning communities, which corroborates the notion that transformational leadership style is positively associated with teachers' cooperative professional development (Bellibaş et al., 2021), and is one of the main requirements in creating a school environment for teacher professionalization (Louis et al., 2010).

All in all, the predictors of professional learning communities, teachers' self-efficacy, and their perceptions of the principals' leadership style accounted for nearly 50% of the variance of TPD which serves as additional reinforcement to the Internal Coherence model and assessment protocol (Elmore et al., 2014).

In addition, the present study's findings showed that teachers with a Bachelor of Education (B.Ed.) had higher TPD compared to teachers with a Bachelor of Arts degree (B.A). In Israel, B.Ed. degree is awarded in colleges of education while B.A. degree is usually awarded in universities. This variance may indicate the existing differences between teachers' training in colleges as opposed to university. Perhaps colleges are more oriented towards education and thus provide a better basis for the continuous professional development of teachers. Moreover, teachers with a B.A. may be temporary substitute teachers who, due to their status, do not fully participate in professional teacher training programs, which may also explain their low TPD compared to their counterparts with a B.Ed.

Surprisingly, our results also revealed that teachers in Jewish education had higher TPD in comparison to the teachers in Arab education. Such differences may

occur due to cultural and economic differences between these two sectors (Resh & Blass, 2019).

5.2 THE RESULTS OF THE PRINCIPAL LEVEL ANALYSIS

The objective of this analysis was to explore what factors at the school's principal's level predict TPD. Specifically, we sought to examine the principals' variables of psychological empowerment, professional self-efficacy, and level of participation in the PISGAH “Learning Organization Program” (LOP) and their impact on the teachers' professional development. Accordingly, we postulated that the principals' psychological empowerment, professional self-efficacy, and level of participation in the PISGAH learning organization program will be all significant predictors of TPD of teachers in their corresponding schools.

Previous research suggests that psychological empowerment of school principals ultimately leads to enhancing teachers' psychological empowerment and their work performance (Mufti et al., 2020; Muliati et al., 2022). The responsibility of engaging teachers in professional development programs for the development of the whole school falls on the school administrators (Karacabey, 2020). Findings reinforce the notion that changes in successful schools and improvement thereof require a focus on the professional development of teachers is well understood by principals (Hart & Bredeson, 1996). Accordingly, we hypothesized that the psychological empowerment of principals will be associated with greater TPD among their schoolteachers. However, contrary to our hypothesis, the present study did not find evidence for such association.

With regards to the principals' professional self-efficacy, we assumed it would serve as a significant predictor of TPD since it relates to the schools' principal's capability to produce the desired outcomes in his or her respective school (Tschannen-Moran & Gareis, 2004). However, our results showed that the association between this predictor and TPD was not significant. It should be noted, though, that although it failed to reach significance, the association between the principals' self-efficacy and TPD was indeed in the expected direction.

Our final hypothesis at the principal level analysis concerned a positive association between his or her level of participation and implementation of the PISGAH Learning Organization Program (LOP) and TPD, because learning organization is associated with supporting continuous opportunities for learning and collaboration among staff members (Kools & Stoll, 2016). Nevertheless, in the present study LOP showed no significant correlation with TPD. It may be that the small sample represented principals who *were planning* to make a change in the school and increase the TPD rather than principals who have been implementing the program for some time.

In addition, the mean score of LOP suggests an overall high level of implementation among the principals. In fact, only 3 principals (less than 10%) reported that they did not meet the PISGAH consultation team.

Interestingly, non-significant positive associations were found between LOP and professional self-efficacy and psychological empowerment, which may suggest that managers with high self-efficacy and psychological empowerment are

more active in implementing LOP. This notion is in line with other studies emphasizing the role of principals' self-efficacy in cultivating learning organizations (Hesbol, 2019; Lee & lie 2014). It is likely that the low number of participants at this level (thirty-six principals) has impaired our ability to find significance. Future studies can examine these factors in a larger sample of principals.

Additionally, the results showed a positive correlation between average TPD and the principal's age. Previous studies have linked the age of managers with their transformational leadership practices (Herman et al., 2017). Given that the principal's transformational leadership patterns as perceived by the teachers were strongly associated with TPD, this may explain the positive association between age and TPD in this study.

5.3 THE RESULTS OF THE HLM ANALYSIS

As leadership practices are associated with creating a learning environment and providing meaningful professional development (Elmore et al., 2014), we posit that the variables measured at the principal's level will contribute to TPD beyond the contribution of variables at the teachers' level. Accordingly, our eighth and final hypothesis argued that TPD would be predicted by the principal's psychological empowerment, professional self-efficacy, and level of implementation of the PISGAH LOP, above and beyond the teacher's perceptions of principal's transformation leadership patterns, their professional learning community, self-efficacy, and professional identity.

The combined teacher and principals' multi-level regression model revealed that the teachers' perceptions of the principal's transformation style were the stronger predictors of TPD. Although examined at the teacher level, this variable represents another yet important characteristic of the school principal. Indeed, in their Internal Coherence theory model, Elmore et al. (2014) put much focus on leadership practices and behaviours in creating a learning environment, active engagement in teaching and learning, and providing meaningful professional development. In addition, the HLM analysis revealed that both the teachers' and the principals' self-efficacy are important variables in predicting TPD. As noted earlier, self-efficacy has much influence over behavior since it concerns efforts people invest in pursuing their goals and overcoming challenges (Bandura, 1997). As such, the present study adds to the research literature on self-efficacy by emphasizing the great impact of self-efficacy on both the individual teacher and the school principal, on the professional development of teachers.

Finally, contrary to the results of the single-level regression analysis, the HLM showed that professional learning communities do not emerge as an independent predictor of TPD. It could be that this variable has common variance with school factors in which it is nested, which may explain its lessened impact on TPD in the HLM analysis.

Overall, the results of the multi-level regression analysis attest to the importance of the principal's leadership in predicting TPD and reinforce the key role of the principal's leadership in cultivating a learning organization and developing the professionalism of the schoolteachers.

5.4. CONCLUSION

In the changing reality, learning and teaching are not what they used to be neither for students nor the teaching staff. Demographic, technological, economic, and political changes, as well as global pandemics and trends, all created new challenges in education.

The primary objective of this study was to analyse the current scope of teachers' professional development and suggest the principal's and teacher's roles in the ecosystem of improving the educational system in Israel.

The present study's findings stress the significance of several factors at the teacher and school level. The variable that was found to be the most significant predictor of TPD was the teachers' perceptions of the principal's transformational leadership patterns. Above all, the present study's findings attest to the importance of the school principal's leadership patterns for the professional development of teachers, alongside the contribution of the teachers' professional identity, self-efficacy, and professional learning community opportunities. Thus, the study findings emphasize the importance of improving school principals' leadership skills to effectively increase the professional quality of their teaching staff and the entire school. These findings attest to the practicality and importance of the PISGA learning centers and the LOP program and calls for further examination of its implementation and usability throughout the Israeli education system.

In closing, we note that the important mission of improving the educational system, the school framework, and teachers' professional development is

fundamental for students' development and achievements. Thus, it is recommended that the authorities and decision-makers will provide resources to achieve these goals.

5.5 LIMITATION

This research has several limitations that we believe are important to discuss. First, all measures of this study were self-report. Though self-report is appropriate for capturing the measured variables in this study, they are subject to common method biases (Podsakoff et al., 2003).

In addition, the cross-sectional design of the present study does not allow to infer the direction of relationships found. Hence, it could be that TPD predicts teachers' self-efficacy, and their perceptions of the principal's leadership patterns, or that the associations between these variables are reciprocal in nature. This suggests that a longitudinal study design that captures the various measures at several points over a longer period of time could better reflect the direction of the relationships between the study variables and their effect on teachers' professional development.

5.6 FUTURE LINE OF RESEARCH

In addition to teachers' and principals' levels, we suggest for further research to examine students' levels, to gain a wider perspective and different points of view. Such a study may better examine the independent contribution of professional learning communities to teachers' professional development. A larger

sample and repeated measurements over several time points could as well give a better understanding of the relationship between the PISGAH LOP and TPD.

Additionally, it is recommended to conduct longitudinal intervention studies in order to examine more thoroughly the direction of the relationships among the studied variables as well as their impact on teachers' professional development over time. Furthermore, it is important to compare this study with similar studies conducted in other countries to generalize the results. Future study may also seek to understand the differences in TPD found between Jewish and Arab sector in depth.

We also recommend the examination of teachers' future perceptions regarding the skills they are expected to acquire and the teacher educators expected to guide them. That is, teachers' preferences regarding their professional development process; how they perceive the role skills they will need in five years; what professional development styles and patterns will provide a response to these needs; and the teacher educators' role and necessary qualifications for this role in the future.

The study will examine teachers' needs re- present and future professional development processes and their expectations of future teacher educators in an effort to improve their professional abilities.

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APPENDICES

APPENDIX 1- The Chief Scientist of the Ministry of Education in Israel



עמוד 1 מתוך 2

מדינת ישראל
משרד החינוך
לשכת המדען הראשי

19 מאי 2020
19 מאי 2020
תיק מס' 11199

היתר לביצוע המחקר בנושא "פיתוח מקצועי של מורים באמצעות תמונת ארגון לומד למנהלים במסגרת בית ספרית בהובלת מרכז פסג"ה: ניתוח רב-דרגתי תוך שימוש במסגרת הקוהרנטיות הפנימית"

ע"י עורכת המחקר גב' ענת הלל

מסמך זה בתוקף החל מהתאריך הרשום לעיל ועד לסיום שנת הלימודים תשפ"א בלבד

במסמך זה ההתייחסות לכל מי שאינם מוזהים לפי שם היא בלשון זכר. זאת מטעמי נוחות בלבד, והכוונה היא גם לנקבה אם לא מצוין אחרת.

היתר זה ניתן בהסכמת על הצהרות האחראים למחקר מוחן עולה כי המחקר המבוקש אינו עונה לאף אחד מהאפלינים הכלולים בספח המצורף

המסגרת שבה נערך המחקר: לימודיה של עורכת המחקר לקראת תואר שלישי באוניברסיטת קורדובה בספרד

עיקרי המרכיבים של המחקר לעניין היתר זה:

הנבדקים: מורים ומנהלי בתי ספר
הליך איסוף המידע: מילוי שאלון מקוון על ידי הנבדקים בנושאי המחקר
פרטים נוספים על אודות הליך איסוף המידע ועל כלי המחקר מצויים במסמכים שיוגשו ע"י עורכת המחקר לבחינתו של מנהל המוסד החינוכי, כחלק מהבקשה להסכמתו לביצוע המחקר.

תנאים והוראות:

1. המחקר יעמוד בכל כללי הנהל לפעילות מחקרית במערכת החינוך.¹
 2. לצורך בקשת הסכמתו של מנהל המוסד החינוכי לביצוע המחקר, יש להמציא העתק של מסמך זה למנהל המוסד החינוכי ביחד עם מסמכים אלה: תקציר הצעת המחקר, כלי המחקר, מכתב הפנייה למועמדים להיבדק
 3. הסכמת המנהל לפעולה המבוקשת נתונה לשקוליו, בהתאמה לסמכותו ולאחריותו במנהל המוסד לעיל ולכל שאר נהלי משרד החינוך הנוגעים בדבר.
1. אין במסמך זה משום חיובי דעה של לשכת המדען הראשי על איכותו של המחקר.
 2. לא נדרש היתר לביצוע המחקר מטעם המוחזר.
 3. מנהל המוסד החינוכי מוזמן לפנות ללשכת המדען הראשי להיוועצות בנוגע לפעולה המבוקשת לביצוע, כמו גם בקשר לנהלים בכלל, בטלפון שמספרו 073-3931641 או באמצעות דוא"ל, שכתובתו Madan@education.gov.il

רוני אמינו
מנהל תחום נרולציה של המחקרים
לשכת המדען הראשי

¹ לנהל, כולל הגדרת המשגים הרלוונטיים למסמך זה, ראה חוז מנכ"ל טו/20(2), המסיף גם באור לשכת המדען הראשי

1 סוכנות דואר: רח דמורה הנביאה 2 ירושלים 951402 טלפון: 073-3931641 אזור הבית: <http://www.education.gov.il/scientist> דואר אלקטרוני: madan@education.gov.il פקס: 073-3931640

APPENDIX 2- Teachers' questionnaires



Teacher Questionnaire



The resource / input testing phase

1. Background information

Sex: 1. Man 2. Woman

2. Marital status: 1. Single 2. Married 3. Divorced 4. Widower

3. Age: _____ (in years)

4. Current Work Framework: 1. Elementary 2. Middle School 3. High School

5. Sector: 1. State 2. Religious-State 3. Arab

6. Education (specify the highest level):

1. Senior teacher

2. BA

3. B. ED

4. Master's degree

5. PhD

6. Other. Detail _____

7. Have you previously participated in your field of study? 1. No. 2. Yes

Detail _____

8. Role (More than one option can be flagged):

1. Deputy Director

2. Educator

3. Coordinator

4. Professional teacher

5. Other. Detail _____

9. Seniority in teaching _____ (in years)

10. Seniority in teaching at current school: _____

Please indicate to what extent you agree with each of the following statements regarding your school principal - from "strongly disagree" (1) to "strongly agree" (5) or (6)"irrelevant".

	6 Irrelevant	5 Strongly agree	4 Agree	3 Neutral	2 Disagree	1 Strongly disagree
12. The principal at this school gives teacher teams a clear and meaningful purpose for their time together						
13. The principal at this school provides adequate time for teacher teams to meet						
14. The principal at this school ensures that teacher-meeting time is protected and maintained consistently throughout the year.						
15. The principal at this school asks probing questions about teaching and learning.						
16. The principal at this school invites input from faculty in discussions about teaching and learning						
17. The principal communicates a clear vision for teaching and learning at our school.						
18. The principal at this school is knowledgeable about						

	6 Irrelevant	5 Strongly agree	4 Agree	3 Neutral	2 Disagree	1 Strongly disagree
effective instructional practices.						
19. The principal at this school Conducts classroom visits to improve teaching						
20. The principal at this school supports teacher teams in following through on instructional decisions made by the group.						

Please indicate to what extent you agree with each of the following statements regarding your school - from "strongly disagree" (1) to "strongly agree" (5) or (6) "Irrelevant."

	6 Irrelevant	5 Strongly agree	4 Agree	3 Neutral	2 Disagree	1 Strongly disagree
21. In this school, teachers feel comfortable experimenting with untried teaching approaches, even if they may not work.						
22. Making mistakes is considered part of the learning process in our school						
23. People in this school are eager to share information about what does and does not work.						

	6 Irrelevant	5 Strongly agree	4 Agree	3 Neutral	2 Disagree	1 Strongly disagree
24. The principal at this school listens attentively.						
25. The principal at this school provides teacher teams with the right balance of direction and independence.						
26. People in this school are usually comfortable talking about problems and disagreements about teaching and learning						
27. The principal at this school is directly involved in helping teachers address instructional issues in their classrooms.						
28. Teachers in this school work collectively to plan school improvement.						
29. Teachers in this school work collectively to determine professional development needs and goals						
30. Our teamwork helps teachers develop the skills needed to produce meaningful student learning						
31. Teachers in this school work collectively to select instructional methods and activities						

	6 Irrelevant	5 Strongly agree	4 Agree	3 Neutral	2 Disagree	1 Strongly disagree
32. Teachers in this school work collectively to plan school improvement						
33. School teachers visit each other's classrooms to watch the teaching and learning of the students						

Questions 34-36 are intended for job holders who belong to a professional or tier team, if the answer "no" goes to question 37

	Irrelevant	More than once a week	Once a week	Once or twice a month	Once a quarter	Once or twice a year	Not ever
34. How often have you worked with members of your team to discuss teaching decisions based on student assessment data?							
35. How often have you worked with members of your team to discuss lesson plans or specific instructional practices?							
36. How often have you worked with members of your team to evaluate curricular or assessment materials?							

Please indicate to what extent you agree with each of the following statements regarding the experiences of your professional development in the school - from "strongly disagree" (1) to "strongly agree" (5) or (6) "Irrelevant".

	6 Irrelevant	5 Strongly agree	4 Agree	3 Neutral	2 Disagree	1 Strongly disagree
37. My professional development experiences this year have been closely connected to my school's improvement plan.						
38. My professional development experiences this year have included follow-up support as we implement what we have learned.						
39. My professional development over the past year has helped me to better cope with my students' learning needs						
40. My professional development experiences this year have been valuable to my practice as a teacher.						

	6 Irrelevant	5 Strongly agree	4 Agree	3 Neutral	2 Disagree	1 Strongly disagree
	6 Irrelevant	5 Strongly agree	4 Agree	3 Neutral	2 Disagree	1 Strongly disagree
41. My professional development experiences this year have been designed in response to the learning needs of the teaching staff.						
42. My professional development experiences this year have included enough time to think carefully about, try, and evaluate new ideas.						

