Project number: 610448-EPP-1-2019-1-IL-EPPKA2-CBHE-JP

PROMENTORS

Promoting Mentors' Work in Education

ERASMUS+ – EU programme for education, training, youth and sport

Capacity Building in Higher Education

Deliverable D1.1

Elaboration of comparative report and recommendations for mentor training based on peer group mentoring and other models.

Due date: July 15,2020

Submission date: July 15,2020

Project start: January 15th, 2020   Duration: 36 months

Beneficiary and staff leading the preparation of this deliverable: : {Kaye College: Haya Kaplan, Vardit Israel, Shulamit Fisher, Huwaida Alhuashla, Anat Kessler; Bucharest University: Simona Iftimescu, Mihaela Stîngu, Elena Marin

Dissemination Level: PUBLIC

Document number:	D1.1
Document Title:	Elaboration of comparative report and recommendations for mentor training based on peer group mentoring and other models.
Work package type:	Preparation
Work package:	WP1 – Preparation
Document status:	Final
Date:	15.07.20
Author(s):	Haya Kaplan, Vardit Israel, Shulamit Fisher, Huwaida Alhuashla, Anat Kessler, Simona Iftimescu, Mihaela Stîngu, Elena Marin

Abstract	This document focuses on five mentoring models which have been presented by WP1 representatives. The models were reviewed by four teams: a team from Exeter University in England (Lesson Study), from Lublin University in Poland (CMTM – Community Model of Teacher Mentoring), a team from Jyväskylä University in Finland (Peer Group Mentoring – PGM) and a team from Kaye College in Israel (Reversed Mentoring and SDT/Autonomy-based Mentoring).

Keyword list:	Mentors, Mentees, MIT, Culture, Teacher Mentoring

The view of mentoring deriving from the different models
An integrative discussion from a theoretical perspective

The concept of mentoring has existed for thousands of years and goes back to Greek mythology. In the epic story Odyssey by Homer, <u>Odysseus asks his friend, Mentor, to look after his son Telemachus while he is away fighting in Troy. Mentor was Odysseus's friend as well as consultant.</u>

In recent decades, the expansive field of mentoring has given rise to rich theoretical and experimental literature (including qualitative, quantitative, and combined studies), including in Israel. The literature addresses a variety of aspects within mentoring, allowing us to examine different approaches, theories, models, and intervention programs across different populations and contexts.

This document focuses on five mentoring models (out of many more models described in the literature), which have been presented by WP1 representatives. The models were reviewed by four teams: a team from Exeter University in England (Lesson Study), from Lublin University in Poland (CMTM – Community Model of Teacher Mentoring), a team from Jyväskylä University in Finland (Peer Group Mentoring – PGM) and a team from Kaye College in Israel (Reversed Mentoring and SDT/Autonomy-based Mentoring).

A separate integrative document has been written by a team from Bucharest University in Romania **(see page 52),** which is also part of the leadership of WP1. This team composed an

integrative analysis of the documents on mentoring in academic institutions which have been written by nine Israeli education colleges, the Israel Ministry of Education, and four European partner universities (14 documents). Additionally, the Information Centre of Mofet institute has written a literary review about mentoring models. This current analysis does not include that review.

Table 1 presents a comparison of five mentoring models which have been identified, studied and analysed by the Kaye College team. It allows us to choose the optimal mentoring approach, suitable to current research findings and approaches (views about learning and teaching). The criteria for comparison were determined based on personal experiences of the team members as well as theoretical and experimental literature (such as Dawson, 2014; Pennanen, Heikkinen & Tynjälä, 2018).

See Table 1 – Comparative analysis of mentoring models (Page 15)

The literary review and comparative analysis of the models teach us about a paradigmatic change in the basic view on mentoring which has taken place in recent years. There are two main paradigms. The first, the traditional paradigm, is based on the transmission approach, while the other, the autonomy-based paradigm, is relational-humanistic. This latter paradigm characterizes the five models presented here and is supported by the Israel Ministry of Education.

See Table 2 – Mentoring paradigms (Page 48)

Traditionally, mentoring is defined as a situation in which an experienced professional (mentor) transmits knowledge to a colleague (mentee) at an early stage of the mentee's career (Heikkinen & Tynjälä, 2018). An alternative definition is a situation in which an experienced person helps a less experienced person to meet a challenge (Cruz , Goffb & Marsh, 2020).

The traditional paradigm of mentoring is based on theories of behavioural learning and motivation and on transmission models. The mentor is perceived as an experienced person with authority, who passes knowledge on to a colleague at the beginning of his career. The mentee is perceived as a passive person who requires assistance, guidance and direction to help him adjust to the school culture (the implicit message being that he or she must adopt existing practices). The relationship in this model is hierarchical and unidirectional, characterized by dictation and judgment (in case the new teacher does not adjust to the situation), and in some cases and contexts by autonomy suppression (Kaplan, Al-Sayed & Elbadour, in press). The mentoring structure in this model is dyadic, through one-on-one interactions between the mentor and mentee, and the mentoring focuses on knowledge transmission, working practices, skills and pedagogical issues (such as how to manage a classroom or how to plan a lesson) that the mentor (or the school) sees as professionally appropriate.

In the theoretical and experimental literature we find terminology that distinguishes between the different mentoring paradigms (Richter, Kunter, Lüdtke, Klusmann & Anders, 2013). Cochran-Smith and Paris (1995) distinguished between knowledge transmission mentoring and knowledge transformation mentoring. In the first model, the mentors see their role as experts who transmit the knowledge to the mentee in a hierarchical relationship. In this learning environment, the new teachers undergo socialization into the school's existing culture. In contrast, a knowledge transformation model assumes asymmetry but emphasizes a relationship of partners in which the mentor and mentee create knowledge together. Feiman-Nemser (2001)

distinguishes between conventional mentoring and educative mentoring. The first emphasizes adjustment to school and perceives the new teacher as a vessel that must be filled with knowledge. The latter provides opportunities for growth, as the mentor encourages the mentee to inquire and learn from the practice itself.

Burger and colleagues (Burger, Ohlemann, Himbert & Imhof, 2019) compared two mentoring paradigms: constructivist-oriented mentoring and transmission-oriented mentoring. The transformative and the educative models mentioned above reflect the constructivist approach. This mentoring style is focused on the mentee. Its mentoring relationship is not hierarchical, and the mentoring is based on mutual reflection, inquiry and autonomous decision making. The traditional mentoring and transmission oriented mentoring are based on the behaviorist learning theories. See a presentation of the different paradigms in Richter et al. (2013).

In a recent paper, Orland-Barak and Wang (2020) propose four different approaches to mentoring of preservice teachers during their training. The first is a Personal Growth approach, which emphasizes emotional support and identity construction. This approach highlights the motivational beliefs of teachers and their un-dictated development (through autonomy support). According to the writers, the Personal Growth approach is based on Self-Determination Theory, and thus goes hand in hand with the autonomy based paradigms presented in this document. Another approach that goes well with the autonomy based paradigm is the Critical Transformative approach, in which the mentor and the preservice teacher investigate, think and construct new knowledge together. Two additional approaches presented by the scholars – the Situated Learning approach and the Core Practice approach – reflect the traditional paradigm, since they are based on modelling, practice and socialization of the teacher into certain cultures and practices that the mentor and the school consider effective and important.

Studies conducted with beginning teachers have found that the constructivist approach yields better results than an approach based on the transmission model (Richter, et al., 2013; Voss, Wagner, Klusmann, Trautwein & Kunter, 2017). Richter et al. (2013) found that teachers who have undergone constructivist mentoring expressed higher levels of competence, teaching enthusiasm and job satisfaction and lower levels of burnout compared to teachers who have undergone transmission-style mentoring. Voss et al. (2017) found an increase in emotional burnout among teachers in their first year on the job and decrease in the second. But teachers with constructivism-oriented mentors dealt better with their teaching challenges and felt less burned out during their induction.

In a recent study that further investigated the differences between the paradigms, Burger et al. (2019) utilized Self-Determination Theory (Ryan & Deci, 2017) to examine the motivational mechanisms that underlie different mentoring models. They found that new teachers' mentoring based on the constructivist paradigm reduced the levels of emotional burnout and promoted a sense of competence by satisfying the mentees' need for autonomy (an experience of wellbeing). Satisfying the need for autonomy and the need for belongingness reduced unauthentic, shallow emotional expression. In contrast, a transmission-based model did not affect the sense of wellbeing of beginning teachers.

In our fieldwork, we often meet teachers with a transmission-style view of mentoring. This may reflect their teaching, which is also transmission-style – or, as Self-Determination Theory (Ryan & Deci, 2009) refers to it, a controlling style. Reeve (2009) introduces the following questions:

how do teachers adopt a controlling motivational style towards students and how can they become autonomy-supportive? He lists the following characteristics of a controlling teaching style: the teacher leads the lesson, does not allow other points of view, pushes students to think and act a certain way, relies on an external system of rewards for motivation, does not provide rationale. Similar behaviours may be observed in mentors who follow the traditional mentoring style.

Such an approach may be the result of cultural characteristics. In Bedouin schools, for example, teaching methods may reflect the traditional-patriarchal and collectivist patterns prevalent in the Arab society (Abu-Asbah, 2006; Alian, 2013). Yet such mentoring/teaching style may present itself among teachers of various cultures; we see these teachers in every new group in our mentoring training courses. It is therefore important to learn about the nature of traditional mentoring even if it does not reflect the approach taken by the academic institutions, mentoring coordinators, facilitators, or the Ministry of Education.

In recent years, new mentoring approaches have taken shape, based on group work and practice or learning communities, such as group mentoring and PGM (Pennanen et al., 2018). A model of community mentoring has developed in Poland (see the document of the Lublin University team – KUL, in the Promentors website).

The rise of these approaches reflects the integration of new learning and motivation approaches such as shared learning, professional learning communities, and the rise of the constructivist approach. Another factor has been the recommendation of the European Union to create mentoring that is based on a collegial, professional and non-hierarchical relationship (European Commission, 2010).

Pennanen et al. (2018) argue that this is a change of paradigm. They see a transformation from knowledge transmission to knowledge construction, as meaning and professional knowledge are created together. In addition, the theories that mentoring programs are based on have changed the roles of mentors and mentees.

In theories of career development, a shift has occurred from supporting career development through structured programs that emphasize assessment, supervision, hierarchy and even judgment, to programs that focus on emotional and social support. The peer mentoring approach highlights the humanistic qualities of the mentor as a critical friend and empathic supporter, who does not neglect the social and psychological aspects of the relationship.

Learning theories have traditionally focused on behavioural learning theories and knowledge transmission models (Haggard, Dougherty, Turban & Wilbanks, 2011; Pennanen et al., 2018). Over the years, the field of learning theories has developed, affecting the approach towards mentoring, which is now expected to reflect the ideas of critical thinking and knowledge construction and creation that are highlighted by socio-constructivist theories (Richter, Kunter, Lüdtke, Klusmann & Klusmann, 2013; Wang & Odell, 2007). Modern learning theories emphasize dialogic and mutual relationship, as adopted by the collegial and collaborative views of new mentoring methods (Heikkinen, Jokinen & Tynjälä, 2008). These practices include both formal and informal learning. The mentor's role has developed from an authoritative expert into a friend and a partner in a dialogue, while the mentee is active, critical and reflective about the mentoring relationship, in which both partners grow (Pennanen et al., 2018).

Social mentoring theories describe mentoring relationships in the context of social networks and social environments that include online mentoring. As a result, the understanding of what mentoring is has expanded beyond the dyadic structure into wide social networks. This approach is reflected in mentoring practices that rely on group work (Pennanen et al., 2018).

Social theories contribute not only to the recognition in social networks, but also to renewed thinking about socialization through mentoring. One of the risks identified in induction is unidirectional socialization of teachers into the existing culture of the school community. This process pushes teachers to adopt existing school practices and absorb its prevalent perceptions (Wang & Odell, 2007; Yuan, 2016). Mentors in this setup may hold on to a conservative approach of socialization, which attempts to preserve existing circumstances and force the new teacher to integrate into them. Instead, mentors can empower new teachers and enable them to be part of a critical and sustainable change, such that the culture is adjusted to the teachers rather than the other way around (Pennanen et al., 2018).