Please indicate to what extent you are confident in your classroom dealing with the following challenges - from "not at all safe" (1) to "very safe" (5) or (6) "irrelevant".

	6 Irrelevant	5 Very safe	4 safe	3 Neutral	2 Not safe	1 Not at all safe
43. How confident are you that you can use a variety of assessment strategies						
44. How confident are you that you can provide appropriate challenges for very capable students?						
45. How confident are you in your ability to reach students						

	6 Irrelevant	5 Very safe	4 safe	3 Neutral	2 Not safe	1 Not at all safe
who are disinterested in studying?						

Please indicate to what extent you agree with each of the following statements regarding teachers at your school - from "strongly disagree" (1) to "strongly agree" (5) or (6) "irrelevant"

	6 Irrelevant	5 Strongly agree	4 Agree	3 Neutral	2 Disagree	1 Strongly disagree
46. School teachers have the professional ability and confidence to lead innovation in teaching						
47. Teachers in this school have the skills needed to produce meaningful student learning						
48. Teachers in this school are skilled in various methods of teaching.						

**How often on average, do you do the following activities at school?
Mark only one option per line.**

	Irrelevant	More than once a week	Once a week	Once or twice a month	Once a quarter	Once or twice a year	Not ever
49. Exchanges teaching materials with colleagues							
50. Builds teaching materials with colleagues							
51. Attends team meetings							
52. Participates in collaborative professional learning							
53. Watching lessons from other teachers and giving them feedback							

Please indicate to what extent you agree with each of the following statements regarding your professional identity – from (1) "strongly opposed" to (5) "strongly agree."

	5 Strongly agree	4 agree	3 Neutral	2 opposed	1 Strongly opposed
54. It is important to me to be a teacher					
55. I'm comfortable introducing myself as a teacher					
56. Being a teacher is a central part of my life					
57. When someone says something negative about teachers, I feel hurt.					
58. I always wanted to be a teacher					

	5 Strongly agree	4 agree	3 Neutral	2 opposed	1 Strongly opposed
59. For me, teaching is a mission					
60. Teaching is an intellectual challenge for me					
61. My main challenge in my work is to advance children					

**62. How would you characterize institutional training in your school?
(More than one answer can be marked)**

- The cause of external operation.
- The operation factor within the school staff.
- I was a partner in choosing the course content.
- The curriculum was based on the day-to-day needs of the school.
- As part of the training, the teaching-learning practices of the school staff were investigated.
- In the course of practical training, practical experience was possible in its content.
- As a result of institutional training, teachers' teaching performance will be more professional.
- There was no institutional training this year at the school.

APPENDIX 3- Principals' questionnaires



Principal Questionnaire



1. Resource Phase Input / Input Testing

1.1 Background information

- Sex: 1. Man 2. Woman 1.
2. Marital status: 1. Single 2. Married 3. Divorced 4. Widower
3. Age: _____ (in years)
4. Current Work Framework: 1. Elementary 2. Middle School 3. High School
5. Sector: 1. State 2. Religious-State 3. Arab
6. Previous position: 1. in the field of education and training 2. Other field.
Private _____
7. Education (specify the highest level):
1. Senior teacher
 2. BA
 3. B.ED
 4. Master's degree
 5. PhD
 6. Other. Detail _____
8. Seniority in teaching _____ (in years)
9. Seniority in school management _____ (in years)

1.2 School background information

10. The size of the school according to the number of students:
1. Small - up to 200 students
 2. Medium - between 200 and 500 students
11. Number of teachers in the school _____

2. The process phase

2.1 Psychological Empowerment Instrument Listed below are a number of self-orientations that people may have with regard to their work role. Using the following scale, please indicate the extent to which you agree or disagree that each one describes your self-orientation.

	A Very Strongly Disagree	B Strongly Disagree	C Disagree	D Neutral	E Agree	F Strongly Agree	G Very Strongly Agree
12. I am confident about my ability to do my job							
13. The work that I do is important to me							
14. I have significant autonomy in determining how I do my job							
15. My impact on what happens in my department is large impact							
16. My job activities are personally meaningful to me							
17. I have a great deal of control over what happens in my department. impact							
18. I can decide on my own how to go about doing my own work							

	A Very Strongly Disagree	B Strongly Disagree	C Disagree	D Neutral	E Agree	F Strongly Agree	G Very Strongly Agree
19. I have considerable opportunity for independence and freedom in how I do my job							
20. I have mastered the skills necessary for my job							
21. The work I do is meaningful to me							
22. I have significant influence over what happens in my department							
23. I am self-assured about my capabilities to perform my work activities							

3. Professional Self-Efficacy: Brama, (2004) Henrietta Szold Institute

How far you think you are capable...

	7 Surely capable	6 To a great extent	5 very much	4 Moderately	3 Slightly	2 To a very small extent	1 Unable at all
24. Identify the school's (community) needs in order to formulate a school vision that suits it.							
25. Establish clear goals to be achieved by staff and students							
26. Plan your work week so that you are free to the important things that you consider							
27. Prepare work plans for the school beyond the current school year							
28. Implement plans and decisions made							
29. Operate an effective mechanism for monitoring and monitoring decisions made							

	7 Surely capable	6 To a great extent	5 very much	4 Moderately	3 Slightly	2 To a very small extent	1 Unable at all
30. Coordinate between different school holders and staff so that everyone works towards a common goal							
31. Share a large group of staff in decision-making processes							
32. To give teachers significant powers over important issues							
33. Persist in executing a plan over time, even if you do not see immediate results							
34. Explain and reasonably explain your decisions and instructions							
35. Act enthusiastically and carry the team behind you							
36. Study all the time to expand your education							

	7 Surely capable	6 To a great extent	5 very much	4 Moderately	3 Slightly	2 To a very small extent	1 Unable at all
37. Allow the introduction of change initiated by teachers							
38. Be attentive and caring about the personal issues of the team members							
39. Say a good word to the teacher							
40. Develop the professional ability of even the weaker people in the team							
41. Supporting people and being sensitive to them, without being too relinquished at work							
42. Be involved in promoting school curriculum preparation							
43. Apply diverse teaching methods at school							
44. To serve as a source of knowledge for teachers of pedagogy							

	7 Surely capable	6 To a great extent	5 very much	4 Moderately	3 Slightly	2 To a very small extent	1 Unable at all
45. Perform a professional assessment of teacher performance							
46. Provide teachers with helpful and detailed feedback on their work							

4. Questionnaire for collaboration with the Pisgah staff (Ministry of Education, 2019)

47. Did you meet with the Pisgah team for a consultation on planning the professional development process?

Yes 2. No 1.

48. To what extent did the process of identifying needs advance the construction of the professional development process?

1. Not at all
2. Slightly
3. to a certain extent
4. Very much

49. If so, who made the move and how was it performed?

50. Who was involved in building the professional development process for your school? (You can select more than one option):

- The school principal
- The Pisgah Team
- Total Supervisory Representatives
- Local authority representatives
- Content domain experts

- O Facilitators
- O Guides
- O Teacher representatives from the school

51. Has the professional development process included the following frameworks? (more than one option can be marked):

- O Training for the entire team
- O Learning communities
- O Consulting and guidance services
- O Modular Flexible Learning

Have you received updated information from the Pisgah Center in the following areas?

	very much	to a certain extent	Slightly	Not at all
52. Administrative field: (updated data on the professional development of teaching staff)				
53. The pedagogical field (study organization picture data, individual and organizational needs identification, effectiveness of the libraries arena and more)				

54. Did the activities of the Pisgah Center include tracking, evaluation and feedback from the Pisgah Center?

1. Not at all
2. Slightly
3. To a certain extent
4. Very much

55. Do you think the findings of the evaluation will serve as a basis for making future decisions with all relevant factors regarding the professional development processes at your school?

1. Not at all
2. Slightly
3. To a certain extent
4. Very much

APPENDIX 4- PISGAH learning Organization Program (LOP)

Profile of pedagogical staff

	Ranks			education			
	Ranks 7-9	Ranks 3-6	Ranks 1-2	Master's degree	BA degree holders	With a senior teacher degree	Total members of pedagogical staff
Number of teachers							

Growing and nurturing functionaries

Total number of officials in the organization _____

The area of responsibility	Safety and Security Coordinator	Tour coordinator	Road Safety Coordinator	Social Coordinator	Science Coordinator	English coordinator	Mathematics Coordinator	Language Coordinator	Other
Seniority in office									
Latest professional development in the field (year)									

Internal school learning of regularity

training			Regularity						
Name of regularity									
Number of participating teachers									
Frequency / Scope									

Regularity: Teachers' room, institutional training, staff of educators, lay staff, professional staff (knowledge group), management team, leading team, school community, other Legend Training: Language Skills, Mathematics, Social Education, Computing, Assessment and Evaluation, Other

Professional development in teaching the core areas

domain	Mathematics	Language skills	English
Number of teaching teachers			
Number of teachers who underwent professional development in 2018			
Number of teachers who underwent professional development in 2019			
Number of teachers who underwent professional development in 2020			



EL DESARROLLO PROFESIONAL DOCENTE A TRAVÉS DE UNA ORGANIZACIÓN DE APRENDIZAJE “PROGRAMA PISGAH PARA DIRECTORES EN UN MARCO ESCOLAR”: UN ANÁLISIS MULTINIVEL UTILIZANDO EL MARCO DE COHERENCIA INTERNA

Resumen

En la última década, el desarrollo profesional del personal docente ha sido clave para el avance de los sistemas educativos, ya que mejora la enseñanza, el aprendizaje y el crecimiento profesional del personal. El “Centro PISGAH” en Israel brindó un “Programa de Organización de Aprendizaje”, cuyo objetivo era proporcionar desarrollo profesional para directores de escuelas, adaptado a las necesidades de cada una de ellas.

El objetivo principal del presente estudio fue examinar los factores que están asociados con el desarrollo profesional docente (TPD) a nivel individual del maestro, así como a un nivel más amplio del director. Específicamente, nuestro objetivo fue examinar cómo la autoeficacia de los docentes, la identidad profesional, el nivel de participación en las comunidades de aprendizaje profesional de la escuela y sus percepciones de los patrones de liderazgo transformacional del director afectan su desarrollo profesional.

Además, nos propusimos examinar cómo el empoderamiento y la autoeficacia profesional de los directores influyen en el TPD de los docentes de la escuela y cómo su nivel de participación en el “Programa de Organización del Aprendizaje” (LOP) de PISGAH impacta en el TPD de los docentes de la escuela.

Realizamos un estudio transversal. Se utilizaron datos del año escolar 2020/2021 sobre directores y maestros israelíes. La muestra del estudio estuvo compuesta por 36 directores y 412 docentes de primaria, los cuales fueron seleccionados al azar.

Para evaluar los efectos del nivel de los directores en el nivel de los docentes, se realizó un modelo multinivel. En este modelo, TPD es la variable dependiente completada

por los maestros, y las variables independientes fueron las variables de maestros y directores. Este estudio fue aprobado por el Ministerio de Educación de Israel. Los principales hallazgos mostraron una correlación positiva significativa entre las comunidades de aprendizaje profesional y TPD.

Los resultados también mostraron que la percepción del liderazgo de transformación del director fue un predictor significativo de TPD, y que la autoeficacia de los docentes es un predictor significativo de TPD. Además, el modelo de regresión multinivel combinado de maestros y directores reveló que las percepciones de los maestros sobre el estilo de transformación del director fueron los predictores más fuertes de TPD. Además, el análisis HLM reveló que tanto la autoeficacia de los docentes como la de los directores son variables importantes para predecir el TPD.

Por lo tanto, los hallazgos del estudio enfatizan la importancia de mejorar las habilidades de liderazgo de los directores de escuela para aumentar efectivamente la calidad profesional de su personal docente y de toda la escuela. Estos hallazgos dan fe de la practicidad y la importancia de los centros de aprendizaje PISGA y el programa LOP y exigen un examen más detenido de su implementación y usabilidad en todo el sistema educativo israelí.

Palabras clave: desarrollo profesional docente, directores, programa de organización del aprendizaje, marco de coherencia interna.

JUSTIFICACION DE LA INVESTIGACION

El aprendizaje y la enseñanza ya no son lo que eran ni para los estudiantes ni para el equipo de profesores. Los cambios demográficos, tecnológicos, económicos y políticos, así como los cambios y tendencias globales, crearon nuevos desafíos en la educación. Las escuelas del siglo XXI se enfrentan a una amplia gama de desafíos complejos, como la implementación de tecnología, la gestión del aula y la mejora de los logros de los alumnos. Los roles de los docentes los ubican en el centro de muchos de estos desafíos. Poseen contacto directo con los estudiantes dentro del entorno escolar, así como un control considerable sobre qué y cómo se enseña el conocimiento. El maestro, por lo tanto, debe ser un foco principal al enfrentar estos desafíos (Brown, 2019).

Durante la última década, se ha entendido que el desarrollo profesional del personal docente es la clave para el avance de los sistemas educativos (Liu & Liao, 2019). El TPD, como en cualquier otra profesión con un campo de conocimiento en desarrollo, es fundamental. La profesión docente requiere experiencia, estar continuamente actualizado en varios campos y aprendizaje permanente (Tenekeci & Uzunboyly, 2020).

El objetivo principal del Ministerio de Educación de Israel es crear un aprendizaje significativo a través de una enseñanza de calidad. El desarrollo profesional óptimo es clave para la calidad de un sistema educativo. Tal desarrollo profesional, que enfatiza la conexión entre la práctica y la teoría, debe ser continuo. Esta es una tarea compleja, ya que el trabajo docente es dinámico y contiene muchos campos de conocimiento, pedagogía, métodos, aspectos educativos genéricos y atención a las demandas de los estudiantes.

Nuestro estudio se centra en las escuelas primarias ubicadas en los cinco distritos de Israel (Jerusalén, Tel Aviv, Central, Haifa, Norte) y pertenecientes a los Centros PISGAH. Como organizador externo, los Centros PISGAH desempeñan un papel clave en el desarrollo de las políticas con respecto al avance profesional y la implementación de un programa de aprendizaje en las escuelas, ya que ayuda a mapear las necesidades de cada una de las mismas mientras crea programas de desarrollo profesional personalizados para el personal. Este tipo de modelo también permite un seguimiento y apoyo a largo plazo, a diferencia de los cursos de formación extraescolares, que son esencialmente de tiempo limitado y se centran en un solo tema genérico y son atendidos por profesores de diferentes formaciones.

Este estudio tiene como objetivo examinar los factores que promueven TPD dentro del entorno escolar a través de un modelo IC. En el marco del Centro PISGAH, el TPD está dirigido por el director de la escuela en colaboración con el equipo educativo y con la asistencia del Programa de Organización del Aprendizaje del Centro. Este último ofrece al personal educativo la oportunidad de empoderarse a sí mismo y a la escuela, y la oportunidad de desarrollarse como una organización de aprendizaje. El estudio actual puede proporcionar datos confiables para que los líderes escolares y los tomadores de decisiones los usen con respecto al desempeño de su equipo. También puede contribuir a la implementación de una variedad de actividades para la mejora de los procesos de desarrollo profesional dentro y fuera de la escuela, y una mejor comprensión de los mecanismos de organización.

El Programa de Aprendizaje se pondrá en marcha mediante la evaluación del nivel de implementación del Programa. En Israel, TPD se lleva a cabo bajo el liderazgo de los directores, en colaboración y con la asistencia de PISGAH, apoyado por el Ministerio de Educación. Este programa está diseñado tanto para fomentar el empoderamiento del personal educativo como para desarrollar la escuela como una organización de aprendizaje. El Programa propuesto por PISGAH enfatiza el mapeo de las características de los docentes (p. ej., antigüedad, función, áreas de aprendizaje continuo y desarrollo profesional) y lo hace accesible para que los directores puedan utilizarlo para determinar las áreas apropiadas para el desarrollo profesional de los docentes.

Los Centros PISGAH son estructuras organizativas pedagógicas flexibles diseñadas para satisfacer las necesidades de desarrollo y avance profesional del personal docente siguiendo los requisitos del Ministerio de Educación, los municipios, las prioridades distritales y las banderas educativas. Los Centros PISGAH son de carácter regional para el desarrollo y empoderamiento del personal docente a lo largo de sus carreras profesionales, mediante la combinación de objetivos sistémicos nacionales de acuerdo con las condiciones locales específicas. Los Centros Regionales PISGAH operan en línea con conceptos y conocimientos actualizados en una variedad de marcos de acción.

El desarrollo profesional docente es acompañado por el Centro PISGAH en todas las etapas: desde la planificación basada en el contexto escolar, el desarrollo y la implementación, y hasta el aprendizaje del proceso, la mejora y la reimplementación. Los Centros PISGAH brindan una respuesta relevante y de calidad a las necesidades de

desarrollo profesional de docentes y directores. Formulan un programa basado en los principios aceptados para el desarrollo de los docentes y lo ubican dentro del contexto escolar único. La implementación de la imagen de una organización de aprendizaje contribuye al empoderamiento personal y organizacional del personal, así como del director como líder pedagógico.