To implement this change, social theories that underlie induction programs emphasize the role of beginning teachers as active and empowered agents who contribute to the working school community together with their mentors (Dominguez & Hager, 2013). According to this approach, the mentors are colleagues who support the teachers in an egalitarian, collaborative relationship. Together they rebuild and reshape the community.

Self-Determination theory (Ryan & Deci, 2017) supports these changes from a motivational-humanistic perspective. The theory emphasizes the importance of a mentoring relationship that supports the psychosocial needs of new teachers: competence, belongingness, and autonomy. Under this approach, the mentoring relationship should allow both the mentor and mentee to grow within a meaningful connection that provides experiences of need satisfaction, which then promote autonomous motivation for teaching and mentoring.

This approach views the new teachers as active participants with potential to act out of self-determination and autonomous motivation. They are perceived as collaborative, agentive, with knowledge and interests, able to contribute both to the mentoring itself and to the school. The relationship is at the centre, as the mentoring is directed towards supporting the mentees' autonomy so that they are encouraged to act in their own way and be guided by their own needs.

Scholars and researchers have claimed that mentoring is not necessarily anchored in theory or draws upon clear cut definitions, as reflected in studies and interventions (Crisp and Cruz, 2009; Cruz, Goffb & Marsh, 2020; Dawson, 2014). This may result from the multiple contexts, populations and goals of mentoring, or from the dynamic nature of mentoring relationships, which change according to the context and needs of a specific situation (Mullen, 2012).

In recent years, scholars have advocated for humanistic mentoring (Cruz et al., 2020; Varney, 2009). According to Varney (2009), mentoring must include empathy toward the mentee, who is nurtured as a person on a journey of professional development. Beyene and her colleagues (Beyene, Anglin, Sanchez & Ballou, 2002) call for an interactive relationship between the mentor and mentee, and show how both can autonomously benefit from it. They discuss empathy, reciprocity and mutuality as central components in forming a strong and meaningful mentoring relationship. In such a relationship, the mentoring focuses on the human being and the

humanistic qualities of the mentor and mentee, rather than on content, knowledge or advice. In other words, humanistic mentoring prioritizes personal relationships over skills or knowledge.

Norman and Gasner (2004) discuss new teachers' mentoring under the humanistic model. They show how the humanistic approach focuses on the mentees' humanism. Mullen (2012) too relates to mentoring as a relationship in which both the mentor and the mentee grow within a meaningful connection. Martin and colleagues (Martin, Reggio & McCray, 2017) call for the development of humanistic mentoring models that rely on openness and collaboration. Such a model has been developed and implemented by Cruz et al. (2017) in a program that prepares high school graduated for college.

A comparative look at the models

Before we introduce the recommended approach to mentoring, let us compare the various models.

An analysis of the different models, as seen in Table 1, points to the following concepts as central (the number in brackets represents the number of times a concept has been mentioned in the text): partnership (53), group (46), community (44), dialogue (40), autonomy (36), relationship (33), motivation (32), development (31), justice and equality (30), mutuality (18), trust and respect (17). These concepts characterize the autonomy-based paradigm.

It seems that each of the models has added value. The PGP and the LS models emphasize the social-constructivist approach, i.e., creating and constructing knowledge through social interactions. The LS model centres around pedagogy and aims to develop, improve and implement innovative education practices through systematic, collaborative inquiry. Teaching and learning are at the core of this model. All models highlight the relationship between the mentor and mentee and the growth of both through the mentoring, which must take place in a safe, dialogical space of mutuality and equality.

All models present group mentoring, especially the PGM and LS models, through various methods such as community of practices or peer mentoring. Community-based mentoring (CMTM) focuses on the community aspect and includes integration of parents as partners in the growth of teachers, as well as communities of practice. Combining dyadic and group (peer) structures is possible in models of reversed mentoring, autonomy-based mentoring and community mentoring, which also combines dyadic mentoring (starting from the training phase through the induction period of beginning teachers).

Self-Determination Theory (SDT) seems to able to serve as a basic approach to the different models. Each of these models requires a need-supportive environment. In some of the models, scholars explicitly address autonomy support as an important component.

SDT is unique in emphasizing the growth resources of the mentor and mentee and the development of their relationship. It is a theory of motivation (Deci & Ryan, 2000; Ryan & Deci, 2017) which expresses a humanistic view of people. It represents a dialectical, organic approach that stresses the individual's natural inclination to be active and involved, to grow and develop, and to integrate experiences and perceptions into a coherent self (internalization). These premises echo the views we have found in the various models regarding the abilities and resources that new teachers bring with them to the school, the teaching role and the mentoring.

The models are all based on values of equality, mutuality and collegiality, as they see the new teacher's potential to grow, develop, and contribute to himself and his surroundings.

According to SDT, three innate and universal psychological needs underlie optimal development: belongingness, competence and autonomy. Satisfying these needs encourages internalization processes and contributes to optimal growth, autonomous motivation, investment, wellbeing and social adjustment. Suppressing these three needs, on the other hand, decreases motivation, leading to negative outcomes such as a sense of burnout and reduced investment. The theory maintains that optimal mentoring includes mutual support in the needs of both partners. Therefore, supporting the needs of teachers will allow the new teachers (as confirmed in numerous studies) to be actively involved and realize their ideals, abilities, interests and knowledge (satisfying the need for autonomy). The theory uniquely emphasizes processes of internalization. Internalization is especially important in light of the need to help teachers change their views and stances regarding the nature of the mentoring relationship, shifting from the traditional model to one based on autonomy (see a document of autonomy-based mentoring written by a Kaye College team in the Promentors website).

The recommended approach to mentoring

An analysis of the models and review of the mentoring paradigms lead to a mentoring approach that stems from an autonomy-based, relational-humanistic paradigm (henceforth – autonomy-based paradigm). This approach is enhanced by a recent paper by Orland-Barak & Wang (2020), in which they present a mentoring approach that focuses on personal growth and is based on SDT.

The autonomy-based mentoring approach we propose addresses the cognitive aspects of learning based on a constructivist-social approach. It also relates to the social aspects of mutual support and to the empowerment of communities and peer groups. Additionally, it highlights psychological and motivational aspects that derive from experiences of satisfaction of psychological needs of both mentor and mentee, internalization processes and autonomous mentoring motivation (and in parallel, autonomous teaching motivation) which might derive from such experiences. The mentoring is directed towards the mentee's autonomy, so that he or she feels free to act in their own way and according to their own needs.

This approach is founded on humanistic values of autonomy, trust, dialogue, mutuality, justice and equality, acceptance of different people, community, collaboration and cultural sensitivity.

At the center of this mentoring approach is the relationship between the mentor and mentee or between the colleagues at the MIT mentoring community. Under the approach, the mentoring relationship allows partnership, mutual support, and experiences of psychological need satisfaction for all participants. The relationship is based on trust and the creation of a safe place for dialogue on personal issues, as well as on flexibility and relevancy – the contents of the sessions are determined by both mentor and mentee. The relationship takes the form of an encounter between equal agents. It is a process that enables all partners to continue their professional identity construction.

The learning processes allow participants to create and construct knowledge and meaning through social interactions and constructivism. The mentor is a critical friend, while the mentee is an active, reflective thinker.

This approach recognizes the resources that beginning teachers bring with them (such as knowledge, innovative pedagogy, technology, internal resources) and the mentoring applies various methods that allow these resources to shine. For example, teachers present new pedagogies in reversed mentoring, new teachers take part in lesson planning in the LS model, practice communities include both new and senior teachers, and more. Mentoring in these models empowers beginning teachers as change agents and active participants. It perceives them as having potential to act out of self-determination and intrinsic motivation as partners and agents with knowledge and interests, who may contribute to a sustainable change in the school and the community.

The mentors are colleagues who support the new teachers in an egalitarian and reciprocal relationship that affects the surrounding culture. The mentor is critical, empathic, and focuses on psycho-emotional and social aspects in mentoring in addition to cognitive and pedagogical aspects. The mentor acknowledges the mentee's knowledge and respects it, allowing him or her to develop in their own way (i.e., autonomy-supportive).

Specific recommendations deriving from the mentoring approach

- A mentoring approach that bases itself on Self-Determination Theory is recommended as a foundational approach. It advocates for a relationship that allows all mentoring partners to experience need satisfaction. Such experiences may, in turn, promote internalization of an autonomy perception that is linked to the mentoring relationship (distinguished form a paradigm of transmission) and autonomous mentoring and teaching motivation. Such a perception may integrate well into a mentor-mentee connection in dyadic mentoring or in peer mentoring that takes place within a group or a learning community.

- In the Promentors project, the community of the school or town MIT forms the necessary organizational infrastructure for implementing an autonomy-based mentoring approach. Per our experience in incubators in southern Israel, and in line with the conclusions of the WP2 team, there are various models for integrating mentors into incubators/MITs, which we will continue to develop within Promentors. The proposed approach may be integrated into mentors' training in various models to be developed, as well as in actual mentoring processes. These processes will be based on collaborations with different mentoring-related bodies (such as the school management, policymakers and senior teachers). We also aim to build systemic processes that will shape a school culture that supports the psychological needs – particularly autonomy – of beginning teachers and the entire school faculty, and in parallel, the psychological needs and autonomy of students.

- Since the characteristics of each of the models are in line with the autonomous humanistic-relational paradigm (despite their differences), we do not recommend one model over the other for the Israeli mentoring system. It seems to us that the different models can be implemented and integrated according to the nature of each college, the needs of the specific school, the specific context of the yearly mentoring process, etc. Each college can autonomously decide to integrate a certain model in a specific context at a specific point in time. An integrative approach to mentoring models is also proposed by Orland-Barak & Wang (2002). We do not intend to blur the differences between the models or the uniqueness of each one. Rather, we propose a basic approach that

addresses **the nature of the mentoring relationship, in which various models can be implemented**.

- The distinctions between the models presented above can serve as criteria for choosing a model (in a specific time and context). The LS model, for example, may be appropriate for school MITs, where a certain pedagogical or disciplinary aspect needs to be promoted. Thus, the implementation of each model should be determined by the college.

- The dyadic model and group or community models may be combined. Each may be appropriate as long as they yield a mentoring relationship which reflects the approach presented above. For example, the mentoring in the mentors' course in Ikraa school in Lakiya followed the dyadic model, but included three PGM sessions through the Zoom platform, in which the teachers mentored each other in a group (see the assessment report of that pilot program).

- The tables comparing between the models (Table 1) and the paradigms (Table 2) can serve the partners in various ways. They can serve as a basis for comparative discourse about models, examination of existing models as part of a process of change (such as examining the mentoring perception at the college), when the need arises to choose an appropriate model, when planning an intervention program, as a basis for planning a research study, when choosing a central theory or selecting the most appropriate methods, etc. The tables can be expanded so that they compare other dimensions as well.

- The colleges are invited to study their own perception of mentoring and how it relates to their educational views, examine the current reality against the current document, choose the best features and even propose their own mentoring model and integrate it into the proposed paradigm.

Issues for further consideration

- The analysis of mentoring models in European countries has exposed us to approaches that diverge from what we are used to in Israel. It has raised questions such as the following: what is mentoring? Can we expand existing conceptions on mentoring? What are the contexts of mentoring?
In Poland, for example, the university facilitator and the school mentor (in Israel, these functions are called 'pedagogical guide' and a training -teacher') are considered mentors. Mentoring starts with teachers' training and continues through their induction (as the teacher moves up in the ladder of professional promotion). In light of this information, how may our colleges promote mentoring that begins when the training begins, rather than in the third year (a continuum approach)? Such a perception of mentoring is proposed by Orland-Barak & Wang (2020), who view mentoring on a continuum that starts with the training and extends through the induction phase.

- We have been exposed to various mentoring models in various populations and contexts: mentoring in academic institutions, peer mentoring of students, mentoring of pupils by teaching prodigies (in the Lublin University model) and more. How can these models be

integrated into colleges, schools and MITs? (See the document on autonomy-based mentoring for additional contexts).

- The Israeli school system has a mentor-teacher, a training-teacher, a mentor, an accompanying teacher. Are they all mentors? If so, why is there multiplicity of titles? How do these roles differ and where do they overlap?