El TPD puede verse como un espectro de desarrollo del personal docente como individuos y luego desde un punto de vista más amplio de la relación entre el personal docente y la escuela. El desarrollo profesional también puede desviarse del enfoque dentro de la escuela y expandirse a la necesidad de compararse con otras instituciones en la era de la competencia y reducción de recursos. TPD se ha convertido en un foco principal de las iniciativas de reforma escolar principalmente debido al interés en la visión de la eficacia de los docentes y los logros de los estudiantes continúan en una dirección positiva, se deben implementar cambios significativos en el conocimiento, las prácticas docentes y el TPD continuo a lo largo de la carrera es esencial para lograr un buen aprendizaje (Choy & Chua, 2019; Vermunt et al., 2019). A lo largo de los años, el sistema educativo israelí ha buscado promover la calidad y el nivel de enseñanza en las escuelas implementando el TPD (Pomson & Grant, 2004). El Ministerio de Educación de Israel ha definido el TPD como un proceso que combina conocimientos, habilidades y enseñanza colaborativa.

SECCIÓN I. MARCO TEÓRICO

1. PERSPECTIVAS TEÓRICAS Y DE MODELOS

1.1.1 EL MODELO DE COHERENCIA INTERNA

El estudio utilizó el marco de desarrollo de coherencia interna (IC) como marco teórico para analizar los factores que promueven el desarrollo profesional entre los docentes. El marco IC es una teoría sobre cómo se produce la mejora en la enseñanza y el aprendizaje en las escuelas, cuando los recursos, incluyendo el director y los maestros, están alineados (Elmore et al., 2014). El marco IC comprende un sistema de mejores prácticas basadas en la investigación para medir y fomentar las condiciones que apoyan el aprendizaje de los docentes y los estudiantes en las escuelas. Se define como la capacidad de los educadores en una escuela o sistema educativo para llevar a cabo una estrategia de mejora, participar en el aprendizaje colectivo y utilizar ese aprendizaje para brindar a los estudiantes mejores oportunidades educativas (Forman et al., 2017).

Además, el modelo IC reúne áreas de investigación previamente no vinculadas, incluido el liderazgo y el aprendizaje organizacional, y las combina en un marco de desarrollo para comprender cómo el entorno escolar influye en las percepciones del personal sobre el éxito en la enseñanza y el aprendizaje (King & Bouchard, 2011). Por lo tanto, el modelo IC de evaluación y desarrollo profesional brinda a los profesionales valiosas instrucciones sobre cómo mejorar las condiciones organizativas de la escuela. También se enfoca en mejorar la instrucción escolar, las prácticas administrativas y el aprendizaje de los estudiantes al examinar sus procesos a lo largo del tiempo (Elmore et al., 2014). Por lo tanto, este marco permite una perspectiva más amplia para los investigadores a largo plazo, ya que se concentra en el todo, en lugar de en los individuos, lo que contribuye a comprender los procesos que facilitan o frenan las mejoras.

Este modelo admite que los maestros están influenciados principalmente por las experiencias que ocurren en el presente, más que en el pasado. Por lo tanto, el proyecto IC tiene como objetivo desarrollar la comprensión y la capacidad de los maestros, directores y otros miembros del personal para promover las características positivas de los entornos escolares efectivos. En general, las políticas de rendición de cuentas y las estrategias de mejora escolar tendrán éxito solo si las escuelas y sus sistemas pueden crecer, adaptarse y aumentar sus conocimientos, habilidades y funciones integradoras con el tiempo. Si reconocemos que los estudiantes aprenden en diferentes niveles, esto significa que no solo los docentes deben operar de manera diferente, sino que también deben estar aprendiendo individual y colectivamente cómo hacer las cosas de manera diferente (Garet et al., 2001).

El marco de Protocolo y Evaluación de Coherencia Interna (ICAP) es una herramienta destinada a achicar la brecha entre la investigación y la práctica al proporcionar a los líderes escolares información sobre prácticas específicas de liderazgo, procesos organizacionales y creencias de eficacia docente que pueden usar para fomentar la capacidad de mejora de su escuela. ICAP mide los tres dominios amplios de IC: 1. Prácticas de liderazgo para la mejora de la instrucción, 2. Procesos organizativos (en dos niveles: toda la escuela y el equipo), y 3. Creencias de eficacia (City et al., 2009; Cohen & Ball, 1999).

Además, ICAP reconoce procesos organizacionales específicos que apoyan el aprendizaje continuo. Las políticas de rendición de cuentas aumentan la motivación y la mejora a largo plazo. Además, cuando se reconoce un nuevo entorno de políticas, las

personas de la organización deben aprender nuevos comportamientos y adaptarse a nuevas situaciones tanto individual como colectivamente (Elmore, 2014). También, el marco ICAP ayuda a los administradores y maestros a determinar prácticas específicas que podrían fortalecer las creencias de eficacia de los maestros con el tiempo. ICAP pretende ser útil como instrumento clínico. Está diseñado para generar información sobre la escuela que los líderes escolares y sus supervisores pueden usar para identificar los elementos más fuertes que pueden mover a una escuela en particular a lo largo de una trayectoria de desarrollo que generará una mejora continua en la escuela en su totalidad.

Prácticas de liderazgo para la mejora de la instrucción

La literatura muestra inconsistencias en la definición del término liderazgo. Bass, y Stogdill (1990) definieron el liderazgo como conectado a los deseos de los líderes, Kotter (1988) enfatiza las influencias de los líderes y Rost (1993) definió el liderazgo como una relación. Entre ellos, la definición de Rost (1993) es más práctica, brinda orientación a los directores para mejorar el desarrollo del liderazgo del profesor.

El liderazgo es un requisito importante cuando las personas se reúnen en equipos para realizar ciertas tareas. Según Miner (2006), los gerentes exitosos se caracterizan por ser activos y prácticos. Son flexibles y capaces de adaptarse a nuevas situaciones. Otra característica importante de los líderes es la versatilidad. Afecta la eficacia de su liderazgo y es una habilidad valiosa que ayuda tanto a los líderes como a sus subordinados a manejar diversas situaciones (Kaplan, 1996). Robbins y Judge (2009), brindan teorías destacadas sobre el liderazgo y sugieren que los líderes poseen cualidades y características personales que diferencian a los líderes de los no líderes (Bodla & Nawaz, 2010). El liderazgo influye en el comportamiento organizacional, así como en el pensamiento de las personas dentro de la organización (Wu et al., 2016).

Los líderes juegan un papel importante en la creación de estructuras sólidas y en el fomento de una cultura de instrucción que apoye a su personal en su intento de alcanzar los objetivos de mejora (Seashore et al., 2010). El liderazgo escolar se puede categorizar como instructivo o transformacional. Tradicionalmente, el liderazgo educativo ve al director como la principal fuente de experiencia educativa, responsable de mantener altas expectativas para los maestros, coordinar el plan de estudios, supervisar la instrucción y monitorear el progreso de los estudiantes. Este enfoque en la instrucción requiere una

competencia básica en la práctica de instrucción. El liderazgo transformacional tiene como objetivo transformar las culturas escolares, proporcionando una dirección intelectual que fomente la innovación, empodere y apoye a los docentes (Türkoğlu & Cansoy, 2018).

Investigaciones recientes indican que el liderazgo escolar que puede integrar aspectos de los dos tendrá el efecto más potente en las prácticas de instrucción de los docentes (Liu, et al., 2021). Las prácticas de liderazgo asociadas con un alto IC combinan el concepto de liderazgo instructivo compartido (Marks & Printy, 2003) con el enfoque en la cultura asociada con el liderazgo transformacional, particularmente en lo que se refiere a la creación de un entorno de aprendizaje (Edmondson, 2002). Los directores dotados de liderazgo instruccional mantienen un diálogo permanente y la toma de decisiones conjunta con su personal en torno a la instrucción y el aprendizaje de los estudiantes y al mismo tiempo continúan siendo agentes centrales del cambio (Rodrigues & Ávila, 2021).

El dominio de liderazgo del marco IC también se basa en el aprendizaje organizacional, específicamente en la conclusión de que los líderes en organizaciones con una alta capacidad de mejora fomentan el aprendizaje continuo y trabajan activamente para establecer procesos organizacionales y una cultura orientada al aprendizaje (OCDE, 2016). Las prácticas de liderazgo asociadas con altos niveles de IC están remarcadas por cuatro factores claves: modelar el aprendizaje público, crear un entorno de aprendizaje, participación activa en la enseñanza y proporcionar un desarrollo profesional significativo (Liou & Daly, 2020).

Procesos organizacionales de la escuela y del equipo

Los estudiosos del aprendizaje organizacional sugieren que las organizaciones mejoran cuando desarrollan la capacidad de aprendizaje y liderazgo, y cuando se enfocan deliberadamente en el aprendizaje del equipo, en lugar del aprendizaje individual (Mishra & Reddy, 2021). Para que una escuela funcione como un sistema, a diferencia de un conjunto de individuos que operan por separado, debe establecer las estructuras y protocolos para participar en el trabajo colectivo. Los docentes individuales deben comprender que estas estructuras y procesos, alineados con los objetivos de mejora de la escuela, apelan a sus conocimientos y habilidades (Hutchinson, 2020).

Los procesos de toda la escuela para la mejora de la instrucción abarcan la estrategia de mejora de las escuelas, la participación de los maestros en las decisiones de instrucción y la comprensión compartida de la práctica efectiva. A nivel general, de toda la escuela, los procesos organizacionales alinean los recursos y las prácticas para cumplir con los objetivos de mejora, mientras monitorean colectivamente el progreso y responden a las necesidades de aprendizaje de manera continua. En las escuelas con altos niveles de IC, los procesos de toda la escuela están estrechamente alineados con la estrategia de mejora. Cuando los docentes sienten que los objetivos de mejora en la organización son realistas, medibles y alineados con los programas, iniciativas y currículos existentes, la relación entre los procesos organizacionales y la estrategia de mejora es sólida (Elmore et al., 2014).

Creencias de eficacia individual y colectiva

A partir de sus experiencias colectivas, los docentes desarrollan creencias sobre su eficacia para apoyar el aprendizaje de los estudiantes. El dominio de la eficacia se basa en la teoría cognitiva social, que identifica las experiencias exitosas pasadas como el impulsor más potente de las creencias de eficacia (Bandura, 1997).

Las creencias de eficacia sirven como resultados cercanos y a su vez, proponemos que el desarrollo profesional debe centrarse en las prácticas de liderazgo y en los procesos organizativos de toda la escuela y del equipo que generarán mejoras reales en el aprendizaje colectivo de los docentes sobre una práctica educativa sólida. Estos cambios en la práctica deberían, a su vez, crear experiencias de dominio para los docentes que fortalecerán sus creencias de eficacia tanto individuales como colectivas (Puchner & Taylor 2006; Tschannen-Moran & Johnson, 2011). Por lo tanto, sugerimos que una escuela con un alto nivel de IC será capaz de capitalizar recursos internos o externos a la organización para fines colectivos poderosos. IC es la capacidad de la escuela para funcionar como una organización unificada, en lugar de un grupo de profesionales individuales, y cumplir con sus funciones básicas de enseñanza y aprendizaje.

1.1.2 DESARROLLO PROFESIONAL DEL PROFESOR [TPD]

TPD aborda el desarrollo del conocimiento, las habilidades, la percepción del rol y la autoeficacia de un maestro (Murodovna, 2019). El desarrollo profesional óptimo ayuda al docente a comprender y definir mejor los dilemas a los que se enfrenta y les

brinda un amplio conjunto de herramientas para ejercitar su juicio en el aula y ayudar a sus alumnos en el proceso de aprendizaje (Brown, 2019).

El TPD se ha definido como un proceso a través del cual un docente adquiere confianza en sí mismo, adquiere nuevas perspectivas, adquiere más conocimientos y experiencia, descubre nuevas técnicas y asume nuevos roles (Evers et al., 2016). La OCDE entiende TDP como “El desarrollo profesional se define como actividades que desarrollan las habilidades, el conocimiento, la experiencia y otras características como docente “(OCDE, 2009, p. 51). De hecho, la participación de los docentes en el desarrollo profesional es un indicador de la calidad docente (Blömeke et al., 2016), lo que, a su vez, impacta significativamente en el aprendizaje de los estudiantes (Ainley & Carstens, 2018).

A nivel nacional, los líderes son responsables de mantener el desarrollo profesional de sus docentes y brindarles ayuda profesional. Consistentemente, a nivel de distrito y escuela, los directores y el equipo escolar están obligados a alcanzar metas y cumplir con altos estándares académicos (Darling-Hammond et al., 2017; Ghasemiyan et al., 2019). Además, los estudios demostraron que el TPD continuo ayuda a los docentes a sentir un mayor control sobre su vida profesional, aumenta su sentido de eficacia y los motiva a ejercer más esfuerzo, persistencia y resiliencia (Bekenova, 2016; Yilmaz, 2016). Claramente, involucrarse en un TPD de calidad es un proceso de por vida que comienza en la formación previa al servicio, pero como lo señala la OCDE (2009), independientemente de la calidad de la formación previa al servicio de los docentes, no se puede esperar que los prepare para todos los desafíos que enfrentarán a lo largo de sus carreras. Por lo tanto, los docentes deben esforzarse por mejorar y convertirse en aprendices de por vida (Şahin & Koca, 2016).

1.1.3 COMUNIDAD DE APRENDIZAJE PROFESIONAL

Una comunidad de aprendizaje profesional (PLC) es una asociación de educadores que trabajan juntos para desarrollar la calidad de su enseñanza (Doğan & Adams, 2018). También es una estrategia eficaz en el desarrollo de los docentes (Bobby et al., 2010; Cesareni et al., 2011; Chou, 2011). Además de ocupar puestos individuales, los maestros también son miembros del sistema escolar, al igual que sus alumnos.

Un PLC es muy diferente del programa tradicional de desarrollo docente, organizado por expertos, ya que se centra en el desarrollo profesional permanente, donde los docentes comparten su experiencia dentro de su propia comunidad profesional (Stoll et al., 2006; Tam, 2015). Basado en la teoría del aprendizaje social de Bandura, un PLC proporciona una perspectiva alternativa sobre el desarrollo profesional de los docentes, donde los docentes son vistos como aprendices y la escuela como la base de una comunidad de aprendizaje (Long, et al., 2021).

Los PLC actúan como un marco para apoyar la mejora basada en la escuela (Prentice, 2016). En una comunidad de este tipo, los maestros comparten sus experiencias y trabajan juntos para resolver problemas, utilizando lo que han aprendido en la comunidad (Friedrichsen & Barnett, 2018; Tam, 2015), además de desarrollar su comprensión de las políticas educativas y los materiales del plan de estudios utilizando un paradigma colaborativo basado en la investigación (DuFour, 2004). Los PLC no solo promueven los esfuerzos de cambio, sino que también tienen un papel importante en la mejora del rendimiento escolar general (Friedrichsen & Barnett, 2018; Pang et al., 2016). Los PLC ofrecen un marco para la práctica docente relacionada con la construcción del conocimiento y los procesos de cambio a través de la colaboración con colegas (Friedrichsen & Barnett, 2018; Prentice, 2016; Sjoer & Meirink, 2016).

Una comunidad de aprendizaje profesional se compone de tres conceptos importantes: En primer lugar, es aprender en todos los niveles de la escuela (individual, equipo, escuela) a través de la autorreflexión crítica. La segunda es la indagación dirigida al avance de la profesión. En tercer lugar, es el aprendizaje basado en la comunidad, la calidad de las relaciones entre los miembros hace posible el aprendizaje y la mejora (Verbiest, 2011).

1.2. NIVEL DOCENTE: FACTORES QUE PREDICEN TPD

1.2.1 IDENTIDAD PROFESIONAL DE LOS DOCENTES

El término identidad, como sostienen Beauchamp y Thomas (2009), es un proceso dinámico y continuo que está ligado a la interpretación que uno tiene de sí mismo y a la interpretación que tiene de sí mismo la sociedad en general. De manera similar, Wenger (1998) sostiene que la identidad se (re)construye a través de “la tensión entre nuestra inversión en las diversas formas de pertenencia y nuestra capacidad para negociar los significados que importan en esos contextos” (p. 188). Las definiciones y conceptualizaciones anteriores de la identidad demuestran su naturaleza específica del contexto y la cultura, además de ser dinámicas y sujetas a cambios.

La identidad profesional de los docentes, tal como la definen Kramer y Hoffman (1981), es su sentido de pertenencia e identificación con la profesión. Además, Beijaard (1995) afirma que, aunque tenemos poca comprensión de los procesos que dan forma a la identidad profesional de los docentes, esta identidad puede describirse como “la respuesta a la pregunta de quién es él o quien es alguien, la totalidad de los diferentes significados que las personas se atribuyen a sí mismos (ataduras) o el significado asignado por otros” (Beijaard, 1995, citado en Živković, 2013, p. 152). Además, Beijaard (1995) sugiere que la autoeficacia y la preparación de los docentes para hacer frente a los cambios educativos están determinadas por su identidad profesional. Afirma que debemos explorar la forma en que los docentes consolidan su identidad profesional, por el fuerte impacto que ésta tiene en sus decisiones y juicios profesionales.

En el mundo educativo, la identidad profesional docente se refiere a “cómo los docentes se definen a sí mismos y a los demás” (Lasky, 2005, p. 901). El proceso de adquirir una identidad profesional comienza ya en la formación como futuros maestros (Gracia et al., 2019). Su identidad se remodela constantemente, a medida que avanzan en la formación docente y asumen posiciones como docentes en los desafiantes contextos escolares de la actualidad. Además, pueden experimentar más cambios de identidad a lo largo de sus carreras, derivados de interacciones dentro de las escuelas y en comunidades más amplias.

1.2.2 AUTOEFICACIA DE LOS DOCENTES

Según Bandura (1997), la autoeficacia influye en el comportamiento al determinar qué metas y desafíos se fijan los individuos, cuánto esfuerzo eligen invertir para alcanzar sus metas y superar los desafíos, y en qué medida persisten frente a los desafíos, dificultades y obstáculos. La autoeficacia de los docentes, específicamente, puede verse como las creencias que los docentes en servicio y en formación tienen sobre su potencial para organizar y ejecutar las acciones requeridas para cumplir con la misión docente dada con respecto a la instrucción, la gestión del aula y la participación de los estudiantes. El concepto de autoeficacia de un maestro se refiere a lo que el maestro individual puede hacer. El sentido de autoeficacia del maestro afecta el aprendizaje de los estudiantes porque influye en la elección de instrucción (Bandura, 1997; Ross, 1998). Así, Bandura (1997) (citado por Pfitzner-Eden, 2016) propuso cuatro fuentes de autoeficacia: experiencias de dominio, experiencias vicarias, persuasión verbal y estados fisiológicos y afectivos.

La autoeficacia docente se considera un constructo subyacente que influye en el conocimiento y el control de los docentes sobre la materia, la base, las estrategias de enseñanza y el deseo de tener un impacto en los estudiantes (Benoliel & Berkovich, 2021). También se refiere a la creencia de los docentes en sus habilidades para lograr los resultados deseados en su enseñanza y el aprendizaje de los estudiantes (Sun & Xia, 2018). Los estudios sugieren que los docentes con una mayor autoeficacia tienden a utilizar técnicas de enseñanza más desafiantes y apropiadas (Pan, 2014) y programas de enseñanza innovadores (Hsiao et al., 2011). Al mismo tiempo, la autoeficacia aumenta el compromiso de los docentes con su desarrollo profesional individual (Yang, 2020).

Según la literatura anterior, cuando los maestros se enfrentan a problemas o comportamientos desafiantes de los estudiantes, es menos probable que los maestros confiados respondan de manera hostil o defensiva (Summers et al., 2017). Por otro lado, los docentes con creencias de autoeficacia más bajas pueden adoptar comportamientos de control o defensivos que no solo dificultan el entorno de aprendizaje, sino que también establecen un patrón de comunicación marcado por la hostilidad y la inseguridad. fortalecer la calidad de la relación que tienen los docentes con sus alumnos (Hajovsky et al., 2020).

1.2.3 LOS ROLES DE LOS DOCENTES EN UNA INSTITUCIÓN EDUCATIVA

La definición de docente tal como se utiliza para TALIS 2018 es "una persona cuya actividad profesional implica la transmisión de conocimientos, actitudes y habilidades a los estudiantes matriculados en un programa educativo" (Ainley & Carstens, 2018, p.73). Esta definición no depende de la calificación que posea el docente ni del mecanismo de entrega. El rol del docente se ve afectado por dos tipos principales de funciones. La primera está asociada a la normativa del país. La segunda está relacionada con la pedagogía y la teoría de la educación. El encaje de los docentes en la sociedad se rige por un conjunto complejo de roles que difieren según la sociedad y el nivel educativo que se desempeñan en la escuela y la comunidad respectivamente, por lo que el rol de los docentes difiere de acuerdo a la sociedad y cultura de la misma comunidad escolar.

La escuela aborda los roles de los docentes como la tarea principal de permitir una experiencia de enseñanza bien comprensible que demuestre la herencia de ideas importantes y la adquisición de buenas capacidades, que en última instancia cumplen con los estándares educativos (Xhemajli, 2016). Además, un gran factor de motivación en los alumnos es la alineación de las lecciones con sus intereses, lo que implica que los profesores han influido y transformado las habilidades de aprendizaje de los alumnos, lo que genera una gran satisfacción y motiva a los profesores a esforzarse más y convertirse en mejores profesores. Además, la fuerte influencia que tienen los docentes en la calidad de la instrucción y el rendimiento de los estudiantes es ampliamente aceptada (Ainley & Carstens, 2018).

El objetivo principal de los maestros es brindar conocimiento y enseñar en un salón de clases que permita a los estudiantes aprender. Para lograr esto, los maestros están constantemente involucrados en la preparación de lecciones efectivas, la revisión de exámenes, la retroalimentación y el aliento, la gestión de los materiales del aula, la navegación productiva en el plan de estudios y la colaboración con el equipo de la escuela (Donoghue, Voytek & Ellis, 2021; Lovett, 2018). Además, el maestro es responsable de crear un ambiente que permita a los estudiantes aprender y crecer. Los docentes pueden lograr esto estableciendo un aula estimulante y atractiva con procedimientos y rutinas (Feiman-Nemser, 2008; Main, 2018). Aunque el deber principal de los docentes es impartir conocimientos de la manera más eficiente, el tiempo que los docentes pasan con sus alumnos los obliga a actuar también como modelos a seguir que tienen una gran influencia en el bienestar de sus alumnos. Además, los profesores se convierten en una

especie de padres sustitutos y mentores de sus alumnos, animándolos y siendo una fuente de inspiración y consejo.

1.2.4 LIDERAZGO DEL PROFESOR EN EL AULA

El liderazgo docente permite que los docentes, solos o con colegas, influyan en otros docentes y personas adicionales de la escuela para mejorar el proceso de enseñanza-aprendizaje para lograr un mejor rendimiento de los estudiantes (Shen et al., 2020). Los líderes docentes tienen como objetivo mejorar las escuelas enseñando a los estudiantes e influyendo en otros dentro y fuera de la escuela (Wenner & Campbell, 2017). La definición de liderazgo docente según Wenner & Campbell (2017) es un proceso mediante el cual los docentes, individual y colectivamente, influyen en la organización escolar, es decir, sus colegas, directores y otros miembros para mejorar el aprendizaje y las prácticas de enseñanza con un aumento en el rendimiento de los estudiantes. Wenner y Campbell (2017) ofrecieron sus definiciones de liderazgo docente en términos de aquellos que asumen la responsabilidad en línea con el liderazgo fuera del aula.

El liderazgo docente está asociado con la colaboración entre pares (p. ej., reuniones de comunidades de aprendizaje profesional) o interacciones informales (p. ej., interacciones diarias, intercambio y comunicación con otros docentes) (Nolan & Palazzolo, 2011), basado en el beneficio mutuo, el respeto y la confianza (Grant, 2006; Leonard et al., 2012; Nolan & Palazzolo, 2011). La influencia de los profesores se divide en varios niveles. Incluye líderes docentes que buscan no solo la "excelencia pedagógica" dentro de su salón de clases, sino que también pueden expandir su impacto a nivel escolar y más allá (Chew & Andrew, 2010; Nguyen et al., 2019).

Comúnmente, la interpretación del liderazgo docente es aquella con la que se asocian la influencia, el impacto y los resultados en el punto de vista literal. La intención de mejorar las prácticas de instrucción recae en el liderazgo docente (Rutherford, 2006; Smith et al., 2017; Taylor et al., 2011). Esto es para promover la eficacia escolar y, en última instancia, mejorar el aprendizaje de los estudiantes (Eckert et al., 2016; Smith et al., 2017). El liderazgo docente se identifica por: 1. La influencia es el resultado del proceso de liderazgo docente; 2. La colaboración y la confianza son la base sobre la que se ejerce el liderazgo docente; 3. El salón de clases no es una limitación en cuanto al liderazgo docente; 4. el liderazgo docente tiene como objetivo mejorar la calidad de la instrucción, la eficacia escolar y el aprendizaje de los estudiantes. La definición de liderazgo docente constituye tres focos de desarrollo intencional. Los tres focos se

componen de 1. Desarrollo individual, 2. Colaboración o desarrollo de equipo, y 3. Desarrollo organizacional (Cooper et al., 2016).

El liderazgo docente efectivo es una condición necesaria para el logro de los estudiantes, ya que su propósito esencial es maximizarlo (Hamzah et al., 2016). Harris y Jones (2019) creen que es una influencia general, no un rol formal; una acción que va más allá de los roles formales de los docentes centrados en el aula, compartiendo el trabajo e iniciando cambios, fomentando así la excelencia pedagógica. De esta forma, el liderazgo docente está íntimamente ligado a la mejora de los resultados frente a los problemas de aprendizaje, en la medida en que estos son identificados y abordados en conjunto con los estudiantes, mediante el uso de estrategias de enseñanza y aprendizaje efectivas (Warren, 2018).

1.3. NIVEL DE LOS DIRECTORES: FACTORES QUE PREDICEN TPD

1.3.1 EMPODERAMIENTO PSICOLÓGICO EN LAS ORGANIZACIONES

Una revisión sistemática reciente sobre el empoderamiento organizacional señala la importante distinción entre los términos “empoderando organizaciones” y “organizaciones empoderadas”. La definición de empoderamiento de las organizaciones se refiere al empoderamiento de las personas dentro de la organización y puede que no afecte específicamente el contexto más amplio del que forman parte. Sin embargo, por otro lado, las organizaciones empoderadas impactan la política social y afectan el contexto más amplio al enfocarse en las construcciones organizacionales que están separadas y distintas del nivel individual (Rothman, et al., 2019). Una definición anterior de Conger y Kanungo (1988) establece que el empoderamiento es una percepción o un enfoque de un individuo hacia su rol en el lugar de trabajo. Teniendo en cuenta el papel crítico del individuo en el éxito organizacional, el empoderamiento individual es esencial. Por lo tanto, para mejorar el resultado organizacional, los gerentes deben aumentar el empoderamiento a nivel del individuo, es decir, del empleado (Mufti et al., 2020).

El empoderamiento organizacional está asociado a elementos psicológicos. Spreitzers (1995) definió el empoderamiento psicológico como un tipo de motivación intrínseca que se manifiesta mediante cuatro tipos de cognición: 1. Significado: el valor percibido de un trabajo o tarea, que hace que el trabajo sea significativo (Block, 1987; Schein, 1985). 2. Competencia: Guerriero y Revai (2017) definieron la competencia docente como la capacidad para abordar demandas complejas en una determinada

situación mediante el uso de una variedad de componentes psicosociales (es decir, cognitivos, funcionales, personales y éticos). 3. Autodeterminación: Los cambios en la profesión docente provocados por transformaciones en los campos de la economía, la tecnología, la pedagogía y la sociedad (Eacute & Esteve, 2000; Flores, 2016) son percibidos como una oportunidad para un mayor crecimiento por parte de algunos docentes y como una amenaza potencial y una fuente de presión por parte de otros (Fussangel & Dizinger, 2014).

Vansteenkiste et al. (2020) proporcionan un marco teórico valioso para examinar si la presión social experimentada se relaciona con el funcionamiento relacionado con el trabajo de los docentes y por qué. De acuerdo con la Teoría de la Necesidad Psicológica Básica, los maestros prosperarán más cuando hayan satisfecho sus necesidades psicológicas básicas que se refieren a los siguientes tres componentes: autonomía (es decir, experimentar una sensación de volición y libertad psicológica), competencia (es decir, experimentar una sensación de dominio y efectividad) y relación (es decir, experimentar una sensación de conexión y cuidado mutuo) (Vansteenkiste et al., 2019).

La asociación entre la presión social y el funcionamiento de los docentes en el lugar de trabajo puede examinarse utilizando el marco de la teoría de la autodeterminación (Vansteenkiste et al., 2020). Además, la Teoría de la Necesidad Psicológica Básica sostiene que la satisfacción de las necesidades de autonomía, competencia y relación de los docentes dará como resultado un funcionamiento óptimo relacionado con el trabajo de los docentes (Vansteenkiste et al., 2019). Pasando de la definición general de empoderamiento en las organizaciones, pretendemos referirnos específicamente al empoderamiento en entornos educativos. El empoderamiento psicológico en las escuelas y en las organizaciones educativas consiste en la competencia de los docentes para avanzar en su desarrollo personal y profesional y para hacer frente a sus problemas. Al mismo tiempo, los sistemas escolares deben crear oportunidades para desarrollar competencias, aumentar la capacidad de distribuir roles en la toma de decisiones y aumentar las oportunidades para una participación colectiva significativa de los docentes (Tindowen, 2019).

El empoderamiento de los empleados se asocia con efectos positivos en la satisfacción laboral y da como resultado una reducción del agotamiento entre los empleados (Wong & Laschinger, 2013). Cada vez más estudios hablan que el liderazgo influye fuertemente en la creación de entornos laborales empoderadores y en el

mantenimiento de la satisfacción entre los empleados (Mufti, 2020). La implementación eficiente del empoderamiento entre los empleados depende del liderazgo organizacional. Cuando el liderazgo tiene éxito, los resultados muestran una mejora de la participación y la autonomía de los empleados en el trabajo. Para desarrollar el empoderamiento entre los empleados, los líderes deben fomentar la participación de los empleados y mostrar preocupación por ellos (Muftí et al., 2020).

1.3.2 LA AUTOEFICACIA DEL DIRECTOR ESCOLAR

Bandura (1997), muy conocido por su teoría cognitiva social, sentó las bases y antecedentes del término autoeficacia. Se define como el grado de creencia de una persona de que puede movilizar sus recursos cognitivos y métodos de acción para funcionar correctamente y tener éxito en la realización de tareas. La autoeficacia es el sentimiento subjetivo que tiene una persona al abordar una tarea, especialmente una nueva. Antes de abordar una tarea, uno juzga su capacidad para organizar y ejecutar con éxito un comportamiento o conjunto de comportamientos que conducirán al resultado deseado de esa tarea.

La literatura proporciona evidencia de varios efectos positivos de la autoeficacia de los directores, como la influencia positiva en sus actitudes laborales. Además, impacta positivamente en la eficacia colectiva docente (Hallinger et al., 2018), las condiciones escolares (Leithwood & Jantzi, 2008) y la eficacia escolar (Gümüş, 2020). A su vez, parece existir una conexión positiva entre la autoeficacia de los directores y sus comportamientos de liderazgo, como la capacidad de los directores para establecer direcciones, desarrollar al personal escolar, administrar programas de instrucción y generar cambios organizacionales (Leithwood & Jantzi, 2008) o su capacidad para exhibir comportamientos de liderazgo instructivo (Hallinger et al., 2018). A la luz de estos hallazgos, es posible formular la hipótesis de una relación positiva entre la mayor autoeficacia percibida de los directores y su capacidad para hacer frente a los desafíos y posibles fracasos y ejercer mayores habilidades de liderazgo.

1.3.3 ORGANIZACIONES DE APRENDIZAJE

El término "organización de aprendizaje" fue establecido por Peter Senge y sus colegas en 1990. Según Senge (1990), una organización que cultiva el pensamiento original combina el desarrollo del aprendizaje y amplía su capacidad para lograr los resultados deseados puede denominarse organización de aprendizaje. Por lo tanto, las

organizaciones que alientan a sus miembros a aprender y desarrollarse continuamente permiten que la organización se vuelva más adaptable y productiva (Dash, 2019). Con esto, Senge (1990) desarrolló el concepto de organización inteligente al relacionar el concepto de aprendizaje organizacional con el concepto de pensamiento sistémico y modelos mentales.

Además, Senge (1990) destaca que para el crecimiento de una organización son esenciales tanto los aprendizajes individuales como los aprendizajes organizacionales. Por lo tanto, dicho aprendizaje requiere un entorno propicio para el pensamiento independiente, nuevas ideas y aprendizaje continuo. La transformación a una organización de aprendizaje puede hacer que la organización sea flexible, adaptable y productiva, permitiéndole desempeñarse excepcionalmente en un mundo competitivo. Además, Senge (1990) identificó cinco disciplinas que una organización debe dominar para convertirse en una organización de aprendizaje. Las disciplinas son el aprendizaje en equipo, el dominio personal, la construcción de una visión compartida, los modelos mentales y el pensamiento sistémico. Al mismo tiempo, Hodgkinson et al., (1998) se refieren al aprendizaje organizacional como las interacciones entre los individuos con su estilo de aprendizaje y las interacciones con el grupo.