- The group and community mentoring models we have been exposed to are reminiscent of our workshops for interns and beginning teachers. Does that mean these workshops perform group mentoring? We may consider including PGM sessions in these workshops. As they have large groups, we may want to first divide the participants into smaller PGM groups.

- Further questions?

*****

References

Abu Asbah, K. (2006). The Arab education system in Israel: Development and the current situation. In A. Haidar (Ed.), *Arab society in Israel: Population, society, economy* (pp. 210-221). Jerusalem: Van Leer Jerusalem Institute; Tel Aviv: Hakibbutz Hameuchad (Hebrew).

Alian, S. (2013). Good teaching and significant teachers in the eyes of Arab students in Israel: Implications for the training of Arab teachers. In: A. Agbaria (ed.). Teacher training in Palestinian society in Israel: Institutional practices and educational policy (pp. 215-234). Tel Aviv, Israel: Resling. [Hebrew].

Beyene, T., Anglin, M., Sanchez, W., & Ballau, M. (2002).Mentoring and relational mutuality: Protégé's perspectives, *Journal of Humanistic Counselling, Education and Development*, 41(1), 87-102.

Burger, J., Ohlemann, S., Himbert, M., & Imhof, M. (2019, September 9-12). *Formal Mentoring in Teacher Induction – the Role of Basic Need Satisfaction [Poster presentatio*n. Joint conference of the developmental psychology and educational psychology sections of the German Psychological Society, Leipzig, Germany

Cochran-Smith, M., & Paris, C.L. (1995). Mentor and mentoring: Did Homer have it right? In J. Smith (Ed.). *Critical discourse on teacher development* (pp 181-202). London, UK: Cassell.

Crisp, G., & Cruz, I. (2009). Mentoring college students: A critical review of the literature between 1990 and 2007. *Research in Higher Education,* 50(6), 525-545.

Cruz, J., Goffb, M.H., and Marsh, P.M. (2020). Building the mentoring relationship: humanism and the importance of storytelling between mentor and mentee. *Mentoring & Tutoring: Partnership in Learning*, 28 (2), 104-125.

Dawson, P. (2014). Beyond a definition: Toward a framework for designing and specifying mentoring models. *Educational Researcher*. 43(3), 137-145.

Dominguez, N., & Hager, M. (2013). Mentoring frameworks: synthesis and critique. International *Journal of Mentoring and Coaching in Education*, 2(3), 171-188. https://doi.org/10.1108/IJMCE-03-2013-0014v

European Commission. 2010. *Developing Coherent and System-wide Induction Programmes for Beginning Teachers: A Handbook for Policymakers*. European Commission Staff Working Document SEC (2010) 538 Final. Brussels: Commission of the European Communities.

Feiman-Nemser, S. (2001). Helping Novices Learn to Teach: Lessons from an Exemplary Support Teacher. *Journal of Teacher Education*, 52(1), 17-30. https://doi.org/10.1177/0022487101052001003

Haggard, D.L., Dougherty, T.W., Turban, D.B., & Wilbanks, J.E. (2011). Who is a mentor? A review of evolving definitions and applications for research. *Journal of Management*, 37(1), 280-304.

Heikkinen, H. L.T., Jokinen, H., & Tynjälä, P. (2008). Reconceptualising mentoring as a dialogue. In G. Fransson & C. Gustafsson (Eds.). *Newly qualified teachers in Northern Europe. Comparative Perspectives on* promoting professional development (pp 107-124). Gävle: Högskolan I Gävle.

Kaplan, H., Al-Sayed, H., & Elbadour, E. (in press). Voices of Suppression among Beginning Teachers. Journal of Teacher Education.

Martin, S.T., Reggio, P.F., & McCray, C. (2017). The future of mentoring: strengthening sustainability Through a Humanistic Approach. In B. S. Cooper & C. R. McCray (Eds.), *Mentoring for school qualit*y (pp. 111-122). New York, NY: Rowman & Littlefield.

Mullen, C.A. (2012). Mentoring an overview. In S.J. Fletcher & Mullen,(Eds.), *The Sage handbook of mentoring and coaching in education* (pp 7-23) Thousand Oaks, CA: Sage Publication.

Norman, D.M., & Ganser, T. (2004). A humanistic approach to new teacher mentoring: A counseling perspective. *Journal of Humanistic Counseling, Education and Development*, 43(2), 129-140.

Orland-Barak, L., and Wang, J. (2020). Teacher Mentoring in Service of Preservice Teachers' Learning to Teach: Conceptual Bases, Characteristics, and Challenges for Teacher Education Reform. *Journal of Teacher Education*, Published on line, 10.1177/0022487119894230

Pennanen, M., Heikkinen H.L.T., & Tynjälä, P. (2018). Virtues of Mentors and Mentees in the Finnish Model of Teachers' Peer-group Mentoring. *Scandinavian Journal of Educational research*, DOI: 10.1080/00313831.2018.1554601. Published online: 20 Dec 2018.

Reeve, J. (2009). Why teachers adopt a controlling motivating style toward students and how they can become more autonomy supportive. *Educational Psychologist,* 44(3), 159-175.

Richter, D., Kunter, M., Lüdtke, O., Klusmann, U., Anders, Y., & Baumert, J. (2013). How different mentoring approaches affect beginning teachers' development in the first years of practice. *Teaching and Teacher Education*, 36, 166-177.

Varney, J. (2009). Humanistic mentoring: Nurturing the person within. *Kappa Delta PI Record*, 45(3).127-131.

Voss, T., Wagner, W., Klusmann, U., Trautwein U.,, & Kunter, M. (2017). Changes in beginning teachers' classroom management knowledge and emotional exhaustion during the induction phase. *Contemporary Educational Psychology*, 51, 170-184doi.org/10.1016/j.

Wang, J., & Odell, S. J. (2007). An alternative conception of mentor–novice relationships: Learning to teach in reform-minded ways as a context. *Teaching and Teacher Education*, 23(4), 473–489.

Yuan, E.R. (2016). The dark side of mentoring on pre-service language teachers' identity formation. *Teaching and Teacher Education*, 55, 188- 197.

Table 1

Comparative analysis of mentoring models presented in the work package

Parameters for comparison	Peer Group Mentoring - PGM	Reversed Mentoring	Lesson Study	CMTM - Community Model of Teacher Mentoring	Autonomy-based Mentoring (SDT)
1. The core principles of the model					
Presenting the model and its uniqueness	Mentoring in small groups with both experienced and beginning teachers. Meets monthly to discuss professional issues and challenges. A group dynamics in which participants learn from each other and construct knowledge through social interactions on the basis of personal narratives and insights (social constructivism).	A young employee mentors an experienced one in the areas where young people tend to have an advantage, such as technology, social media and digital communication. The central principle is a reversal of roles, from the classic approach in which the senior employee is the mentor and the young one is the mentee.	This model supports collaborative learning of teachers around a central topic, often in order to develop innovative pedagogy. Professional learning that dramatically improves teachers' methods and knowledge regarding learning and teaching. The model focuses on a systematic inquiry of the connection between teaching and students' learning.	Mentoring begins with the training phase (5 years). Pre service teachers have a mentor in the school and a mentor in the university. New teachers have a mentor through the first two stages of their professional development, the first one being their internship. For the mentor's role see the document of the model.	This mentoring model is based on Self-Determination Theory (SDT; Ryan & Deci, 2017). The theory focuses on processes that promote autonomous motivation, wellbeing, internalization and prosperity of both mentor and mentee. According to SDT, people experience optimal development when they feel that their

					three basic psychological needs – competence, belongingness and autonomy – are satisfied.
	Self-determined peer group (when, where and the meetings' content). There is mutuality so that the participants contribute to each other. This mentoring model does not include assessment, standardization, or control.	In reversed mentoring, a beginning employee shares his knowledge and expertise with a senior one.	Mentoring takes place in groups, usually with 3 participants, one of whom is the mentor. The groups provide a dialogical and equal space of inquiry. Participants plan, implement (and observe), discuss, summarize and improve teaching knowledge and methods through systematic investigation. This process takes places in repeated cycles of teaching, reviewing and revising a lesson.	In addition to dyadic mentoring, there are other patterns of community mentoring, such as inter-generational mentoring, in which teachers mentor each other: 1) University students mentor school students during their training, as a transitional stage into teaching; 2) Mentoring in practice communities (seminars, conferences, meetings with inspirational teachers); 3) volunteer communities of new teachers; 4) communities of new and experienced teachers; And 5) communities that include the parents.	To promote such feelings, a need-supportive environment is required. The model emphasizes a mentoring relationship that is based on trust and need support through an autonomy supportive process, allowing the teachers to develop in their own unique way. The mentoring in this model can be dyadic or in groups.

Parameters for comparison	Peer Group Mentoring - PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
What theories is the model based on?	Learning and professional development theories: • Social constructivism. • Integrative pedagogy: theoretical knowledge, practical/experiential knowledge (skills), self-regulation (reflection, meta-cognition), socio-cultural knowledge. • Peer learning. • Dialogue and autonomous narrative (group goals in a social space). • Justice and equity	• The social generation theory • Work-based learning • The Social Exchange theory • Andragogy • Self-Authorship theory	The model was developed in Japan and is backed by empirical evidence. It focuses on a collaborative inquiry in a community of practice within a safe motivational environment that allows risk taking while analyzing socio-cultural discourse. The LS Model: Bjuland & Helgevold, 2018; Næsheim-Bjørkvik et al., 2019	The Christian philosophy of the human being stands at the basis of education in Poland. The university's vision centers on personalizing the human being, who develops thanks to his relationships with others. In education, the relationship resembles a dialogue through which both partners (teacher-student; mentor-mentee) develop. The teachers develop in their kills, competencies and knowledge, as well as personality. These premises form the basis for the concepts of community and mentoring, mutual acknowledgment in shared values, abilities and skills. The community provides an opportunity	Self-determination Theory (SDT; Deci & Ryan, 2000; Ryan & Deci, 2017). In addition, theories of career development, particularly in the aspects of exploration support. Flum & Kaplan, A. 2006 Kaplan, A. & Garner, 2020

Parameters for comparison	Peer Group Mentoring - PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
				for personal growth of a person's true self.	
What are the central concepts of the model?	Social constructivism Integrative pedagogy Justice, equality Autonomy Dialogue Narrative	Open dialogue Reversed mentoring Mutual relationships Personal growth Internal locus of control Intergenerational communication	Professional community of practice Collaborative inquiry Socio-cultural discourse analysis Dialogical space Motivation caring	Community-based mentoring Personalization Relationship Dialogue Reflection Educational vision partnership	Self-determination Psychological needs (autonomy, competence, belongingness) Internalization Autonomous motivation Need-supportive dialogue
What are the core values of the model?	Justice or equality (existential, epistemic, legal) Professional autonomy Partnership Ethical discourse and confidentiality	Autonomy Trust Mutuality Partnership Equality and social justice Respect for others Honesty Openness for learning	Collaboration Equality Trust	Community Dialogue Relationship Partnership	Autonomy Mutuality Social justice and equality Accepting the Other Cultural sensitivity Partnership
Parameters for comparison	**Peer Group Mentoring - PGM**	**Reversed Mentoring**	**Lesson Study**	**CMTM**	**Autonomy-based Mentoring (SDT)**

Who is involved in the mentoring process?	In service teachers (mentors) Beginning teachers Pre service teachers Academia, education and community figures	Beginning teachers, experienced teachers, school administration	An LS group includes two new teachers / pre service teachers / in service teachers, and a teacher who acts as mentor and facilitates the collaborative inquiry. Other possible participants are counselors, teachers, teaching assistants, parents, and disciplinary specialists.	Mentor (teachers with varied experience) university lecturer Pre service teachers school children parents community experts	Mentoring teacher (a senior teacher) Intern or beginning teacher Principal, school functionaries
What are the unique goals of the model?	• To support learning, development, professional identity and wellbeing of young teachers (also - interdisciplinary teams and adult learning). • To support participants professionally, socially and personally (prevention).	• To enhance new teachers' sense of competence and belongingness. • To retain quality teachers in in the school. • To develop teachers as leaders and agents of change and innovation. • To nurture motivation and self-determination among new teachers (as opposed to relying only on veteran teachers).	• To develop, improve and implement innovative teaching methods through systematic collaborative inquiry. • To investigate, on the macro level, the internal relationships between teaching and learning as a basis for improving	• To support the professional development of education students and new teachers. • To develop effective teachers and retain them. • To inspire and enhance new teachers' motivation to deal with	• To promote professional development and construction of role identity of both mentor and mentee. • To retain or promote autonomous mentoring motivation, particularly of beginning teachers. • To promote a mentoring

• To provide education students with an opportunity to participate in a professional community of practice. • To promote inter-generational learning of teachers at varies stages of their career.	• To develop soft skills (teamwork, communication, creativity, dialogues, etc.). • To promote organizational renewal and introduce new technologies and pedagogical methods. • To promote a comfortable working climate of equality, mutuality, open communication and collaboration between new and experienced teachers (non-hierarchical relationships). • To close intergenerational gaps in the organization.	professional practices.	professional challenges. • To provide support that allows new teachers to succeed. • To help new teachers develop the knowledge and skills required on the job. • To enhance the social, moral and personal competencies of future teachers. • To promote the new teacher's confidence.	relationship that is based on mutuality, partnership and equity. • To support the psychological needs and promote autonomous teaching motivation of beginning teachers. • To learn methods of supporting psychological needs in mentoring. • To nurture an environment and opportunities that support the psychological needs of both mentor and mentee (in the school and the incubator). **See additional goals in the document that presents the model.**

Parameters for comparison	Peer Group Mentoring - PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
2. The mentor					
How is the mentor selected?	There are no set requirements, but several years' experience is needed. Some of the mentors have participated in peer groups. Teachers can volunteer when there is a call for mentoring training. The training is during work hours, so the employer's approval is needed.	The young mentors are chosen among the school's interns or beginning teachers according to organizational needs and goals, the organization's developmental process, and the context.	The mentoring teacher is an experienced teacher from the school faculty who guides the development of the teaching and learning goals. He or she is chosen based on their knowledge and experience.	During the training, school mentors are chosen by the school administration, while university mentors are faculty members. Assigning mentors at the first two stages of professional development is done by the principal.	In the Israeli model, the mentor is chosen by the school principal and must have at least 4 years of teaching experience. According to the Israel Ministry of Education guidelines, the mentor must complete a mentoring course.
What organization does the mentor belong to?	The mentors work at the schools, which collaborate with an academic institution. All academic institutions are part of a national PGM network.	The young mentor belongs to the same organization as the mentee, which enhances the sense of belongingness and allows inter-generational	Teachers at the educational institution or school where the mentee's internship takes place.	Some of the mentors work at the same school as the mentee. Other mentors are university faculty members.	Ministry of Education, schools and preschools.

Parameters for comparison	Peer Group Mentoring - PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
				organizational communication.	
What is the mentor's role?	To support mentees' empowerment and creating a professional community. To organize the mentoring session: setting the group, preparation, practical arrangements. To facilitate the sessions: creating a contract, asking questions, guiding various experiences. The mentor is a group member of an equal status.	The mentor (the new teacher, leads a process of learning and change within the school; conducts open and respectful communication with senior teachers (the mentees); and expose them to new knowledge (technology, stances of the younger generation, etc.)	To facilitate the LS learning cycles. To enable collaborative learning and investigation of theory and practice in a safe motivational space that is meaningful to all participants.	During the training accompanying the student in his integration into the school, pedagogical and didactic support, assisting in handling disciplinary, educational and administrative issues, collaboration with parents and more. During the internship (the two stages of professional promotion): getting to know the school, documents and events, assistance in drawing plans for professional development, observing mentee's lessons, following his/her actions, sharing knowledge and experience, nurturing motivation to meet challenges, developing skills and knowledge, pre-promotion assessment and evaluation.	The mentor commits to a specific training to develop the relevant skills. He or she must also commit to a long-term relationship that is based on trust, mutuality, and support in the new teacher or intern. The mentor supports the intern's/new teacher's psychological needs and creates for him/her an optimal environment for professional identity construction. The mentoring process serves as a model for a parallel process with the school students. The mentor-teacher promotes a school culture of need support, helping new

| | | | | | teachers to integrate into the school in an optimal manner. This is a systemic aspect of the mentor's role. |

Parameters for comparison	Peer Group Mentoring - PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
What are the skills, qualities and abilities of the mentor?	Highly motivated to collaborate on professional development of skills, methods and expertise. Mentors and mentees: express empathic support that highlights the humanistic qualities of mentoring, conduct dialogue, and act in collaboration (see below – the nature of the relationship).	The mentor (a young teacher) must have a sense of confidence and competence, interpersonal communication skills, ability to conduct an open and equal dialogue, proactivity, and good listening skills. He or she is also required to treat his seniors with respect and consideration.	Collaborates, familiar with the LS learning cycles, creative and critical thinker, knowledgeable in teaching and learning. Has the qualities of a researcher, able to create a safe motivational environment and a meaningful dialogue based on a nonhierarchical view of group dynamics.	The mentor must focus on five aspects: biological (health and safety), psychological (emotional support), social (creating a community and building a relationship), cultural (realizing values and transmitting cultural knowledge), and general beliefs (Catholic faith, community as a pillar). The mentor is expected to provide emotional support, emphasize morals, create and lead a community, collaborate, treat the mentee equally, and conduct meaningful dialogue that promotes the growth of both mentor and mentee. The mentor must be caring and curious. He	The mentor understands the value of need-support in mentoring. The mentor is autonomously motivated for teaching and mentoring. He/she is oriented to exploration, curiosity and self-inquiry, and encourages the same qualities in the mentee. The mentor is open to personal and professional learning and growth through parallel processes with the mentee. The mentor encourages the

				should allow free choice and not force his ideas on the mentee.	mentee's authentic self-expression The mentor encourages proactivity, initiatives and agentic engagement.

Parameters for comparison	Peer Group Mentoring - PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
How does mentoring benefit the mentor?	Both new and experienced teachers have generally found that PGM contributed to their professional development and sense of wellbeing. Based on research, 96% of PGM participants have found that their participation was important, and 84% reported that their group members supported their professional development. The advantages for the organization were mostly indirect, but it	Improvement in social and emotional skills, increased sense of competence, work satisfaction. Mastery of new professional skills. Opening up interpersonal communication channels with people that were otherwise unlikely to interact with the mentor. Strengthening the motivation to contribute to the organization. Acquisition of creative working skills, self-	Improvement in the professional knowledge of the teachers (mentors and mentees). Developing critical and reflective thinking regarding the impact of learning on the students. Understanding how learning happens. The model helps mentors be clear about their practice and notice aspects of it they have not been aware of the need to share with apprentices or new teachers.	In the mixed group, there is mutual learning so that each participant learns from the others. The young teachers learn from their seniors' knowledge and skills while the seniors learn from the young teachers' skills (e.g. in technology) and receive an opportunity to examine familiar problems from a new perspective. The mentoring helps teachers promote their professional knowledge. It leads to collaborative guidance of professional development processes (of pre service teachers and new teachers) and	The mentoring teacher experiences a meaningful process of professional development and particularly identity construction of the mentor identity. Experiences of need satisfaction promote autonomous motivation for both teaching and mentoring. According to research, experiences of need satisfaction in mentoring promote a sense of self-fulfillment, investment in mentoring and a

	Peer Group Mentoring - PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
	has been noted that some teachers had been trained to act as change agents in their schools.	determination, critical thinking. Teachers learn to be honest and open in a genuine learning environment, develop dialogue and rely on themselves at the face of workplace challenges.	Understanding feedback as a way to improve teaching and not merely as an assessment tool. Improving the students' involvement, motivation and achievements. Developing a collaborative school culture that promotes competence, motivation and creative thinking among teachers.	contributes to the education system.	sense of wellbeing. They also reduce burnout. An experience of need satisfaction during mentoring training promotes internalization of the views, values and practices of mentoring. See additional benefits in the document that presents the model.

Parameters for comparison	Peer Group Mentoring - PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
What is the mentor's compensation?	The mentors volunteer, but it is recommended that they get paid for organizing and facilitating the groups.	In Israeli schools, this mentoring model can be implemented in a school or town incubator. In other organizations the mentor may be compensated, depending on the model used.	The mentor is a school employee who is compensated according to his role in the organization.	Mentoring at school is done voluntarily. University faculty mentors are compensated as part of their work.	The Israel Ministry of Education pays for the mentoring (as it is part of the teaching role). Teacher-mentors who take the training course receive points for promotion.

What is expected from the mentor?	The mentors must complete a training course (see below). They need to be motivated and oriented to dialogue and to active and equal participation. They also need to have organizational and facilitation skills.	The young mentor need to be willing to teach the senior teacher various skills (such as new pedagogies, technological skills), collaborate on projects, and be committed to the mentoring process and its activities.	The mentor is a researcher and facilitator who collaborates with the mentees at the LS group. His role is to lead the process according to the model's stages and principles and to promote the participants' construction of shared insights and professional development.	The requirements and expectations of the mentor depend on the career stage of the mentee. Mentors of pre service teacher (180 practice hours) are required to accompany the mentee through his training lessons (see mentor's role).	The mentor need to be familiar with Self-Determination Theory and the concept of needs: belongingness, competence and autonomy (theoretical knowledge), in addition to skills and methods of supporting mentees through an optimal mentoring relationship (practical knowledge).
	Mentors of beginning teachers are expected to help their mentees integrate into the school emotionally, socially and professionally. They also assist them in their professional development process. The mentors are also required to help in the assessment when the new teacher is up for ranking promotion. They have to adjust their mentoring approach to that of	The mentor need to encourage proactivity and initiatives that are based on the new teachers' strengths and interests; and support their agentic engagement, i.e. their ability to create their own need-supportive environment, as opposed to merely adjusting to the situation (Reeve, 2013). The mentor need to be oriented to exploration, i.e. curious and motivated for self-inquiry through a continued process of mentoring-related identity construction (internal processes characterized by a sense of autonomy).			

	the university (community orientation, personalization).		

Parameters for comparison	Peer Group Mentoring -PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
3. The mentee					
Who are the mentees?	Students, pre service teachers	The mentee is a senior employee who is willing to be mentored by a new employee.	A new teacher or a teaching apprentice.	Pre service teachers during their training and new teachers during their first three years on the job (the first two ranks).	Students during their experimental teaching (3rd year, academy-classroom), interns (4th year) and new teachers (the first post-internship year).
How long is the teacher considered as mentee?	During one academic course or one school year.	There is no set definition. It depends on the particular needs of the organization.	The length of LS mentoring depends on the cycles of inquiry and learning and is a school decision.	The entire training period and three additional years (during professional development).	According to the guidelines of Israel's Ministry of Education: during the 3rd year of training, the 4th year of training (the internship) and one additional year.
Parameters for comparison	**Peer Group Mentoring -PGM**	**Reversed Mentoring**	**Lesson Study**	**CMTM**	**Autonomy-based Mentoring (SDT)**
What is the mentee's role?	To be an active participant in the peer group, to share knowledge and narratives, to	A learner who perceives learning as central to his role in the organization, is open to acquiring	To be an active and critical partner; to inquire, observe and provide feedback; to investigate and learn	To be active in the dialogical space of the mentoring, to do the tasks required at every career stage. To	Formal demands: to work with the mentor (3rd year); meet the mentor weekly for 10 months (during internship year),

	assist in constructing knowledge around challenging teaching and school issues.	new skills, and aware of the areas where he or she may develop.	collaboratively with the mentor and other partners.	participate in the community mentoring frameworks (seminars, conferences, communities of practice, etc.)	complete 20 workshop hours (in the post-internship year). Each year mentees have specific tasks (some related to the internship assessment). In the mentoring relationship: the new teacher need to be active and proactive, bring authentic cases for discussion, share emotions and experiences, take responsibility over his/her professional development. the new teacher commits to a steady connection with the mentor, need to be active and proactive, bring authentic cases for discussion, share emotions and experiences, take responsibility over his/her professional development.