Investigaciones recientes sobre la organización de aprendizaje señalan otras definiciones. Kools y Stoll (2016) definen una organización que aprende como un proceso continuo de integración e interpretación colectiva del conocimiento que mejora la capacidad colectiva de la organización para dar sentido y responder al cambio interno y externo. Por otro lado, Odor (2018) definió a las organizaciones de aprendizaje como organizaciones que tienen la habilidad de crear, adquirir y transferir conocimientos y, al mismo tiempo, modificar su comportamiento para reflejar nuevos conocimientos e ideas. Por lo tanto, una organización de aprendizaje ayuda a mejorar el aprendizaje organizacional mediante la creación de estructuras, ajustes estratégicos y elaboración estratégica (Odor, 2018). En sí, una organización de aprendizaje ideal promueve y facilita el aprendizaje de todos sus miembros.

Los líderes organizacionales son pioneros en el ámbito de la puesta en marcha del aprendizaje continuo en las organizaciones con énfasis en el empoderamiento de cada integrante. Por lo tanto, una organización de aprendizaje requiere la expansión de los deberes y responsabilidades de un individuo para lograr los resultados deseados. También requiere que las personas trabajen en equipo y compartan una visión común. Además, una

organización de aprendizaje debe centrarse en las siguientes áreas: pensamiento colectivo, dominio de los individuos de su trabajo, una visión común, aprendizaje en equipo y modelos mentales (Sachan et al., 2016).

1.3.4 PSICOLOGÍA DE LA ORGANIZACIÓN POSITIVA

Argyris (1958) definió “organización saludable” como aquella que permite que ocurra un funcionamiento humano óptimo. Diferentes condiciones de trabajo pueden influir positiva y negativamente en la salud de los empleados (Gómez, 2007). Además, Salanova et al. (2012) definieron a las organizaciones saludables y resilientes como aquellas que realizan esfuerzos sistemáticos, planificados y proactivos para asegurar la mejora de los procesos y resultados de sus empleados (HERO).

Hay tres niveles en los que estos esfuerzos están relacionados con los recursos y prácticas organizacionales: 1) nivel de tarea (retroalimentación, autonomía mejorada mediante el rediseño de tareas), 2) nivel social ambiental (por ejemplo, liderazgo), y 3) nivel organizacional (por ejemplo, mejora de la salud a través de estrategias organizativas, conciliación trabajo-familia) (Martín-del-Río et al., 2021). El modelo HERO establece que una organización promueve mayores niveles de bienestar en los empleados cuando invierte en prácticas y recursos organizacionales saludables, lo que a su vez conduce a mejores resultados a nivel organizacional (Gil-Beltrán et al., 2020). En conclusión, la inversión de los empleados en bienestar y salud está asociada con la competitividad y la rentabilidad (Salanova et al., 2012). Un empleado saludable también está comprometido y vive una experiencia de tasa afectivo-emocional y psicológica positiva con respecto a su trabajo (Masood & Khan, 2020).

La Psicología Organizacional Positiva (POP) surge del concepto holístico de salud aplicado al contexto específico del trabajo. Su origen deriva del desempeño óptimo, para amplificar y potenciar el bienestar psicológico, y la calidad de vida laboral y organizacional (Salanova et al., 2016). POP pretende incentivar la promoción de organizaciones positivas que se comprometan con la forma integral, interdisciplinaria y multicausal del desarrollo de la salud. Las organizaciones positivas son aquellas que buscan la excelencia y el éxito financiero a nivel organizacional; y dado que disfrutan de una fuerza laboral física y psicológica que puede mantener un ambiente de trabajo positivo, especialmente durante períodos de turbulencia y cambio, son capaces de volverse aún más fuertes (Salanova et al., 2012).

El modelo HERO, es un modelo heurístico que integra resultados teóricos y empíricos provenientes de diferentes áreas como la gestión de recursos humanos (HRM), el comportamiento organizacional, la psicología organizacional positiva (POP) y el estrés laboral. Es necesario promover el bienestar psicosocial de los empleados y fomentar experiencias grupales positivas, ya que esto permite facilitar las conexiones y procesos que se establecen entre el desempeño y los resultados organizacionales y sus antecedentes. Así, como lo demuestra la literatura, el papel de los gerentes en tener una organización positiva es crucial y tiene una profunda influencia en el desarrollo y éxito de los empleados.

1.3.5 BIENESTAR PSICOLÓGICO

El significado del término “bienestar” apunta directamente a los dos términos. Es la implicación del “estar” y el “bien”, vivir en buen estado. Por lo tanto, las medidas que utilizamos para examinar el bienestar están asociadas con evaluaciones sobre la vida de una persona, a menudo a través de juicios hechos por los propios individuos (Warr, 2012). Esencialmente, el bienestar estable ocurre cuando las personas poseen los recursos psicológicos, sociales y físicos que necesitan para enfrentar un desafío social, físico y psicológico. Sin embargo, cuando las personas tienen más desafíos que recursos, su bienestar disminuye y viceversa. La teoría de Carol Ryff del modelo de bienestar psicológico de seis factores determinó seis componentes que contribuyen al bienestar psicológico, la felicidad y la satisfacción de una persona (Seifert, 2005). El bienestar psicológico se compone de relaciones positivas con los demás, dominio personal, un sentimiento de propósito y significado en la vida y desarrollo personal (Ryff, 1989).

1.3.6 CAPITAL PSICOLÓGICO

El Capital Psicológico (PsyCap) es uno de los principales factores que afectan el bienestar psicológico y el desgaste laboral de las personas. El desarrollo del estado psicológico positivo de un empleado se centra en cuatro capacidades psicológicas distintivas: la autoeficacia, la esperanza, la resiliencia y el optimismo, todas las cuales se denominan Capital Psicológico (Luthans & Youssef, 2007). El capital psicológico está representado por los recursos efectivos positivos que poseen las personas, lo que les permite tener éxito y les ayuda a alcanzar sus metas y a enfrentar los desafíos y dificultades que puedan enfrentar (Luthans & Jensen, 2002). Los estudios demostraron que el capital psicológico estaba relacionado con una disminución sustancial de los

síntomas de estrés, las intenciones de dejar de fumar y los comportamientos de búsqueda de empleo (Luthans y Youssef, 2007). Además, se descubrió que el capital psicológico aumenta el compromiso organizacional, la satisfacción (Lifeng, 2007) y el bienestar en el lugar de trabajo (Avey et al., 2010).

El desarrollo de un comportamiento organizacional psicológico positivo en los empleados es provocado por un estilo de liderazgo que tiene un enfoque centrado en las personas (Walumbwa et al., 2010). Por lo tanto, se recomienda que los gerentes y directores adopten dichos enfoques para desarrollar mejor sus organizaciones.

1.4. LIDERAZGO DEL DIRECTOR DE LA ESCUELA

1.4.1 EVOLUCION DEL LIDERAZGO

La gestión de la escuela como organización está dirigida por el director y, por lo tanto, afecta directamente el liderazgo del director y la intención de mejorar el desempeño de los docentes (Muliati et al., 2022). Según Novitasari y Asbari (2021), el comportamiento de liderazgo puede afectar el desempeño de los docentes en una institución. Aclaran que el objetivo del liderazgo es encontrar una manera en que el líder pueda influir, dirigir, motivar y controlar a sus empleados de tal manera que los aliente a completar las tareas de manera efectiva y eficiente. Por lo tanto, el liderazgo es un proceso en el que una persona influye en otros para que se conviertan en subordinados en el logro de un objetivo común. Más específicamente, el liderazgo tiene una influencia significativa en el desempeño de los docentes, ya que el liderazgo adecuado puede aumentar la motivación laboral de los docentes (Muliati et al., 2022).

El liderazgo es una relación de influencia construida entre líderes y seguidores que a su vez impactan cambios reales en una comunidad que reflejan sus propósitos mutuos. Hay cuatro elementos esenciales que componen el liderazgo: 1) debe haber una relación basada en la influencia, 2) los líderes y seguidores son considerados personas aquí, 3) hay un cambio real previsto por líderes y seguidores, y 4) existe el mutuo propósito entre líderes y seguidores.

Durante las últimas tres décadas, la teoría del liderazgo de rango completo (Bass & Avolio, 1993) ha dominado la literatura sobre el liderazgo en el lugar de trabajo. Esta teoría centrada en el líder entiende a los gerentes de trabajo como participantes importantes que influyen en los trabajadores e impactan los resultados organizacionales

(Avolio et al., 1999). Los diferentes comportamientos que transmiten los supervisores al tratar de influir en sus trabajadores a menudo se clasifican en términos de tres metacategorías o estilos de liderazgo: transformacional, transaccional y pasivo (Derue et al., 2011).

1.4.2 TIPOS DE LIDERAZGO

El modelo de rango completo desarrollado por Bass y Avolio (1993) incluye cuatro estilos de liderazgo: liderazgo transformacional, liderazgo gratificante, liderazgo evasivo y no liderazgo. Un estudio reciente que compara los tipos de liderazgo de los directores de escuelas se centra en tres tipos principales de liderazgo: liderazgo instructivo, distribuido y transformacional (Börü & Bellibaş, 2021). Naqshbandi y Jasimuddin (2018) demostraron que el liderazgo orientado al conocimiento influye en la gestión del conocimiento de los líderes, generalmente definida como la construcción de infraestructura y los procesos subsiguientes relacionados con la innovación. Donate y de Pablo (2015) descubrieron que la cultura organizacional orientada al conocimiento afecta las prácticas de gestión del conocimiento y que el liderazgo refuerza los procesos relacionados con el conocimiento. El liderazgo transformacional apoya el intercambio de conocimientos (Le et al., 2017), construyendo una cultura organizacional que fomenta el conocimiento, el aprendizaje y la innovación (Anselmann & Mulder, 2020).

Los estudios que analizan el liderazgo transformacional señalan que “la esencia de la teoría del liderazgo transformacional es un proceso mediante el cual el líder construye el compromiso de los seguidores con los objetivos organizacionales y desarrolla a los seguidores para que puedan lograr los objetivos organizacionales” (Siangchokyoo et al., 2020, p.3). Por lo tanto, los líderes transformacionales influyen en el desarrollo y la transformación de sus seguidores, lo que a su vez mejora el desempeño de los seguidores y de la organización.

El liderazgo transformacional es un estilo de liderazgo centrado en líderes que establecen nuevas normas, cambian las actitudes de los empleados, crean una nueva visión de la realidad y realizan cambios fundamentales en la cultura de la organización. Los directores son los jefes-líderes de las escuelas y son responsables de transformar la cultura escolar para que la organización que dirigen satisfaga las crecientes demandas de las partes interesadas locales, estatales y federales.

El liderazgo transformacional juega un papel fundamental en el cultivo de climas y comportamientos de intercambio de conocimientos, a través del apoyo de actividades que comparten activamente el conocimiento. Estas actividades sirven como modelos y proveedores de oportunidades para compartir conocimientos (Fullwood et al., 2013). Además, los líderes transformacionales influyen significativamente en la confianza interpersonal y el aprendizaje organizacional (Kim & Park, 2019)). Cuando los líderes transformacionales demuestran un compromiso personal para lograr la visión que propugnan, es probable que aumente la confianza interpersonal de sus empleados porque estos últimos han visto y sentido los lazos entre los empleados y entre los líderes y los empleados (Goodwin et al., 2011).

El estudio actual se centra en el liderazgo transformacional. Nuestro objetivo es explorar su relevancia e impacto en la organización que aprende. La investigación mostró que el liderazgo transformacional es el tercer tipo de liderazgo más popular en la investigación educativa durante las últimas cuatro décadas (Gumus et al., 2018). Los líderes transformacionales motivan a sus seguidores sobre la importancia de alcanzar las metas organizacionales y los inspiran a priorizar el éxito de la organización (Marks & Printy, 2003).

Belan y Niron (2021) afirman que el liderazgo transformacional principal tiene un impacto profundo y cambia las organizaciones escolares. Ocurre cuando el director cumple con sus funciones y utiliza todos los recursos que posee la escuela para lograr los objetivos organizacionales y en consecuencia, beneficiar a todo el personal educativo (Andriani et al., 2018; Balyer, 2012; Li & Liu, 2020). Además, Balyer (2012) señala que el liderazgo transformacional es un estilo de liderazgo que inspira a los subordinados, los involucra y tiene un compromiso compartido para hacer realidad la visión de la organización.

Además de la importancia de ser líderes transformadores, los directores deben brindar un ambiente de aprendizaje productivo tanto para los maestros como para los estudiantes. También son fundamentales en el proceso de generar confianza entre los docentes y deben fomentar la cooperación entre todo su personal. Los investigadores y profesionales han reconocido durante mucho tiempo que el papel del director es crucial para la mejora escolar (Ghasemiyan & Jafari, 2019). Los directores de hoy tienen enormes responsabilidades mientras se esfuerzan por liderar sus escuelas de manera efectiva y superar los muchos desafíos educativos que enfrentan (Brown, 2019).

SECCIÓN 2. OBJETIVOS E HIPÓTESIS DE LA INVESTIGACIÓN

2.1. Contexto de la investigación

El desarrollo profesional del personal docente es la clave para el avance de los sistemas educativos (Ainley & Carstens, 2018). La escuela es el escenario central en el que se desenvuelve el docente. Los procesos de desarrollo profesional de los docentes que tienen lugar dentro de la escuela permiten que los miembros del personal educativo crezcan profesionalmente, al mismo tiempo que contribuyen al avance de su labor educativa. Por lo tanto, es de gran importancia permitir que los docentes aprendan dentro del sistema escolar y reciban una formación adaptada a sus necesidades.

A lo largo de los años, el sistema educativo israelí ha buscado promover la calidad y el nivel de enseñanza en las escuelas implementando TPD (Pomson & Grant, 2004). Así, en 2002-03, el Ministerio de Educación de Israel estableció centros para el desarrollo del personal docente, a saber, PISGAH, cuyo objetivo principal era ejecutar la entrega de programas de desarrollo profesional para docentes (Israeli Ministry of Education, 2007). Cada equipo pedagógico del Centro PISGAH participa en el proceso de estudiar las escuelas como organizaciones de aprendizaje y desarrollo de su capital humano. Además de los cursos y calificaciones de capacitación profesional, los Centros PISGAH brindan informes detallados del estado del TPD que permiten al director de la escuela tomar decisiones. Sin embargo, el Programa de Organización del Aprendizaje (LOP) PISGAH no se implementa de manera completa y uniforme por parte de todos los directores de escuela afiliados a cada centro, y es necesario examinar su impacto en el TPD en función del grado en que se implementa en la escuela. principal.

Además, si bien varios estudios se han centrado en la asociación entre las variables a nivel escolar y la participación de los docentes en actividades de desarrollo profesional en Israel, hasta donde sabemos, no ha habido una investigación multinivel que examinara los factores a nivel de docentes y directores, que pueden servir como predictores del desarrollo profesional del profesorado.

2.2. OBJETIVOS E HIPÓTESIS DE LA INVESTIGACIÓN

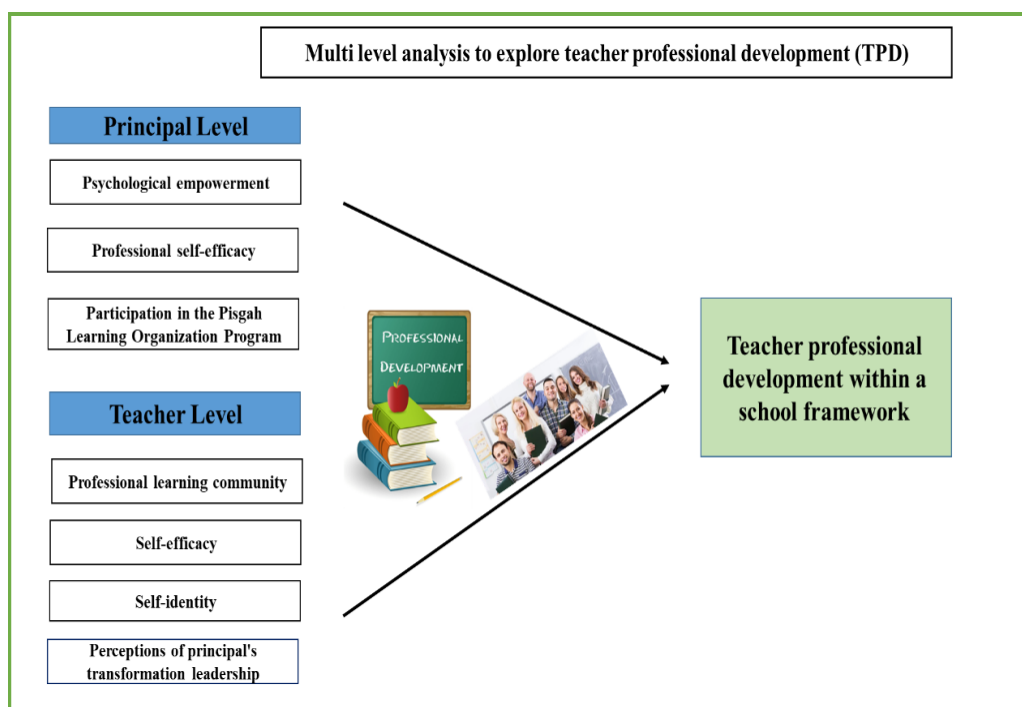
2.2.1 OBJETIVOS

Los objetivos de este estudio son examinar los factores que están asociados con TPD a nivel individual del maestro, así como a un nivel más amplio de la escuela.