Parameters for comparison	Peer Group Mentoring -PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
What is expected of the mentee according to the model (process, outcome)	Pre service teachers and new teachers are invited to participate in PGM groups with	The mentee need to accept the mentor's expertise and is required to collaborate with him, respect the	The new teachers or preservice teacher is expected to focus on the students' learning and not only on their involvement in the	180 practicum hours, completing all practicum requirements with the assistance of the mentor. After the	The mentee will experience a meaningful, need- and exploration-supportive relationship, a sense of need satisfaction and

	Peer Group Mentoring -PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
	in service teachers (the mentors). For pre service teachers, PGM is an elective course and part of the academic curriculum. The mentee is expected to be an active participant, attend regularly, and keep to the ethical guidelines.	opportunity to learn from the younger employee, and be open to learning and growing. Honesty is an important element in this model.	lesson. They are also expected to pay attention to critical aspects of teaching, develop deeper understanding of teaching methods, and link different aspects of classroom practices.	training – three years of being mentored, completing the requirements for professional development, completing successful assessment. In the communities of practice, thinking systematically about the practice, learning from experience, developing friendships within the learning communities, offering moral, intellectual, and academic support to peers and helping them resolve dilemmas.	wellbeing. These experiences in turn will promote the mentee's autonomous teaching motivation and encourage role identity construction (who am I as a teacher?). The mentoring relationship will model a parallel relationship between the mentee and his students, through self-determined pedagogy. The mentoring will promote experiences of optimal induction, which in turn will promote involvement in teaching and the school life (proactivity, motivation to contribute to the community).
Parameters for comparison	**Peer Group Mentoring -PGM**	**Reversed Mentoring**	**Lesson Study**	**CMTM**	**Autonomy-based Mentoring (SDT)**
What are the views on the new teacher – the mentee?	A view of equality and collegiality: the new teacher is equal to the	The new teacher (who is the mentor) has skills and abilities that may contribute to	The mentee is perceived as open for learning and able to help improve and develop teaching	Optimal professional development of both new and experienced teachers takes place	Self-Determination Theory perceives the new teacher as a person with growth resources

Parameters for comparison	Peer Group Mentoring -PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
	mentor and other group members in his potential impact and contribution. The knowledge and vision of all participants carry the same weight, and they combine to create new insights. The new teacher's professional autonomy and work status equal those of the mentor.	experienced teachers and to the school as an organization. The experienced teachers (the mentees) are at a constant learning mode and can benefit from their young colleagues' contemporary knowledge.	practices through the perspective of the LS model. The model is non-hierarchical, so that the new teacher is seen as a valuable partner who leads the inquiry and learning cycles together with the mentor and provides meaningful contribution.	within a supportive, collaborative community that promotes dialogue, reflection and learning. New teachers can learn from experienced colleagues, but they also have knowledge and abilities that may contribute to the veteran teachers. They can provide new perspectives on familiar problems. Learning is mutual and benefits both partners. They learn together in various learning platforms.	that require a need-supportive environment to be realized. Lack of motivation or dissatisfaction reflect experiences of need-frustration, which can be changed with the help of a positive mentoring experience. The new teacher brings to the mentoring abilities, interests and knowledge, which can be expressed in an environment that encourages self-expression, exploration and self-discovery (autonomy support, initiation). The mentoring relationship emphasizes equality, belief in the new teacher's growth potential and in his ability to contribute to the school and the community.

What are the benefits of mentoring for the mentee?	National surveys have indicated that both new and experienced teachers generally find PGM important for their development, identity construction and wellbeing.	• Understanding the language of the young generation. Getting to know new perspectives and trends. • Improving social and emotional skills, increased sense of competence. • Closing digital and technological gaps. • Promoting breakthrough innovations. Defining future directions. • Starting diverse communication channels that allow organizational knowledge to flow in a network pattern and not necessarily hierarchically. • Promoting equality among employees and creating positive organizational climate.	Improving the professional knowledge (theory and practice) of both mentors and mentees. Improving motivation and self-competence. Developing reflective and critical thinking about the impact of teaching on students' learning. Developing deep understanding of teaching practices. Creating meaningful connections with colleagues through collaborations and rich discussion of teaching-learning processes. Improving students' achievements and promoting their involvement and motivation.	Teachers who receive support from experienced colleagues stay longer on the job. Teachers receive support and assistance in their professional development, promoting their sense of competence and wellbeing. Mentoring creates opportunities for learning, both in new teacher groups and in mixed groups. Such environments encourage reexamination of the teachers' beliefs, presuppositions and educational vision. Learning communities of new teachers create social groups that allow them to discuss shared challenges.	Optimal, need-supportive mentoring promotes teachers' autonomous motivation and self-determination. Autonomous motivation, in turn, promotes investment in the school and the community. Autonomy-supportive mentoring contributes to optimal experiences and wellbeing and reduces burnout. According to research, autonomously motivated teachers support their students' autonomy, which affects the students' motivation and investment (Roth et al., 2007). Experiences of need satisfaction are linked to teachers' sense of self-fulfillment (fulfilling the need for autonomy).

				The mixed groups allow mutual learning, in which young teachers learn from their seniors and vice versa.	

Parameters for comparison	Peer Group Mentoring -PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
4. The mentoring process and relationship					
What activities take place? What does mentoring look like?	The peer group normally meets 6-8 times in an academic year for about 1.5-2 hours. Meeting outside the school is preferred. The group determines its own plan on the first session and may choose an overarching topic for the entire academic year. The first session is dedicated to creating a contract and drafting ethical guidelines. Through narrative sharing, both mentors and mentees learn about their work and their life. Instead of transmitting knowledge, they construct new	There are several options, determined by the organization: initiation, planning and implementation of projects or educational and social plans for the school; sessions for syllabus drafting; discussions; practicing new technology.	Teacher groups (which usually contain three participants) commit to planning together a lesson and taking part in cycles of teaching, reviewing (discussion) and improving that lesson. The model promotes critical and reflective thinking about how teaching affects learning. LS is about collaborative inquiry in a safe dialogical space, which encourages risk taking and helps teachers develop new theories and insights about the way their students learn, leading to improved academic performance of	During the stages of training, internship and professional development, teachers maintain their mentoring connections with the mentor, whose roles change in line with the stage of professional development of the new teacher. Teachers are also required to participate in a variety of learning communities. Specific activities are described in the document written by the Polish team.	On the formal level: interns have weekly meetings. New teachers have 20 hours of mentoring, in a place that allows meaningful discourse. Mentoring during the internship includes four lesson observations and need-supportive feedback. The mentoring relationship models an optimal relationship that is based on trust, mutuality and need-supportive dialogue.

			students, and in turn, improved teaching. **More details - under the section of common methods.**		
Parameters for comparison	**Peer Group Mentoring -PGM**	**Reversed Mentoring**	**Lesson Study**	**CMTM**	**Autonomy-based Mentoring (SDT)**
How long does the mentoring last and when does it end?	One academic year. Mentoring ends at the end of the school year.	The model does not define a timeframe. This is decided by the organization and depends on the goals.	The length of the mentoring depends on completing the three learning cycles, which culminate with a presentation of the findings. Then a new LS goal can be determined.	180 hours, which extend over the training and about three additional years of induction (the first two stages of professional promotion).	The length of the mentoring depends on the intervention program (see the document that presents the model). In Israel, the model is implemented at Kaye College, and the Ministry of Education determines its length. Usually the mentoring extends over a school year (60 hours for interns, 20 hours for new teachers).
What is the location of the mentoring?	There are no location requirements, but it should be a peaceful and pleasant place, preferably outside the school, which allows	There are no location requirements but the school is a likely setting. Other places, especially technological spaces, are also possible.	The school where the teachers/interns are placed.	The schools where the interns practice and the new teachers work. The seminars and conferences	Mentoring sessions take place during a school day in a quiet room that enables meaningful dialogue.

	confidential discussions.			probably take place at a university and throughout the country.	
Parameters for comparison	**Peer Group Mentoring - PGM**	**Reversed Mentoring**	**Lesson Study**	**CMTM**	**Autonomy-based Mentoring (SDT)**
What is the content of the relationship or the mentoring?	Participants share their knowledge, experiences and challenges as teachers. Mentors and colleagues also learn by sharing narratives on their work and life, constructing new insights (rather than transmitting knowledge). Topics may include the following: multi-culturalism, curriculum, methods for teaching art,	Different types of content are relevant, although technology is usually one of the main areas in which young teachers have an advantage that enables them to mentor their seniors. There is also academic knowledge that young teachers bring with them, including innovative pedagogical approaches and familiarity	In this model, teachers deal with an issue that relates to their teaching or enables them to develop innovative pedagogy. The model promotes rich discussions among teachers on their discipline. The central content revolves around the following questions: how do children learn? What teaching methods promote learning and understanding? How can teaching be personalized?	The content is adjusted to the professional stage of the interns or new teachers. During the training, mentoring revolves around getting to know the school, pedagogical and didactic issues, administrative issues, relationships with students, etc. During induction, the mentoring focuses on professional, social, emotional and moral aspects of education, as well as on assessment of the new teacher as required by the promotion process.	The discourse centers on authentic experiences and events from the mentee's professional world (classroom management, pedagogical issues, etc.). The emphasis is on the mentee's experiences of belongingness, competence and autonomy, both in mentoring and in teaching. Agentic engagement and proactivity are also highlighted (see Reeve and Shin, 2020).

	math or physical education.	with other systems that can be relevant to teachers.		

Parameters for comparison	Peer Group Mentoring - PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
What is the nature of the mentor/mentee relationship?	The model nurtures egalitarian relationships. A mentor is coed a critical friend and a partner for dialogue. The mentees are active, critical and reflective. Group members are responsible for their own learning and may decide how to best utilize the support of the group. Mentors and mentees need be able to show empathic support that highlights the humanistic goals of mentoring. They are expected to be collegial, communicative, sensitive, constructive, reflective, considerate, committed, energetic, trustworthy, motivated, and interested in professional development.	In order to make the best of this model, the following points should be noted (Quast, 2011): • Both partners are committed to the process and agree on its rules. • Clear Expectations. • Motivation and curiosity for learning. • Trust is needed whenever there is new learning, which takes people out of their comfort zone. • Transparency and openness to emotions, thoughts, new	The relationship is collaborative and egalitarian. The dialogical space contributes to participants' thinking, such as in personalizing their teaching according to students' responses, which improves students' academic performance. In this nd non-hierarchical relationship, the mentor is not perceived as more knowledgeable than the mentee. In order for LS to be a useful model for new teachers, mentoring is perceived as a collegial system of learning. This means that the	Relationship is a central concept in the university's vision, according to which a dialogical, supportive community is needed in order to promote the development of new teachers, which occurs simultaneously with the growth of the experienced teachers. The mentoring is based on belief in young teachers' abilities and knowledge as equally valuable for mentors and experienced teachers. The mentoring discourse is based on a meaningful dialogue that includes mutual recognition in values, skills and competencies. The	The mentoring allows reciprocity, i.e. experiences of need satisfaction, collaborative learning, and constructing role identity (of mentor or teacher) of both partners. The mentoring process allows the mentor to get to know the mentee's subjective experience from the prism of needs (emotional, pedagogical and social) and develop together a meaningful, need-supportive dialogue. The relationship is based on trust,

Parameters for comparison	Peer Group Mentoring -PGM		Reversed Mentoring	Study Lesson	CMTM - Community Model of Teacher Mentoring	Autonomy-based Mentoring (SDT)
	The relationship is based on equality and justice (existential, epistemic and legal).		perspectives, different communication styles. • Conducting open and honest dialogue, listening, mutuality, respecting others' knowledge, equality.	mentors should change their attitudes towards professional learning and position themselves in a community of practice.	relationship is not based on interests and the person is not seen as a means to an end. The mentor is supportive and attentive to the new teacher.	creating a safe space for personal contents, flexibility and relevancy. The contents are determined together according to the mentee's needs. The mentoring is seen as a process, so that the relationship is built throughout the year.

Parameters for comparison	Peer Group Mentoring -PGM		Reversed Mentoring	Study Lesson	CMTM - Community Model of Teacher Mentoring	Autonomy-based Mentoring (SDT)
5. Mechanisms						
What organizations are involved in the mentoring? **Budgeting sources** **Public policy**	Finland has a National Network for PGM, which includes all universities and professional colleges for teachers' training. The network provides budgeting for PGM development and organizes the mentor's		Usually the mentoring is organization-internal, participated by managers and employees (in schools – new and experienced teachers).	The process takes place within schools, where communities are formed according to the needs and goals of the participants. In Israel, the Ministry of Education is involved.	The university, academic institutions, the national Ministry of Education (which assigns the ranks of promotion).	In Israel, the Ministry of Education is involved. In MITs, the participating bodies are the municipalities, Pisga centers, community centers, and various community organizations. In SDT implementation, new and experienced teachers are

training programs. Local municipalities also provide budgets.	In Israel, the Ministry of Education is involved. In MITs, the participating bodies are the municipalities, Pisga centers (centers for teachers' professional development) and various community organizations.			involved, as well as school administrators. It is recommended that the school form a leading team, assign an induction coordinator, and contact policymakers. In towns, local steering committees are involved.

Parameters for comparison	Peer Group Mentoring -PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
Who are the figures and players in the organization?	New teachers, principals, school staff members and senior teachers (as mentors). Pre service teachers or participants from specific populations (interdisciplinary team, etc.).	New and experienced teachers, a management that allows the reversal of roles.	The support of the principal and other school staff members is important.	Pre service teachers, beginning teachers, mentoring teachers, lecturers, principals.	In the mentoring circle: a mentoring teacher and a new teacher. In the wider circle: the principal, senior teachers, staff members, policymakers.
What is the structure of the mentoring (dyadic, in groups, other)? **What organizational structures support the mentoring?**	Peer group – PGM. The group forms the organizational structure that supports the mentoring.	There are several models: regular weekly hour-long meetings; a daylong session (hackathon-style); personal meetings; or	The mentoring is performed in groups, usually with three teachers, one of whom is the mentor.	There are many possibilities. Formal mentoring is dyadic, both during the training and during the internship.	Mentoring can be dyadic or in groups (PGM). In each of these patterns, the mentor need to establish an autonomy supportive

				Community mentoring includes various communities of practice (new teachers, mixed groups), communication with parents, connections with educational centers for support, etc. The university and education institutions support the mentoring.	relationship that allows the mentees to develop in their own way. The school should allocate time and place for the mentoring, so that induction and mentoring become part of the school culture. The mentor must complete a mentoring course.
An optimal size is 5-10 members, so that a fruitful discussion can take place with a variety of perspectives. About 6-8 meetings take place throughout the year, each lasting 1.5-2 hours.	collaborative projects. The mentoring can be dyadic or in groups. The support of the administrators is essential.				
Parameters for comparison	**Peer Group Mentoring -PGM**	**Reversed Mentoring**	**Lesson Study**	**CMTM**	**Autonomy-based Mentoring (SDT)**
Monitoring and supervision **assessment**	There is no supervision and monitoring, as assessment, evaluation or accreditation – are not part of the model.	As the model is based on the contribution of young employees, it is does not include assessment. Supervision depends on the organization; it does not have to be part of the model unless the participants receive payment or some other reward	The model does not include assessment. There is evaluation of the effectiveness of the teaching to better understand how students acquire knowledge, how they responded to teaching methods, and what progress they have made.	During the training stage, mentoring does not include assessment. When the teacher starts to move up in the professional ranks, the mentor participates in the teachers' assessment and provides a detailed report to the principal.	According to SDT, assessment might be considered as "Autonomy suppression" and a factor that might enhance extrinsic motivation. The recommended practice for the mentor, therefore, is to avoid monitoring and assessment, and instead, provide

		(which might be the case in organizations outside the school system).	This is not, however, assessment, as it is part of the inquiry of teaching-learning processes.		need-supportive feedback. Since in Israel the mentor is obligated to provide assessment, Kaye College has developed a feedback-based, autonomy-supportive evaluation of new teachers.
Parameters for comparison	**Peer Group Mentoring - PGM**	**Reversed Mentoring**	**Lesson Study**	**CMTM**	**Autonomy-based Mentoring (SDT)**
What challenges does the model face?	Time management, commitment of participants and difficult group dynamics. On the organizational level, support from the administrators is crucial. PGM is not recognized for professional development and is not regulated by any legislation or collective agreement. Because of the lack of formal recognition, the budgets are insufficient and the number of mentoring teachers is low.	The model requires that organizations change their approach toward the abilities and positioning of their employees. It also requires organization-wide preparation of the management and senior employees. In schools, interns walk into a complex system and must deal with its organizational, bureaucratic and	In order for the model to be effective, it must be deeply embedded into the school culture. Thus, LS need to be supported by educational leaders who understand it and are committed to it. It is important for participating teachers to dedicate time and resources to	This point is not addressed in the document, but it can be inferred that the challenge is in the fact that many figures and bodies participate in the mentoring over several years, which requires resources of time, money and professional skills.	Facilitators and mentors need to complete special training. Need-supportive mentoring requires a need – supportive environment in the school systemic level. The schools must create mechanisms to promote a school induction culture, such as an induction coordinator and a leading team.

	Teachers do not receive any payment. In Finland, there are few induction programs. The commitment of local municipalities differs across the country and there is no nationwide consistency.	academic aspects, while communicating with students, parents and colleagues. Some interns may feel that the situation is challenging enough without having to mentor other teachers.	learning the model and implement it officially it (Beida et al., 2015). Some scholars believe that using LS methods early on in the teaching career may be too demanding, as it challenges traditional approaches to teaching and to mentoring.		In schools belonging to a collectivist culture, the frontal and authoritative teaching style often affects the mentoring style. Thus, there need to be systematic efforts to change attitudes – from a traditional view of mentoring to an autonomy-supportive one.

Parameters for comparison	Peer Group Mentoring -PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
6. Mentors' training					
What is the length and structure of the training?	One academic year. The training is done through seminars, facilitation experience, and personal writing and learning. Five two-	Varied, depending on the model selected.	A training process is not mentioned, but it is emphasized that teachers should be trained both in model-specific methods and in the process of changing	The mentors' training program is not described.	In Israel, the training is two years long, as per the guidelines of the Ministry of Education. Other SDT-based mentoring

	day seminars (10 days).		attitudes and stances about the positioning of the mentor and his relationship with the mentee (which should be based on mutuality and equality).		programs around the world determine their own training protocol (**see the document about the model**).
Who trains the mentors?	A national PGM network that organizes the training program and determines which institutions will lead it (autonomously). The programs are run by educators, scholars, experts in relevant fields, guest lecturers, mentors, educational philosophers, and experts on communication and social interactions.	This depends on the chosen work model. It is important that the management is involved.	It is supposed to be a school-internal process.	The mentors' training program is not described.	In Kaye College, the training is done by the SDT-based Induction Unit. The facilitators are trained by the college's mentoring coordinator. **See the document that presents the model.**
Parameters for comparison	**Peer Group Mentoring -PGM**	**Reversed Mentoring**	**Lesson Study**	**CMTM - Community Model of Teacher Mentoring**	**Autonomy-based Mentoring (SDT)**
What topics does the training cover?	The training introduces the model, focusing on the role of the	The emphasis is on changing stances and attitudes regarding learning processes, mentoring,	The group structure, model-specific learning and inquiry	The mentors' training program is not described.	The facilitators complete a specialized, SDT-based training,

What skills are taught? **What process is emphasized?**	mentor as a group facilitator. The training programs also introduce theoretical background and group work methods. As part of their training, the mentors organize and facilitate a group. The training includes interactive and constructive learning methods to promote social learning in groups. The content includes interactions in work communities, collegiality in learning, constructivism, implicit knowledge, identity construction through narratives, professional ethics in education and more. The mentors write portfolios around the	and positioning in the organization. Research-based recommendations include organizational preparation and staff training. The managers' approval and personal example is crucial. The mentors and mentees should understand the advantages of the role reversal for both parties. Pre-mentoring training mostly includes skills such as feedback, dialogue and communication skills. Important mechanism: incorporating weekly mentoring sessions into the schedule, scheduling, role definitions and system adaptations.	processes and its specific stages. Ways to conduct a meaningful dialogue, collaborate, and create a safe motivational space for teamwork and collaborative learning.	The needed skills are presented above.	which focuses on constructing their professional identity as they deal with issues relevant to their professional world. A parallel training takes place in the courses themselves, in which the facilitators train the mentors. The mentors' training is done in a need-supportive environment that encourages exploration (Kaplan, Glassner & Adas, 2016). The workshops includes need-supportive practices. The training takes a spiral approach, extending over two years. The process enables participants to

Parameters for comparison	Peer Group Mentoring -PGM	Reversed Mentoring	Lesson Study	CMTM	Autonomy-based Mentoring (SDT)
	practicum and learning.				delve into the topics and acquire skills that are relevant for need-supportive mentoring.

			7. Common practices / examples		
Examples of practices	Forming a group and inviting teachers to participate, facilitating a discussion. Practices relating to creating a contract and maintaining ethics. Mentors and colleagues share narratives of their work and life and construct insights together, rather than transmitting knowledge. The narratives describe personal experiences and may be written	The central practice is role reversal. The nature of the mentoring varies per the organization and the selected model: face-to-face or online meetings, dyadic or group work, unidirectional (the new employee as the mentor, the senior employee as the mentee) or bidirectional (the roles are changing between the participants). Role reversal may cause confusion and uncertainty, thus it requires continued dialogue, mutual respect and patience. The main point is the willingness of the mentor to accept the	LS includes three cycles of inquiry-based learning with 10 stages. The group of teachers (usually three) commit to planning an 'inquiry lesson' together. They choose a topic, select students to observe, plan the lesson, and then they each teach that lesson while the others observe. Each stage culminates with an interview of the students and a discussion. After each such learning-inquiry cycle, the findings are discussed. The post-	The main practices mentioned in the article relate to dialogue, establishing communities of practice in various models, and emphasis on mentoring relationship. The Polish team's document lists frameworks for community mentoring, including the following: Community-based mentoring experiences – mentoring of	The mentoring courses focus on familiarity with SDT and its central concepts (through reading and personal experiences). The practices are based on the theory and findings from studies that examined need-support behaviors. The teachers learn how to support mentees' needs. The courses teach and implement specific methods

or oral. Drawing, stage performance, music and other arts may also be incorporated. Group members discuss their authentic experiences and express personal opinions. The facilitator guides experiential exercises to promote discussion and learning. Specific applications: collaboration with pre service teachers, interdisciplinary work, adult learning (see document).	intern's ideas as a legitimate basis for dialogue. In one of the models, called the 'Boomerang Effect', the discourse starts with the mentor's idea or advice, and leads circularly back to the mentor so that he or she experiences meaningful learning. Another model describes a collaboration of interns and senior teachers to create a pool of online courses (Aydın, 2017). The interns' contribution was in technological issues while the senior teachers' expertise was in language instruction. This model can be a platform for new teachers' initiatives. Through role reversal, new teachers can introduce their special initiatives and get center stage as experts in their specialized field. MIT experience indicates that senior teachers have often adopted initiatives introduced by new teachers.	lesson analysis must start with the observation of the students' learning. Basic rules must be set at the beginning of the process regarding risk taking and the shared ownership of the lessons. Bieda et al. (2015) describe an implementation of LS with mathematics teachers in a US university. The pre service teachers employed LS with the help of mentors. The goal was to support the collaboration between the mentors and mentees. This is a variation on traditional LS. The group included two pre service teachers and a mentor.	students by pre service teachers as part of their training. Unique learning communities of new teachers (on a voluntary basis). Mentoring in communities of practice, such as: • Meetings with inspirational teachers. • Seminars for knowledge exchange. Workshops for early childhood education students and pedagogy students sharing their experiences. • Undergraduate courses in special education have led the university to run a series of national conferences for educators	for supporting each of the needs. These include active listening, empathy, reflective ability, and curiosity about the new teacher's world. A central practice focuses on motivational dialogue, which focuses on identifying the mentee's psychological needs. The group dynamic demonstrates a model for need-support and the facilitator conceptualizes the process by using the model's language. **Several examples:** **Support in belongingness**: Respecting an individual's culture

			(between 2004-2018). • Communities that integrate students, parents and teachers in the school ("three-topic mentoring").	and uniqueness, legitimizing difficulties, expressing curiosity, empathy and concern. **Support in competence**: need-supportive feedback, guidance in setting optimal goals, assistance in handling perceived failure. **Support in autonomy**: discussing authentic stories, clarifying relevancy, sharing choices, supporting exploration, discussing, values, goals, and personal interests. A central practice is encouraging initiatives by new teachers in a way that supports each of the needs.