Específicamente, el primer objetivo del presente estudio es examinar cómo la autoeficacia de los docentes, la identidad profesional, el nivel de participación en las comunidades de aprendizaje profesional de la escuela y sus percepciones sobre los patrones de liderazgo transformacional del director afectan su desarrollo profesional. Un segundo objetivo del presente estudio es examinar cómo el empoderamiento psicológico y la autoeficacia profesional del director influyen en el TPD de los docentes de la escuela. El tercer objetivo del estudio es examinar cómo el nivel de participación del director en el “Programa de Organización del Aprendizaje” (LOP) del PISGAH impacta en el TPD de los docentes de la escuela.

Figura 1.

Un análisis multinivel del desarrollo profesional docente.



Fuente: elaboración propia

2.2.2 HIPÓTESIS DE LA INVESTIGACIÓN

Factores asociados al TPD examinados a Nivel Docente

Nuestras primeras cuatro hipótesis se refieren a factores que están asociados con TPD y que serán examinados a nivel del maestro.

Hipótesis 1- Se encontrarán correlaciones positivas entre la comunidad de aprendizaje profesional y el desarrollo profesional docente.

Hipótesis 2- Se encontrarán correlaciones positivas entre las Percepciones de los patrones de liderazgo de transformación del director y el desarrollo profesional Docente.

Hipótesis 3. Se encontrarán correlaciones positivas entre la Autoeficacia y el Desarrollo Profesional Docente.

Hipótesis 4. Se encontrarán correlaciones positivas entre Identidad profesional y Desarrollo profesional docente.

Factores asociados con TPD examinados a nivel del director

Nuestro segundo objetivo fue examinar los factores que están asociados con TPD a nivel del director de la escuela. Así, se probarán las siguientes hipótesis:

Hipótesis 5. Se encontrarán correlaciones positivas entre empoderamiento psicológico y desarrollo profesional docente.

Hipótesis 6. Se encontrarán correlaciones positivas entre Autoeficacia Profesional y Desarrollo Profesional Docente.

Participación del director en PISGAH “Programa de Organización de Aprendizaje” (LOP) y TPD

El tercer objetivo es examinar cómo el nivel de participación del director de la escuela en el “Programa de Organización del Aprendizaje” (LOP) PISGAH impacta en el DPT de los docentes de la escuela. Por lo tanto, proponemos la siguiente hipótesis:

Hipótesis 7. Se encontrarán correlaciones positivas entre la implementación del programa de organización de aprendizaje y el desarrollo profesional docente

Hipótesis 8. El desarrollo profesional docente (TPD) será predicho por el empoderamiento psicológico del director, la autoeficacia profesional y la implementación del "Programa de organización de aprendizaje", más allá de las percepciones del maestro sobre los patrones de liderazgo de transformación del director, la comunidad de aprendizaje profesional, la autoeficacia. -eficacia e identidad profesional.

SECCIÓN 3. METODOLOGÍA

3.1. DISEÑO DE LA INVESTIGACIÓN

Hemos realizado un diseño de investigación transversal. En nuestro estudio, el marco conceptual involucra variables a dos niveles: el individual y el escolar. Estos niveles son jerárquicos, en el sentido de que los encuestados están anidados dentro de las escuelas. Un modelo lineal jerárquico (HLM) es particularmente adecuado para estas condiciones analíticas; HLM permite la estimación simultánea de relaciones de variables en múltiples niveles (Raudenbush & Bryk, 2002; Garson, 2013). Toma prestada la fuerza de todos los datos en cada una de las escuelas y hace posible estimar los efectos en cada nivel, lo que nos permite probar el efecto de la escuela más allá del efecto a nivel individual (Raudenbush & Bryk, 2002).

La muestra del estudio incluyó a 36 directores y 412 maestros que fueron seleccionados al azar de una población de 1700 directores y 80 000 maestros que trabajaban en escuelas primarias, estatales y religiosas judías y árabes en Israel bajo la supervisión del Ministerio de Educación durante el año escolar de 2020/2021. El marco conceptual involucró variables a dos niveles: nivel docente y nivel director. Primero, los datos se analizaron por separado para maestros y directores para examinar las asociaciones de cada nivel con TPD, luego de lo cual se consolidaron para realizar un análisis de modelado multinivel (HLM) para evaluar los efectos del nivel del director en el nivel del maestro.

Tabla 1.

Principales características de la muestra de estudio.

Baseline characteristics	Teachers (N=412)		Principals (N=36)	
Age, Mean (SD), range	41.99 (9.14), 22-66		48.58 (5.89), 36-58	
	f	%	F	%
Gender, No.				
Women	355	86.17	27	75.0
Men	57	13.83	9	25.0
Marital Status, No. (%)				
Divorced	23	5.58	5	13.89
Married	346	83.98	29	80.56
Single	41	9.95	1	2.78
Widow	2	0.49	1	2.78
Work framework, No. (%)				
Primary	370	89.81	31	86.11
Special education	42	10.19	5	13.89
Sector				
Arab Teachers	101	24.51	8	22.22
Jewish teachers	311	75.49	28	77.78
Education				
B. Ed.	132	32.04	2	5.56
B.A.	92	22.33	0	-
M.A.	178	43.20	32	88.89
Ph.D.	2	0.49	2	5.56
Senior teacher	6	1.46	0	-
Other	2	0.49	0	-
Advanced study, No. (%)	387	93.93		
Years as a teacher, Mean (SD), range	14.56 (10.13), <1-45		23.44 (6.57), 10-34	
Years as manager, Mean (SD), range	N/A		8.56 (5.89), 1-5	
Years at school, Mean (SD), range	9.79 (8.34), <1-45			

Tabla 2.

Principales características de la muestra de estudio (continuación).

Baseline characteristics	Teachers (N=412)		Principals (N=36)	
	f	%	F	%
Part of a profession or grade team, No. (%)	273	66.26		
Previous role				
Education and training	N/A		31	86.11
High school teacher	N/A		1	2.78
Management	N/A		1	2.78
Teacher	N/A		3	8.33
School size				
Big	N/A		9	25.0
Medium	N/A		22	61.11
Small	N/A		5	19.89
Number of teachers, Mean (SD), range	N/A		36.92 (10.49), 20-56	
Had met with the consolation meeting, No. (%)	N/A		33	91.67

Notes. B. Ed.: Bachelor of Education; B.A.: Bachelor of Arts; M.A.: Master of Art; Ph.D.: Doctor of Philosophy; N/A: Not Applicable.

3.3. IDENTIFICACIÓN Y OPERACIONALIZACIÓN DE VARIABLES

Este estudio tiene varias variables independientes. En primer lugar, se examinarán los datos sociodemográficos (es decir, edad, sexo, estado civil, educación) y las características del trabajo (es decir, marco y sector de trabajo, antigüedad y tamaño de la escuela). Además, se examinarán cuatro variables independientes: autoeficacia (Shoulders & Krei, 2016), identidad profesional (Fisherman & Weiss, 2008), comunidad de aprendizaje profesional (Brown, 2019) y percepciones de los patrones de liderazgo transformacional del director. el "nivel del profesor". Además, tres variables independientes: empoderamiento psicológico (Yang & Liu 2019). La autoeficacia profesional (Brama, 2004) y el nivel de participación en el "Programa de organización de aprendizaje PISGAH" - LOP se examinarán a nivel de "Director". Este estudio tiene una variable dependiente: "Desarrollo profesional docente" -TPD (Creemers et al., 2012)

3.3.1. TÉCNICAS E INSTRUMENTOS

Técnica

La técnica utilizada fue la encuesta en el marco del protocolo de evaluación de coherencia interna (ICAP) (Elmore et al., 2014) para medir y analizar los factores que

promueven el desarrollo profesional entre los docentes. Específicamente, se adoptaron ciertos ítems del protocolo de evaluación para medir el TPD, la autoeficacia de los docentes, la comunidad de aprendizaje profesional y las percepciones de los docentes sobre los patrones de liderazgo transformacional del director (De Vaus & de Vaus, 2013).

Instrumentos

Cuestionarios de profesores

Los siguientes cuestionarios fueron llenados por los docentes:

Características sociodemográficas y laborales: incluyó las siguientes preguntas y categorías de respuesta: edad (años), género (mujeres, hombres), estado civil (divorciado, casado, soltero, viudo), educación (el certificado más alto obtenido: B.Ed. , B.A., M.A., Ph.D., Profesor titular, otro), marco de trabajo (primaria, educación especial), sector (judío, árabe), tipo de escuela (primaria estatal, primaria religiosa), antigüedad como docente (años) , años en la escuela (número de años como docente en la escuela actual), parte de un equipo profesional o grupo de edad (sí/no).

El desarrollo profesional docente, la variable dependiente, se evaluó mediante 6 ítems. Las respuestas para cada ítem van de 1 (totalmente en desacuerdo) a 5 (totalmente de acuerdo) y 6 (irrelevante). Se utilizó la puntuación media de los 6 ítems para describir el nivel del TPD (Elmore et al., 2014; OECD, 2014). La confiabilidad del instrumento en este estudio fue alfa de Cronbach = .89.

La comunidad de aprendizaje profesional se evaluó mediante 14 ítems. Las respuestas para cada ítem van desde 1 (rara vez o nunca/Nada de acuerdo) a 6 (Más de una vez a la semana/Totalmente de acuerdo). La puntuación media de los 14 ítems se utilizó para describir el nivel de comunidad de aprendizaje profesional del docente (Elmore et al., 2014; OECD, 2014). La confiabilidad del instrumento en este estudio fue alfa de Cronbach = .92.

La autoeficacia se evaluó mediante 6 ítems. Las respuestas para cada ítem van de 1 (nada seguro) a 5 (totalmente seguro) o de 1 (nada de acuerdo) a 6 (totalmente de acuerdo). Se utilizó la puntuación media de los 6 ítems para describir el nivel de autoeficacia del profesor. (Elmore et al., 2014; OECD, 2014). La confiabilidad del instrumento en este estudio fue alfa de Cronbach = .87.

Identidad profesional Se utilizó un cuestionario de identidad profesional (Fisherman & Weiss, 2008). Este cuestionario examina la confianza de los docentes en su elección profesional, su sentido de autorrealización como docentes y la medida en que ven su profesión como una misión y un desafío. El cuestionario original incluye 12 ítems. En el presente estudio, solo se seleccionaron 8 ítems. Se preguntó a los maestros qué tan de acuerdo estaban con los ítems en una escala de cinco puntos (desde 1: desacuerdo absoluto hasta 5: acuerdo total). Alfa de Cronbach = .87

Las percepciones de los patrones de liderazgo de transformación del director se evaluaron mediante 16 ítems. Las respuestas para cada ítem van de 1 (totalmente en desacuerdo) a 5 (totalmente de acuerdo). La puntuación media de los 16 ítems se utilizó para describir el nivel de percepción del profesor sobre los patrones de liderazgo de transformación del director (Elmore et al., 2014; OECD, 2014). La confiabilidad del instrumento en este estudio fue alfa de Cronbach = .96.

Cuestionarios de directores

Los siguientes cuestionarios fueron cumplimentados por los directores de las escuelas:

Características sociodemográficas y laborales: incluyó las siguientes preguntas y categorías de respuesta: edad (años), género (mujeres, hombres), estado civil (divorciado, casado, soltero, viudo), educación (el certificado más alto obtenido: B.Ed. , B.A., M.A., Ph.D., Profesor titular, otro), marco de trabajo (primaria, educación especial), sector (judío, árabe), tipo de escuela (primaria estatal, primaria religiosa), antigüedad como gerente (años) , función anterior (educación y formación, profesor de secundaria, gestión, profesor), tamaño de la escuela (grande, mediana, pequeña), número de profesores (el número total de profesores en la escuela del director), se reunió con el equipo de consolación de PISGAH (sí/no), y participación en el “Programa Organización de Aprendizaje PISGAH” (sí/no).

El empoderamiento psicológico se evaluó mediante 10 ítems. Las respuestas para cada ítem van de 1 (muy en desacuerdo) a 7 (muy de acuerdo). La puntuación media de los 10 ítems se utilizó para describir el nivel de empoderamiento psicológico del director (Spreitzer, 1995). La confiabilidad del instrumento en este estudio fue alfa de Cronbach = .88

La autoeficacia profesional se evaluó mediante 25 ítems. Las respuestas para cada ítem van desde 1 (nada capaz) a 7 (seguramente capaz). Se utilizó la puntuación media

de los 25 ítems para describir el nivel de autoeficacia profesional del director (Brama, 2004). La confiabilidad del instrumento en este estudio fue alfa de Cronbach = .98.

Implementación del “Programa de Organización de Aprendizaje PISGAH”. Para el presente estudio, se desarrollaron 4 preguntas con el fin de evaluar el nivel de uso e *implementación de los directores del programa de organización de aprendizaje Pisgah en su escuela*. Las respuestas para cada ítem van desde 1 (No en absoluto) a 4 (Mucho). El puntaje promedio de los 4 ítems se utilizó para describir el nivel de implementación del director del "Programa de Organización de Aprendizaje" (Ministerio de Educación de Israel, 2019). La confiabilidad del instrumento en este estudio fue el alfa de Cronbach = .74.

3.4 ANÁLISIS DE DATOS

Los datos fueron analizados por separado para los docentes y los directores que participaron en este estudio. Se analizó la normalidad de todas las variables. La asimetría y la curtosis mostraron que los datos tienen una distribución aproximadamente normal. Por lo tanto, los datos se analizaron mediante pruebas paramétricas. Las características descriptivas se produjeron utilizando medias, desviaciones estándar y rangos para las variables continuas y frecuencias para las variables discretas.

Las asociaciones entre las características demográficas y la variable dependiente se evaluaron mediante pruebas t para muestras independientes y ANOVA, correlaciones de Pearson. Las correlaciones entre las variables de estudio se evaluaron mediante pruebas de Pearson. Se utilizaron regresiones lineales jerárquicas para evaluar las variables más importantes (percepciones de los directores, patrones de liderazgo de transformación, comunidad de aprendizaje profesional, autoeficacia e identidad profesional) para predecir el TPD.

En cada regresión, el primer bloque contenía las variables demográficas que mostraban una asociación significativa con TPD, y el segundo bloque contenía las variables demográficas y centrales. Se realizó un modelo multinivel (HLM) que evaluó los efectos del nivel de los directores en el nivel de los maestros. HLM se puede usar cuando los individuos están anidados dentro de grupos, ya que este tipo de modelado permite explicar la variación dentro del grupo (Raudenbush & Bryk, 2002). En este modelo, la variable dependiente fue el TPD completado por los docentes, y las variables independientes fueron las variables de docentes y directores combinadas. El nivel de significación se consideró por debajo de .05. El análisis de datos se hizo con SPSS v. 25.

SECCIÓN 4. RESULTADOS DE LA INVESTIGACIÓN

4. Introducción

La sección de resultados se dividirá en tres capítulos. En el primer capítulo se presentarán los resultados del análisis de las variables a nivel docente, en el segundo capítulo se presentará el análisis de las variables a nivel de director y en el tercer capítulo se presentarán los resultados del análisis HLM.

ESTUDIO 1. RESULTADOS DE LA INVESTIGACIÓN EMPÍRICA: NIVEL DOCENTE

Resultados descriptivos

La Tabla 3 presenta las medias, desviaciones estándar y rangos de las variables de estudio de los docentes. La asimetría (-.82) y la curtosis (-.14) para la variable dependiente fueron aceptables.

Tabla 3.