Table 2: Implied perception of mentoring in different models
Central Paradigms

The literature on mentoring and the various models reviewed in WP1 indicate a paradigmatic change in attitude toward mentoring (Pennanen, Heikkinen, & Tynjälä, 2018). The term "paradigm" was chosen due to substantial changes that have taken place in the basic underlying assumptions in the field of mentoring. These basic assumptions constitute the basis for the research, practice in the field, and the recommendations of this report. The changes that have occurred are presented in the following table.

Table 2: Main mentoring paradigms

	Paradigm 1: Traditional mentoring (transfer)	Paradigm 2: Autonomy-based mentoring (humanistic and relational)
Main theoretical perspectives **See: Pennanen, Heikkinen, & Tynjälä, 2018**		
Learning Perspective	Behaviorism and knowledge transfer models. The mentor is an experienced professional who transfers knowledge to a colleague at the start of the latter's career. The relationship is one-directional – the mentor is a senior authoritative expert.	A social-constructivist model, modern learning theories emphasizing dialogical relationships, collaboration, and collegiality. Jointly creating and constructing knowledge through social interaction, creating meaning, mutual learning, the mentor is a critical friend, the mentee – an active, critical, reflective thinker. The relationship is mutual, joint responsibility.
Developmental Perspective	Early theories on career development and professional development (Levinson, Kram). The focus is on supporting career development, structured programs, emphasis on evaluation, supervision, and judgement. The relationship is hierarchical.	The focus: Emotional-social development and support. The peer mentoring approach emphasizes the mentor's humanistic traits as a friend who provides empathetic support, and also addresses social and psychological aspects. The relationship is lateral.

	Paradigm 1: Traditional mentoring (transfer)	Paradigm 2: Autonomy-based mentoring (humanistic and relational)
Social Perspective Socialization	The focus: Adapting to the situation. One-directional socialization of teachers to the existing school culture, adopting existing practices and outlooks at the expense of personal knowledge and interest. The mentor has a conservative approach to socialization that seeks to keep things as they are. The relationship is characterized by dictating, lecturing, and judgement.	The focus: Reculturing. Empowering beginning teachers as agents of change, active participants in renewal processes, providing opportunities for beginning teachers to contribute to and be involved in a sustainable change in the school, reverse mentoring, adapting the culture to the teachers, not the other way around. The mentors are colleagues who are supporting beginning teachers in a mutual relationship between equals, and together they influence the existing culture. The relationship is characterized as an encounter between equal agents.
Motivational Perspective	Behavior-based theories of motivation. Mentees are perceived as passive, in need of help, a receptacle. Mentoring methods are characterized by transfer of knowledge and skills about which the mentor decides, control and direction, the mentor as all-knowing. The relationship is characterized by dictating, extreme situations, autonomy suppression (Kaplan, El-Sayed, Elbadur, in press).	Self-Determination Theory, positive psychology, narrative approaches. The focus: Psychological and social processes, supporting basic psychological needs, and a need supportive environment that promotes autonomous motivation. Beginning teachers are perceived as active, with potential to act from self-determination and intrinsic motivation, partners, agents, possessing knowledge, who can contribute both to the mentoring itself and to the school. The relationship is at the center. Mentoring aimed to support the mentee's autonomy, so they carve their own path, and act in accordance with their needs.

	Paradigm 1: Traditional mentoring (transfer)	Paradigm 2: Autonomy-based mentoring (humanistic and relational)

Dominant Theories	Behaviorism and knowledge transfer models.	Social constructivism, humanistic and motivational theories, placing emphasis on emotional processes, psychological needs, developing mentor's and mentee's autonomous motivation, narrative approach, identity development, encouraging exploration.
Mentoring Structure	Dyadic mentoring, one-on-one.	Group mentoring, peer group mentoring. Social media, mentoring communities of practice. The mutuality and dialogic approaches can also be applied in a dyadic mentoring model.
Importance of Context	Emphasis on face-to-face encounters.	Allowing room for the community, the school environment (MIT), mentoring relationship supported by the principal, veteran teachers, colleagues, local community.
Nature of the Relationship	Hierarchic, one-directional, giving advice, lecturing, evaluation, supervision, judgmental. Senior authoritative expert vs. a young novice teacher.	Literal mentoring, a mutual relationship between equals, mentor and mentee have a shared interest, equal agents. Dialogical relationship, collaboration, mentor and mentee as critical partners. Faith in the mentee's potential for change and development, their strengths and knowledge, their ability to contribute to the organization despite being at the start of their professional career, the can integrate into the system on the basis of their personal strengths.

	Paradigm 1: Traditional mentoring (transfer)	**Paradigm 2: Autonomy-based mentoring (humanistic and relational)**
Mentoring focus/emphasis	Perception of professional development stages, pre-set programs (I know what's right for you), knowledge transfer, adapting to the situation/environment. Mainly knowledge and practices, cognitive emphases, pedagogical aspects, skills.	Social-emotional support, emphasis on process, providing opportunities for fast professional advancement, giving room for narrative and identity processes, emphasis on autonomy, authenticity. Social and emotional learning, SEL skills, combining pedagogical, social, emotional, and cognitive aspects according to context.

The Mentor	All-knowing, an authority, knowledge and skills expert, evaluator, judgmental.	Empathetic critical friend, places emphasis on emotional-psychological and social aspects in the mentoring, alongside cognitive and pedagogical aspects. Respects the mentee's knowledge, and enables them to develop in their own way (autonomy support).
The Mentee	Passive, responds to demands, adapts.	Active, partner, critical, reflective, presents their knowledge and strengths, autonomous, and agentic.

Preparatory activities for delivering a MIT-inspired mentoring system in Israel

WP 1.1. Elaboration of comparative report and recommendations for mentor training based on peer group mentoring and other models

- Integrated report –
Elaborated by Bucharest University Team

1. Background

Theories, policies and methodologies are at the core of mentors training in all the countries analysed. Even though the purpose of mentoring may vary between systems analysed there are some key aspects that are approached in all systems: personal support, professional development and collaboration.

Professional and personal support and development has the purpose to transform teachers into social innovators and to provide teachers with an opportunity for empowerment and growth in their professional careers. In order to achieve these purposes, mentoring processes include personal guidance, professional and emotional empowerment, professional on-site mediation for interns, providing and receiving feedback and imparting lifelong learning skills as part of professional development.

The mentor also influences the existence of an appropriate absorption culture in school and kindergarten. This culture contributes to success-enabling conditions for the interns and novice teachers as they enter the educational system.

It is also mentioned that the role of mentoring has been evolving in recent years and the areas of responsibility of the mentor are expanding and accepting additional challenges. At the end of the teaching staff's internship year and for the next two years, he is expected to learn how to act out of pedagogical judgment, apply teaching methods, become familiar with all areas of the teacher's practice including creating personal and interpersonal communication with management, teachers and parents. Therefore, partnership between stakeholders is very important and at the core of the partnership lies the notion that improving the quality of learning and instruction can be achieved solely by collaboration of all parties, the teacher training college and the field. In this manner a new space is created, and an active dialogue between theory and practice is enabled.

1.1 Theoretical approaches

College/University	Main theoretical concepts/approaches	Leading Theories/Models
Al-Qasemi College- Academic College of Education (IS)	• Mentorship • Professional traits • Personal traits • The mentor's roles • Interpersonal relations, communication • Organizational environment • Social environment • Reception culture	
Gordon Academic College of Education (IS)	• Concepts related to interpersonal communication skills, • Concepts related to problem solving models, • Soft Skills: Listening, Reflecting, Empathy, Reframing • Initiation styles, Joe Harry Windows	MBM model Lesson Study Model Self-autonomy
Hemdat Hadarom College (IS)	• Dialogue - Reflective dialogue of the mentor and the intern • Personal Empowerment • Interpersonal communication • Evaluation: formative evaluation, summative evaluation • The cycle of change and the mentor's role in the development process. • Thought patterns of teachers and educational leaders • Overt learning for teachers	Collaborative Learning Model
BEIT BERL ACADEMIC COLLEGE	• Professional development, (emotional and personal support, listening, peer assessment through observation and evidence-based feedback) • Holistic perspective • Supportive environment • Differentiation between teaching/guidance and mentoring/facilitation • transition from monologue to dialogue and multi-participant dialogue. • Linking theory and content to practice • Cultivating thought processes and developing mutual reflective skills.	

	• Creating a learning community, online learning, learning in an interim group • Co-teaching	
Kaye College	• Psychological Needs: Autonomy, Relatedness. Competence • Self-Determination • Autonomous Motivation • Exploration • Agentic Engagement, initiation, proactiveness, initiatives • Growth Challenges • Narrative Dialogue	**Self-Determination Theory** **The Narrative Approach / Appreciative Inquire**
Kibbutzim College	• pluralistic academic viewpoints • democratic citizenship • integrate arts into education	
Sakhnin College	• pedagogical component • personal component • the interpersonal component (social) • organizational component • professional development, • theoretical component • applied component • environmental component • disciplinary / disciplinary component guidance.	The human occupation model (M.O.H.O) Person Environment Occupation
LC Levinsky	role perception, mentoring, professional identity and personal identity, autonomy, well-being, self-efficacy, dialogue, reflexivity, successful integration, leadership, feedback and assessment, interpretative critical thinking, entrepreneurial thinking.	reform-minded approach
Talpiot College	• Empathic communication and feedback processes • Asking questions, dialogic discourse • Multiple interpretations and perspectives (in all cases) • Choosing between (several) problem-solving options - according to the consultee's (interns) needs • Autonomous teacher • Process insights • Mentoring as a process	**Model A** - MAKAM- a structured integrative consultation model **Model B-** Model B is based on the Orland-Barak theory **Model C** is based on Ina Fox's theory in her 2002 book which refers to the concept of "The Developing Approach"

	• Developing and Shaping Mentoring vs. Mentor as a teacher (Fox's Concepts)	
Exeter	• Social constructivism • Communities of practice • Reflective practice • Evidence based practice • Mentoring (as distinct from 'coaching')	Research-Inspired approach
Bucharest	• induction mentors distinct practice mentors • Reflective practice	
Poland		school community
Finland	• Constructivism • Integrative pedagogy • Dialogue and narrativity • Autonomy • Equity	peer-group mentoring

1.2 Requirements and process of becoming a mentor

The national policies and requirements for becoming a mentor in the systems analysed depends on the autonomy level of the educational system, If Romanian and Israelian systems are more centralized, also there are more national standards to become teachers. On the other hand, systems like the one in UK there are just some guidelines and in Finland only some recommendations.

In Israel there are national requirements of the mentor's role:

- Teaching certificate and license
- At least four years' teaching experience
- Works at least 1/3 of a fulltime job
- Is not a principal or deputy principal
- Graduate of a mentor training course or is currently enrolled in such a course
- Preference for a mentor who is currently teaching or has previously taught for at least two years the same age group as the intern is teaching
- Preference for a mentor who teaches the same discipline as the intern.

In what the process of choosing and appointing a mentor is concerned, in Israel the kindergarten supervisor or school principal choose and appoint mentors. Accordingly, responsibility for the mentor and following the mentor lies with the kindergarten supervisor or school principal. As a rule, the mentor will be part of the teaching staff of the school in which the intern is employed.

If there is no teacher in the school with sufficient seniority in the same discipline as the intern is teaching, then permission will be given for the mentor to come from a different school. This permission is given for the following disciplines: physical education, science, physics, chemistry, biology, dance, music, art and English. A kindergarten teacher who mentors an intern must be employed in a kindergarten in the same town as the intern, or in the case of a regional council, in a one of the nearby communities. It is recommended that the mentor not have too many additional duties so that he will be available to fulfil the mentor role properly.

In the Romanian context, acquiring the position of induction mentor is achieved by promoting a specific competition organized by the county school inspectorates / School Inspectorate of Bucharest. The recruitment process has two phases:

- Portfolio:
- CV, supporting documents letter of intent
- certificates of the management of the educational unit (the decision to appoint as a holder in the education system / by job, the certificate of obtaining the didactic degree I, a certificate of continuous training, the certificates of the last five years for granting the qualification);
- A practical test that consists in holding a lesson / didactic activity by the candidate and the attendance at a lesson / didactic activity that the candidate will analyse.