Medias, desviaciones estándar y rangos para las variables del estudio del maestro

Variables	N	M	SD	Range
1. The Perceptions of principal's transformation leadership patterns scale.	395	4.42	.56	2.69-5.00
2. The Professional learning community scale.	411	3.85	.77	1.79-5.00
3. Self-Efficacy scale.	411	4.18	.66	2.00-5.00
4. Professional Identity scale.	405	4.41	.58	2.75-5.00
5. Teacher professional development (TPD) scale.	402	4.13	.82	1.67-5.00

Aunque los puntajes totales de todas las escalas estuvieron en el rango más alto posible, los puntajes promedio de las percepciones de los patrones de liderazgo de transformación del director ($M = 4.42$, $SD = 0.56$) y la identidad profesional ($M = 4.41$, $SD = 0.82$) fueron un poco más altos. en comparación con la Autoeficacia ($M = 4,18$, $SD = 0,66$) y la Comunidad de aprendizaje profesional ($M = 3,85$, $SD = 0,77$). Las desviaciones estándar indican que la tendencia de respuesta es homogénea. La puntuación media de la variable dependiente TPD fue de 4,13 ($DE = 0,82$), lo que representa un desarrollo profesional relativamente alto según la calificación de los docentes.

Resultados comparativos (estadística inferencial)

Las asociaciones entre las características demográficas y la variable dependiente se evaluaron mediante pruebas T para muestras independientes, ANOVA y correlaciones de Pearson. No se encontraron diferencias en TPD entre mujeres y hombres, entre situaciones de pareja, o entre tipos de marcos de trabajo. Se encontró una diferencia significativa entre la educación árabe y la educación judía, de modo que entre la educación judía ($M = 4.17$, $SD = .80$) el TPD es más alto que el árabe ($M = 3.98$, $SD = .87$). Además, se encontraron diferencias significativas entre los niveles de educación. El análisis *post-hoc* con la corrección de Bonferroni mostró que existe una diferencia significativa entre los docentes con una licenciatura en educación ($M = 4,26$, $SD = 0,74$) y los docentes con una licenciatura en artes ($M = 3.85$, $SD = .85$), por lo que el nivel de TPD es mayor entre los docentes con una licenciatura en educación. No se encontraron diferencias significativas entre los otros grupos de educación.

Las correlaciones de Pearson mostraron que no hubo asociación significativa entre TPD y edad, $r = -.04$, $p = .381$, antigüedad general, $r = -.06$, $p = .248$, o antigüedad en la escuela actual, $r = -.09$, $p = 0,085$.

Las hipótesis de investigación predijeron que se encontrarán correlaciones positivas entre la comunidad de aprendizaje profesional, las percepciones de los patrones de liderazgo de transformación del director, la autoeficacia, la identidad profesional y el desarrollo profesional docente (TPD). Las correlaciones entre las variables de estudio se evaluaron mediante pruebas de Pearson. Los resultados mostraron correlaciones positivas entre todas las variables del estudio (ver Tabla 4).

Tabla 4.

Correlación de Pearson entre las variables de estudio.

Variable	1	2	3	4	5
1. Professional learning community	-				
2. Perceptions of principal's transformation leadership patterns	.63**	-			
3. Self-efficacy	.62**	.60**	-		
4. Professional identity	.41**	.39**	.49**	-	
5. Teacher professional development (TPD)	.61**	.65**	.61**	.41**	-

* $p < .05$, ** $p < .01$

Para evaluar las variables más importantes para predecir el TPD se calculó una regresión lineal jerárquica. El primer bloque contenía las variables demográficas que mostraron asociación significativa con TPD, y el segundo bloque contenía las variables demográficas y centrales.

Los resultados mostraron que el primer paso fue significativo y explica el 4.7 % de la varianza de TPD. Solo el sector tiene una contribución única significativa al modelo de predicción, por lo que entre los judíos existe un mayor grado de TDP (Beta = .12, $p < .05$). El segundo paso también resulta significativo, agregando un 45.5% a la varianza explicada. El examen de cada una de las variables predictivas muestra que la identidad profesional no tiene una contribución única significativa al modelo (Beta = .08), y que todas las demás variables independientes tienen una contribución única significativa: percepciones de los patrones de liderazgo de transformación del director (Beta = .28, $p < .01$), comunidad de aprendizaje profesional (Beta = .24, $p < .01$) y autoeficacia (Beta = .23, $p < .01$).

ESTUDIO 2. RESULTADOS DE LA INVESTIGACIÓN EMPÍRICA: NIVEL PRINCIPAL (DIRECCIÓN ESCOLAR)

Resultados descriptivos

La Tabla 5 presenta las medias, las desviaciones estándar y los rangos de las principales variables independientes del estudio.

Tabla 5.

Medias, desviaciones estándar y rangos de las principales variables de estudio

Variables	N	M	SD	Range
1. Psychological empowerment.	36	6.60	.39	5.82-7.00
2. Professional Self-Efficacy.	36	5.81	.81	3.68-7.00
3. Implementation of the PISGAH “Learning Organization Program”	36	3.50	.48	2.40-4.00

Aunque las puntuaciones totales de las escalas estuvieron en el rango más alto posible (1-7), la puntuación media del empoderamiento psicológico (M = 6,59, SD = 0,39) fue un poco más alta en comparación con la puntuación media de la autoeficacia del profesional. (M = 5,81, DE = 0,80). Las desviaciones estándar indican que la

tendencia de respuesta es homogénea, sin embargo, la homogeneidad del empoderamiento psicológico parece bastante alta. El puntaje promedio de la variable independiente "Implementación del Programa de Organización de Aprendizaje" (PISGAH) fue de 3.50 (SD = .48), de un rango posible de 1-4, lo que representa una implementación relativamente alta del programa de organización de aprendizaje.

Resultados comparativos (estadística inferencial)

Las asociaciones entre las características demográficas y la variable dependiente se evaluaron mediante pruebas T de muestras independientes, ANOVA y correlaciones de Pearson. No se encontraron diferencias en el promedio de TPD entre directores femeninos y masculinos, entre situaciones conyugales, entre tipos de marcos de trabajo o sector.

Las correlaciones de Pearson mostraron que no hubo asociación significativa entre TPD promedio y antigüedad, $r(35) = .10$, $p = .576$, o Número de maestros en la escuela, $r(35) = -.08$, $p = .644$. La edad se correlacionó positivamente con el TPD promedio $r(35) = .38$, $p = .024$.

Las hipótesis 5-7 de esta investigación afirmaron que el empoderamiento psicológico, la autoeficacia profesional y la implementación del "Programa de Organización del Aprendizaje" PISGAH se asociarán positivamente con el TPD.

Las correlaciones de Pearson entre las variables de estudio indicaron una correlación positiva moderada entre el empoderamiento psicológico y la autoeficacia profesional ($r = .39$, $p = .018$). No se encontró que la implementación del programa Organización de aprendizaje PISGAH se asocie significativamente con el empoderamiento psicológico ($r = .23$, $p = .185$) o la autoeficacia profesional ($r = .17$, $p = .330$).

En contra de las hipótesis de investigación, las asociaciones del TPD medio con el empoderamiento psicológico ($r = .06$, $p = .374$), la autoeficacia profesional ($r = .21$, $p = .117$), y la implementación del PISGAH "Programa de Organización de Aprendizaje" ($r = -.15$, $p = .197$) no fueron significativos.

ESTUDIO 3. RESULTADOS DEL MODELO LINEAL JERARQUICAL

Introducción

La octava hipótesis de esta investigación fue que el desarrollo profesional docente (TPD) será predicho por el empoderamiento psicológico del director, la autoeficacia profesional y la implementación del “Programa de Organización de Aprendizaje” PISGAH, más allá de las percepciones del maestro sobre el liderazgo transformador del director. patrones, comunidad de aprendizaje profesional, autoeficacia e identidad profesional.

Para evaluar los efectos del nivel de principios en el nivel de los profesores, se llevó a cabo el Modelo Lineal Jerárquico (HLM). El modelo lineal jerárquico (HLM) es una forma de regresión que se utiliza para predecir las variables de resultado cuando las variables predictoras se encuentran en diferentes niveles jerárquicos porque esta forma está diseñada para tener en cuenta la estructura jerárquica de los datos. En el estudio actual, los profesores comparten la varianza según sus principios comunes. En consecuencia, en este modelo, la variable dependiente fue el TPD completado por los docentes, y las variables independientes fueron las variables combinadas de docentes y directores.

Resultados del análisis HLM

Como se puede ver en la Tabla 6 y la Figura 2, los resultados mostraron que al examinar las variables a nivel maestros, las percepciones más altas de los patrones de liderazgo de transformación del director ($Beta = .44, p = .02$) y la autoeficacia más alta ($Beta = .33, p = 0,02$), se correlacionan positivamente con TPD. El examen de las variables de los principios mostró que una mayor autoeficacia profesional se correlaciona positivamente con el TPD de los docentes ($Beta = .13, p = .04$). Las variables en el modelo explicaron alrededor del 76% de la varianza total en TPD.

Tabla 6.

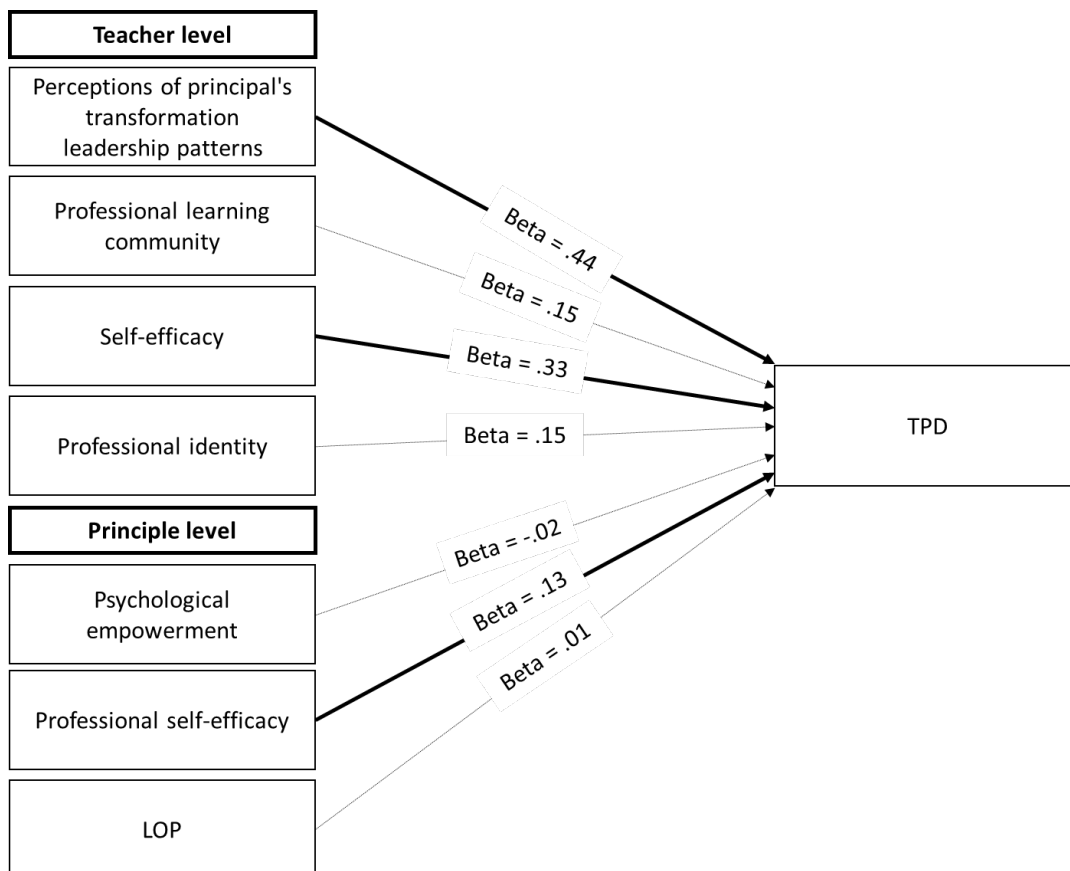
Coefficientes estandarizados y no estandarizados para predecir TPD usando variables de maestros y directores

	<i>B</i>	<i>S.E.</i>	<i>Beta</i>	<i>p</i>
Teacher level				
Perceptions of principal's transformation leadership patterns	.54	.21	.44	.02
Professional learning community	.15	.16	.15	.36
Self-efficacy	.34	.14	.33	.02
Professional identity	.22	.16	.15	.20
Principal Level				
Psychological empowerment	-.02	.10	-.02	.88
Professional self-efficacy	.04	.05	.13	.04
LOP	.01	.08	.01	.97

LOP: Learning Organization Program

Figura 2.

Resumen de las asociaciones entre las variables a nivel de maestro y director con TPD.



SECTION 5. DISCUSIÓN, CONCLUSIÓN, LIMITACIÓN Y FUTURAS LÍNEAS DE INVESTIGACIÓN

5.1. DISCUSIÓN DE LOS RESULTADOS

5.1.1. LOS RESULTADOS DEL ANÁLISIS DEL NIVEL DOCENTE (ESTUDIO 1)

El objetivo de este análisis fue examinar qué factores a nivel docente predicen TPD. Específicamente, nuestro objetivo fue comprender cómo la autoeficacia de los docentes, la identidad profesional, el nivel de participación en las comunidades de aprendizaje profesional de la escuela y sus percepciones de los patrones de liderazgo transformacional del director afectaron su desarrollo profesional.

Nuestra primera hipótesis postulaba que la comunidad de aprendizaje profesional se correlacionaría positivamente con TPD. Como se planteó como hipótesis, nuestro análisis mostró una correlación positiva significativa entre las comunidades de aprendizaje profesional y TPD. Además, el análisis de regresión reveló que la comunidad de aprendizaje profesional fue un predictor significativo de TPD. Estos hallazgos son consistentes con otros estudios que describen un patrón similar de asociaciones entre TPD y comunidades de aprendizaje profesional (Brown, 2019; Fu & Clarke, 2017). En la última década, la atención de los educadores interesados en el desarrollo profesional de los docentes ha sido atraída por la comunidad de aprendizaje profesional. Se describen como grupos de docentes que se reúnen para participar en ciclos sistemáticos, regulares y sostenidos de aprendizaje basados en la indagación con la intención de desarrollar su capacidad individual y colectiva para mejorar los resultados de los estudiantes (Hairon et al. 2012; Sjoer & Meirink, 2016). Los procesos son una representación de una red de actividades en las que los docentes brindan y reciben apoyo de colegas, comparten y colaboran en las mejores prácticas de instrucción y toman la iniciativa para mejorar su práctica (Fu & Clarke, 2017; Sjoer & Meirink, 2016). Este aprendizaje y apoyo colegiados también ocurren en ambas direcciones y entre generaciones (Evertson, 2020).

Por lo tanto, este estudio brinda apoyo adicional a la noción de que las comunidades de aprendizaje profesional pueden conducir a la creación de espacios para el desarrollo profesional continuo y sostenido (Vangrieken et al., 2017). A través de este

trabajo colaborativo, los docentes pueden desarrollar expectativas compartidas para la práctica (Elmore, 2004; Elmore, Forman, Stosich, & Bocala, 2014; Forman, Stosich & Bocala, 2017), y compartir experiencias e innovaciones, para resolver problemas juntos y desarrollar sus competencias y profesionalismo (Juliasandi & Rohman, 2018).

La segunda hipótesis del estudio fue que se encontrarán correlaciones positivas entre las percepciones de los patrones de liderazgo de transformación del director y el TPD. Como se planteó como hipótesis, nuestros resultados mostraron que la percepción del liderazgo transformacional del director fue un predictor significativo de TPD. El liderazgo profesional de los gerentes en las escuelas y la profesionalización de los docentes están íntimamente relacionados, de modo que el liderazgo efectivo y profesional conduce al desarrollo profesional de los docentes (Hairon y Dimmock, 2012). Los líderes transformacionales animan fuertemente a los maestros a mejorar continuamente la calidad de su enseñanza e instrucción (Northouse, 2007). El liderazgo transformacional de los directores de escuela también ha demostrado estar asociado con la mejora de la autoeficacia de los docentes (Francisco, 2019), su motivación, compromiso (Hutchinson, 2020; Balyer 2012; Kim & Park 2019 y su desarrollo profesional cooperativo (Kang, 2021; Li & Liu 2020). De acuerdo con otros estudios que vinculan las percepciones de los patrones de liderazgo de transformación del director con el desarrollo profesional de los docentes (Kang, 2021), nuestro estudio también respalda la importancia de este factor en la predicción de TPD.

Nuestra tercera hipótesis supuso una correlación positiva entre la autoeficacia de los profesores y el TPD. Nuestra hipótesis fue apoyada, revelando que la autoeficacia de los profesores es un predictor significativo de TPD. Asimismo, este hallazgo es consistente con otros estudios que enfatizan el papel de la autoeficacia en el éxito y profesionalismo de los docentes (Barni, 2019; Hajovsky et al., 2020; Kraut et al., 2016). La autoeficacia está directamente relacionada con los conocimientos y habilidades del docente necesarios para una enseñanza eficaz. Además, para hacer el mejor uso de su formación de desarrollo profesional, se necesita un fuerte sentido de autoeficacia y apoyo organizacional para los docentes con varios años en la profesión (Kraut et al., 2016). Las creencias de autoeficacia pueden influir en la medida en que un programa de capacitación de docentes es finalmente efectivo en términos de adquisición de conocimientos y habilidades y también hay evidencia de que las personas con niveles más altos de

autoeficacia se desempeñan mejor en la capacitación (Hajovsky et al., 2020; Kraut et al., 2016).

Nuestra cuarta y última hipótesis en el análisis a nivel docente fue que la identidad profesional de los docentes se asociará positivamente con TPD, porque la experiencia está relacionada con el desarrollo de las bases de conocimiento de los docentes (Eales & Bradley, 2018), y se pone énfasis sobre la importancia de la identidad en el desarrollo de los docentes (Avidov-Ungar & Forkosh-Baruch, 2018; Meihami 2021). Nuestros resultados mostraron que, aunque la identidad profesional de los docentes tenía una correlación positiva con TPD, el análisis de regresión reveló que la identidad profesional no tenía una contribución única significativa al modelo de predicción de TPD. Una posible explicación está implícita en la correlación comparativamente fuerte entre la identidad profesional y la autoeficacia; la autoeficacia a menudo se describe en la literatura como uno de los cuatro principales contribuyentes a la identidad profesional de los docentes (Canrinus et al., 2012), de modo que la correlación positiva encontrada entre la identidad profesional y el TPD puede, de hecho, reflejar la contribución de la variable latente de la autoeficacia.

Otro hallazgo del presente estudio se relaciona con la fuerte asociación positiva entre el liderazgo transformacional del director y las comunidades de aprendizaje profesional, lo que corrobora la noción de que el estilo de liderazgo transformacional se asocia positivamente con el desarrollo profesional cooperativo de los docentes (Bellibaş et al., 2021), y es uno de los principales requisitos en la creación de un entorno escolar para la profesionalización docente (Louis et al., 2010). Es así, que los predictores de las comunidades profesionales de aprendizaje, la autoeficacia de los docentes y sus percepciones sobre el estilo de liderazgo de los directores explicaron casi el 50% de la varianza de TPD, lo que sirve como refuerzo adicional al modelo de Coherencia Interna y al protocolo de evaluación (Elmore et al., 2014).

Además, los hallazgos del presente estudio mostraron que los maestros que cuentan con una Licenciatura en Educación (B.Ed.) tenían un TPD más alto en comparación con los maestros con una Licenciatura en artes. En Israel, B.Ed. es el título que se otorga en facultades de educación, mientras que un B.A. es el título generalmente que se otorga en todas las universidades. Esta varianza puede indicar las diferencias existentes entre la formación del profesorado en colegios frente a la universidad. Quizás las universidades estén más orientadas hacia la educación y, por lo tanto, proporcionen

una mejor base para el desarrollo profesional continuo de los docentes. Además, los profesores con un B.A. pueden ser maestros suplentes temporales que, debido a su estatus, no participan plenamente en los programas de formación docente profesional, lo que también puede explicar su bajo TPD en comparación con sus contrapartes con un B.Ed. Sorprendentemente, nuestros resultados también revelaron que los maestros de educación judía tenían un TPD más alto en comparación con los maestros de educación árabe. Tales diferencias pueden ocurrir debido a diferencias culturales y económicas entre estos dos sectores (Resh & Blass, 2019).

5.1.2. LOS RESULTADOS DEL ANÁLISIS DE NIVEL PRINCIPAL (DIRECCIÓN ESCOLAR) (ESTUDIO 2)

El objetivo de este análisis fue explorar qué factores a nivel del director de la escuela predicen TPD. Específicamente, buscamos examinar las variables de los directores de empoderamiento psicológico, autoeficacia profesional y nivel de participación en el “Programa de Organización del Aprendizaje” (LOP) PISGAH y su impacto en el desarrollo profesional de los docentes. En consecuencia, postulamos que el empoderamiento psicológico de los directores, la autoeficacia profesional y el nivel de participación en el programa de organización de aprendizaje PISGAH serán predictores significativos del TPD de los docentes en sus escuelas correspondientes.

Investigaciones anteriores sugieren que el empoderamiento psicológico de los directores de escuela conduce en última instancia a mejorar el empoderamiento psicológico de los docentes y su desempeño laboral (Mufti et al., 2020; Muliati et al., 2022). La responsabilidad de involucrar a los docentes en programas de desarrollo profesional para el desarrollo de toda la escuela recae en los administradores escolares (Karacabey, 2020). Los hallazgos refuerzan la noción de que los cambios en las escuelas exitosas y su mejora requieren un enfoque en el desarrollo profesional de los maestros, algo que los directores entienden bien (Hart & Bredeson, 1996). En consecuencia, planteamos la hipótesis de que el empoderamiento psicológico de los directores se asociará con un mayor TPD entre sus maestros de escuela. Sin embargo, contrariamente a nuestra hipótesis, el presente estudio no encontró evidencia de tal asociación. Con respecto a la autoeficacia profesional de los directores, asumimos que serviría como un predictor significativo de TPD ya que se relaciona con la capacidad del director de la escuela para producir los resultados deseados en su respectiva escuela (Tschannen-Moran & Gareis, 2004). Sin embargo, nuestros resultados mostraron que la asociación entre este

predictor y TPD no fue significativa. Cabe señalar, sin embargo, que, aunque no alcanzó significación, la asociación entre la autoeficacia de los directores y el TPD fue en la dirección esperada.

Nuestra hipótesis final en el análisis de nivel principal se refería a una asociación positiva entre su nivel de participación y la implementación del Programa de Organización de Aprendizaje (LOP) de PISGAH y TPD, porque la organización de aprendizaje está asociada con el apoyo de oportunidades continuas de aprendizaje y colaboración entre los miembros del personal (Kools y Stoll, 2016). Sin embargo, en el presente estudio LOP no mostró una correlación significativa con TPD. Puede ser que la pequeña muestra representara a directores que planeaban hacer un cambio en la escuela y aumentar el TPD en lugar de directores que han estado implementando el programa durante algún tiempo.

Además, la puntuación media de LOP sugiere un alto nivel general de implementación entre los directores. De hecho, solo 3 directores (menos del 10%) informaron que no se reunieron con el equipo de consulta de PISGAH. Curiosamente, se encontraron asociaciones positivas no significativas entre LOP y la autoeficacia profesional y el empoderamiento psicológico, lo que puede sugerir que los gerentes con alta autoeficacia y empoderamiento psicológico son más activos en la implementación de LOP. Esta noción está en línea con otros estudios que enfatizan el papel de la autoeficacia de los directores en el cultivo de organizaciones de aprendizaje (Hesbol, 2019; Lee, 2014). Es probable que el bajo número de participantes en este nivel (treinta y seis directores) haya afectado nuestra capacidad de encontrar significado. Los estudios futuros pueden examinar estos factores en una muestra más grande de directores.

Además, los resultados mostraron una correlación positiva entre el TPD promedio y la edad del director. Estudios previos han relacionado la edad de los gerentes con sus prácticas de liderazgo transformacional (Herman et al., 2017). Dado que los patrones de liderazgo transformacional del director percibidos por los maestros estaban fuertemente asociados con el TPD, esto puede explicar la asociación positiva entre la edad y el TPD en este estudio.

5.1.3. LOS RESULTADOS DEL ANÁLISIS HLM

Dado que las prácticas de liderazgo están asociadas con la creación de un entorno de aprendizaje y un desarrollo profesional significativo (Elmore et al., 2014), postulamos

que las variables medidas a nivel del director contribuirán al TPD más allá de la contribución de las variables a nivel de los docentes. En consecuencia, nuestra octava y última hipótesis argumentó que el TPD sería predicho por el empoderamiento psicológico del director, la autoeficacia profesional y el nivel de implementación del PISGAH LOP, más allá de las percepciones del maestro sobre los patrones de liderazgo de transformación del director, su comunidad de aprendizaje profesional, autoeficacia e identidad profesional.

El modelo de regresión multinivel combinado de maestros y directores reveló que las percepciones de los maestros sobre el estilo de transformación del director fueron los predictores más fuertes de TPD. Aunque examinada a nivel docente, esta variable representa otra característica importante del director de escuela. De hecho, en su modelo de teoría de la Coherencia Interna, Elmore et al. (2014) se enfocan mucho en las prácticas y comportamientos de liderazgo para crear un entorno de aprendizaje, participación activa en la enseñanza y el aprendizaje y brindar un desarrollo profesional significativo. Además, el análisis HLM reveló que tanto la autoeficacia de los docentes como la de los directores son variables importantes para predecir el TPD. Como se señaló anteriormente, la autoeficacia tiene mucha influencia sobre el comportamiento, ya que se refiere a los esfuerzos que las personas invierten para alcanzar sus metas y superar los desafíos (Bandura, 1997). Como tal, el presente estudio se suma a la literatura de investigación sobre la autoeficacia al enfatizar el gran impacto de la autoeficacia tanto en el docente individual como en el director de la escuela, en el desarrollo profesional de los docentes.

Finalmente, contrariamente a los resultados del análisis de regresión de un solo nivel, el HLM mostró que las comunidades de aprendizaje profesional no emergen como un predictor independiente de TPD. Podría ser que esta variable tenga una varianza común con los factores escolares en los que está anidada, lo que puede explicar su menor impacto en TPD en el análisis HLM. En general, los resultados del análisis de regresión multinivel dan fe de la importancia del liderazgo del director en la predicción de TPD y refuerzan el papel clave del liderazgo del director en el cultivo de una organización de aprendizaje y el desarrollo de la profesionalidad de los maestros de escuela.

5.2. CONCLUSIÓN

El aprendizaje y la enseñanza ya no son lo que eran ni para los estudiantes ni para el profesorado. Los cambios demográficos, tecnológicos, económicos y políticos, así

como las pandemias y tendencias mundiales, crearon nuevos desafíos en la educación. El objetivo principal de este estudio fue analizar el alcance actual del desarrollo profesional de los docentes y sugerir los roles de los directores y docentes en el ecosistema de mejora del sistema educativo en Israel.

Los hallazgos del presente estudio enfatizan la importancia de varios factores a nivel docente y escolar. En este sentido, Senge (1990) subrayaba la importancia del aprendizaje tanto individual como organizativo para el crecimiento de una organización. En consecuencia, dicho aprendizaje requiere un entorno que fomente el pensamiento independiente, las nuevas ideas y el aprendizaje continuo. Una organización que aprende puede ser más flexible, adaptable y productiva, lo que le permite rendir en un mundo competitivo como es el actual y, sobre todo, liderar procesos de cambio en su interior.

La variable que resultó ser el predictor más significativo de TPD fue la percepción de los maestros sobre los patrones de liderazgo transformacionales del director. Sobre todo, los hallazgos del presente estudio dan fe de la importancia de los patrones de liderazgo del director de la escuela para el desarrollo profesional de los docentes, junto con la contribución de la identidad profesional, la autoeficacia y las oportunidades de la comunidad de aprendizaje profesional de los docentes. Por lo tanto, los hallazgos del estudio enfatizan la importancia de mejorar las habilidades de liderazgo de los directores de escuela para aumentar efectivamente la calidad profesional de su personal docente y de toda la escuela. Estos hallazgos dan fe de la practicidad y la importancia de los centros de aprendizaje PISGAH y el programa LOP y exigen un examen más detenido de su implementación y usabilidad en todo el sistema educativo israelí. Para finalizar, notamos que la importante misión de mejorar el sistema educativo, el marco escolar y el desarrollo profesional de los docentes es fundamental para el desarrollo y los logros de los estudiantes. Por lo tanto, se recomienda que las autoridades y los tomadores de decisiones proporcionen recursos para lograr estos objetivos.

5.3. LIMITACIONES

Esta investigación tiene varias limitaciones que creemos importantes discutir. En primer lugar, todas las medidas de este estudio fueron autoinformadas. Aunque el autoinforme es apropiado para capturar las variables medidas en este estudio, están sujetos a sesgos de métodos comunes (Podsakoff et al., 2003). Además, el diseño transversal del presente estudio no permite inferir la dirección de las relaciones encontradas. Por lo tanto, podría ser que el TPD prediga la autoeficacia de los docentes y

sus percepciones sobre los patrones de liderazgo del director, o que las asociaciones entre estas variables sean de naturaleza recíproca. Esto sugiere que un diseño de estudio longitudinal que capture las diversas medidas en varios puntos durante un período más largo podría reflejar mejor la dirección de las relaciones entre las variables de estudio y su efecto en el desarrollo profesional de los docentes.

5.4. FUTURAS LÍNEAS DE INVESTIGACIÓN

Además de los niveles de docentes y directores, sugerimos que se realicen más investigaciones para examinar los niveles de los estudiantes, para obtener una perspectiva más amplia y diferentes puntos de vista. Tal estudio puede examinar mejor la contribución independiente de las comunidades de aprendizaje profesional al desarrollo profesional de los docentes. Una muestra más grande y mediciones repetidas en varios puntos de tiempo también podrían brindar una mejor comprensión de la relación entre PISGAH LOP y TPD. Además, se recomienda realizar estudios de intervención longitudinal para examinar más a fondo la dirección de las relaciones entre las variables estudiadas, así como su impacto en el desarrollo profesional de los docentes a lo largo del tiempo. Además, es importante comparar este estudio con estudios similares realizados en otros países para generalizar los resultados. El estudio futuro también puede buscar comprender en profundidad las diferencias en TPD encontradas entre el sector judío y árabe.

También recomendamos el examen de las percepciones futuras de los docentes con respecto a las habilidades que se espera que adquieran, y los formadores de docentes que se espera que los guíen. Es decir, las preferencias de los docentes en cuanto a su proceso de desarrollo profesional; cómo perciben las habilidades que necesitarán en cinco años; qué estilos y patrones de desarrollo profesional darán respuesta a estas necesidades; y el papel de los formadores de docentes y las calificaciones necesarias para este papel en el futuro. Examinar las necesidades de los docentes, procesos de desarrollo profesional presentes y futuros y las expectativas de los futuros formadores de docentes para mejorar sus habilidades profesionales.

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TÍTULO DE LA TESIS:

El Desarrollo Profesional Docente a través de una organización de aprendizaje “Programa PISGAH para directores en un marco escolar”: Un análisis multinivel utilizando el marco de Coherencia Interna.

Teacher Professional Development through a Learning Organization “PISGAH Program for Principals within a School Framework”: A Multilevel Analysis Using the Internal Coherence Framework

DOCTORANDO/A: ANAT HILEL

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 realizada por la doctoranda se ha llevado a cabo a lo largo de cuatro años de trabajo en los que ha compaginado su profesión con la investigación. Durante este tiempo la tutorización se ha realizado online debido a su lugar de residencia en Israel. Este proceso ha sido fluido en el tiempo y la doctoranda ha demostrado interés e iniciativa personal en el desarrollo de la investigación.

En cuanto a la tesis que se presenta, esta incluye un marco teórico actualizado y acorde al tema de investigación, destacando el desarrollo profesional del docente y su vinculación con el modelo de coherencia interna y su protocolo de evaluación, que se centra en el liderazgo para la mejora de la instrucción, los procesos organizativos de un centro educativo y las creencias de eficacia. Asimismo, presenta una reflexión sobre los factores que predicen este desarrollo profesional en los docentes como pueden ser la identidad profesional, la autoeficacia docente, los roles de los docentes y el liderazgo del profesorado en el aula. Además, incorpora otros factores que predicen este desarrollo profesional, pero centrados en los directores escolares, tales como el empoderamiento de la organización o la autoeficacia de la dirección, entre otros. Por último, se centra en el liderazgo ejercida por la dirección del centro educativo.

La investigación, de naturaleza cuantitativa, ha contado con el permiso del Ministerio de Educación israelí. Los datos han sido recogidos de diferentes centros educativos del país.

Las pruebas estadísticas realizadas en torno a los datos obtenidos son pertinentes, dando respuesta a los objetivos y las ocho hipótesis planteadas, permitiendo una discusión ajustada de los resultados y su argumentación en base al marco teórico redactado.

La tesis finaliza con unas conclusiones generales, una serie de limitaciones detectadas y una propuesta de futuras líneas de investigación.

Fruto de la tesis doctoral se ha publicado un artículo y se espera que se lleven a cabo otras publicaciones posteriores a la defensa de la misma. De igual forma, la doctoranda ha participado en acciones formativas desarrolladas por la Escuela de Doctorado de la Universidad de Córdoba, como las jornadas congresuales.

El artículo publicado ha sido el siguiente:

HILEL, A. Y RAMÍREZ-GARCÍA, A. (2022). The Relationship between Professional Environmental Factors and Teacher Professional Development in Israeli Schools. *Education Sciences*, 12, 285, 1-11. <https://doi.org/10.3390/educsci12040285> Indexada: SCOPUS (2021): SNIP: 1.314; SJR: 0.518; Cite Score: 2.9; Posición: 395 de 1406 (percentil 71).

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

Córdoba, 07 de enero de 2023

Firma de la directora

Fdo.: Antonia Ramírez García