After passing this recruitment process, teachers are enrolled in a body called National Mentor Body that includes all the induction mentors in the country. For example, if a school does not have a mentor, it can look one up in that list and ask for a mentor from another school.

In UK, there are no national requirements and processes involved in becoming a mentor. Mentors in schools are usually appointed by the Head teacher in consultation with the teacher in question. Teachers in schools may express an interest in becoming a mentor for trainee teachers. Taking on this role is often linked to a teacher's own professional development needs and interests. A key recommendation from Sir Andrew Carter's review of initial teacher training (ITT) was for a set of non-statutory standards to be developed to help bring greater coherence and consistency to the school-based mentoring arrangements for trainee teachers. The overall aims for introducing these national standards for school based mentors were:
a.   To foster greater consistency in the practice of mentors by identifying the effective characteristics of mentoring, leading, in turn, to an improved and more coherent experience for trainees, so that they develop into effective teachers.
b.   To raise the profile of mentoring and provide a framework for the professional development of current and aspiring mentors. The contribution mentors make to their colleagues' practice will help raise standards and in turn improve the quality of teaching across the profession, leading to improved outcomes for children.
c.   To contribute towards the building of a culture of coaching and mentoring in schools.

In Finnish context, there are no strict requirements for mentors, however it is recommended that mentor would have at least few years of work experience. Also mentors may have been former group members. Teachers, who become mentors, usually have strong motivation for collaborative practices and developing their professional expertise. Teachers can enroll voluntarily when there is a open call for mentor training programme. However, teachers have to

ask the permission from their employer in order participate if the training programme is organised during their working hours.

2. Role and responsibilities (for mentors and mentees)

At a macro level, from the educational system point of view, the mentor serves as a local instructor, educational fellow, change agent, role model and assists an intern who will become a teacher in the future.

At a micro level, from the school point of view, it is expected that the mentor should be an inspirational educational figure in the personal and professional aspects. In the professional aspect the mentor is expected to have an up-to-date pedagogical knowledge, disciplinary knowledge, and be an experienced teacher and educator. Regarding inter-personal aspects, the mentor is expected to function as a counsellor, in addition to being an evaluator, and present the ability to work in collaboration with the staff. The mentor should show a respectively genuine willingness to learn from a beginning teacher. Therefore, it is important that the mentor be communicative, empathetic, with integrity, flexibility, and accessibility in order to cater to the needs of the beginning teacher. The mentor is also expected to take upon herself/himself the role of mentoring out of a perception of commitment and endeavour to guide, give and assist the beginning educator. Other essential aspects that are considered mentioning is the fact that the mentor should be attentive, inclusive mentor and professional in the field of mentoring with an ability to deal with conflicts.

Mapping all the attributes of a mentor leads us to have a wide understanding of the importance of such a specialist in the educational community. Therefore, the following assets will try to create the mentor's profile. Firstly, a mentor is a specialist who understands the value of creating a shared space where the mentoring teacher and the intern can experience professional partnership and mutual learning (a space for personal-professional growth). A mentor is always aspiring for self-growth and aims to provide support for the professional development of an intern or beginning teacher while improving and developing autonomy-supportive skills (such as non-judgmental interpersonal communication characterized by listening, dialogue, empathy, reflective ability, curiosity, inquiry, etc.). A mentor is attentive and supports the psychological needs of the mentee teacher: autonomy, belongingness and competence, while constructing a meaningful dialogical relationship. Nevertheless, a mentor is a teacher with self-awareness who understands the importance of continuously constructing a professional identity and it is oriented to exploration (curiosity and desire for self-inquiry towards personal-professional development, through a continuous process of identity construction).

When it comes to the mentor's roles the main assets are presented below.

Figure 1 Main roles of the mentor

In relation to this, it is important to present some of the most important aspects of the mentee's role in this induction programme. The mentee is expected to learn how to act out according to pedagogical measures, apply teaching methods, become familiar with all fields of the teacher's work including creating adequate personal and interpersonal communication with the administration, teachers and parents. A closer attention must be given to the fact that the mentee might be dealing with various teaching and educational events, conflicts and dilemmas in his practice, his teamwork and in his relationships with students and parents that can lead to a dissonance between the "dream of teaching" and the facts on the ground in school practice. That is why it is crucial that the mentee will receive proper support, both in developing teaching abilities/skills and in managing the emotional aspects that come with changing the professional status, such as learning to cope with the heavy workload, feelings of loneliness, failure, frustration, disappointment and burnout in the intern. Also, the mentee must be willing to invest time and effort in order to integrate in the school community by acquainting with the school's vision and educational perception, the physical layout of the school, other staff members, administrative matters, norms and behavioral codes in the kindergarten or school in the staff room and with students and their parents.

In an effort to synthetizes the key words that express optimal mentoring according to our view, we developed the word-map presented below:
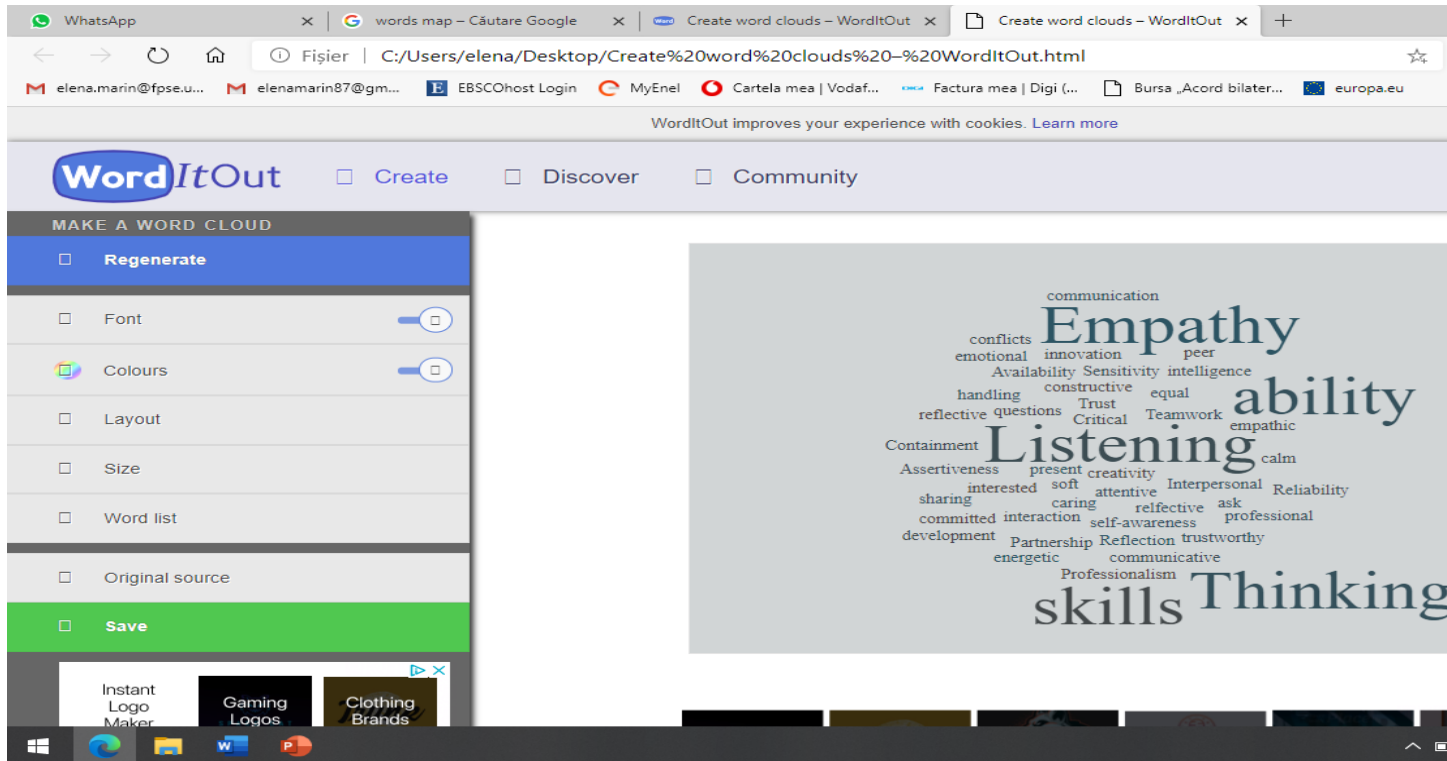
Figure 2 Key words that express optimal mentoring programme

3. Mentor Education

3.1 The profile of mentoring course facilitators

Analyzing the main characteristics describing the profile of the mentoring course facilitators, we can identify several similarities. Among these, a particular importance is given to their prior experience as group leaders, facilitators, coaches, as well as experience in the fields of psychology, counselling, group dynamics, educational advisors etc. Another characteristic refers to the facilitators' minimum five years' experience, with higher education certification (either at Bachelor, Masters or PhD level), particularly in education or behavioral sciences and a high level of expertise in the field.

One of the main differences which appears in describing the profile refers to the course facilitators' professional background – while some reports indicate prior experience as teachers, others refer to school counsellors or former administrators. For example, in Finland, course facilitators are teacher educators and educational researchers, familiar with peer-group mentoring, teacher education, teachers' professional development, educational and learning theories, mentoring and induction, or even educational philosophers, experts in communication and social interaction (for more specific themes usually as visiting lecturers).

Other aspects which are underlined in the reports refer to personal characteristics such as autonomy, motivation, involvement and engagement in continuous professional learning and facilitation, and even research.

Thus, it appears that **the ideal profile of the mentoring course facilitators** comprises:

- extensive experience in the field (+5 years);

- higher education certification in education, behavioural sciences or similar field;

- prior experience in facilitating, coaching, leading groups;

- prior knowledge and understanding of the field of education, teaching and mentoring;

- personal traits such as motivation and autonomy.

In general, facilitators/instructors participate in **professional training**, sometimes split in several stages (for example, training stage and collaborative learning). The training includes, but it is not limited to discussions, sharing, analysis, developing facilitation skills, supportive group dynamic, peer instruction. Sometimes, they can work with a co-trainer and there are also reports about a more intensive approach aimed at training new facilitators, sometimes doubled by one-to-one meetings with the program coordinator and the head of the teaching induction department (where such roles exist) and group workshops and/or simulations. Professional supervision and constant updates are also referred to in some reports.

Where such a program is already in place, sessions address theoretical aspects and studies which inform the mentors' training and practice. A good source of reliable information could be provided by the Ministry of Education's guidelines, which are also mentioned.

However, several reports indicate there is no official professional development path, but rather a focus on general professional development, which could successfully contribute to the positive results in facilitating mentoring courses. As an alternative to courses for facilitators (and even for mentors), teacher training is available in the field of mentorship.

To sum up, we can identify **two different routes in training mentoring course facilitators**:

1. As part of a study program (either Bachelor or Masters) aimed at teachers (included in teacher training) or at other education professionals.

2. As a stand-alone program, specifically tailored for mentoring course facilitators.

Either way, a combined approach appears to be favoured, usually organized in two stages which could be considered as **initial training and development training**, which comprise of:

1. Initial training – creating a foundation: theoretical aspects, research development, connecting research to practice, gaining a better understanding of teaching and mentoring, presenting existing guidelines, general skills training.

2. Development training – offering support, which is provided both by peers and by a professional supervisor. This is more of an interactive stage, based on sharing, debates, discussions, specific skills training, answering questions, sharing best practices etc.

3.2 Mentoring courses/training

As it stems from the reports on mentoring models, there are several **common goals** which can be identified for the mentoring courses/training:
- presenting the 'mentorship' concept;
- developing the perception of the mentor's role;
- developing the mentor role identity/professional identity;
- acquiring knowledge of (and skills) facilitation models;
- developing tools (for guiding, evaluating, analysing, for optimal reception cultures at schools, for pedagogical, organizational and personal development);
- developing skills (guidance, consultation, meeting, communication, reflective dialogue, management, assessment, feedback, active listening etc.);
- building a proper culture of absorption of new teachers in the education system;
- offering support (professional, psychological etc.) for developing autonomy;
- promoting exploration and personal reflection processes.

There are also several aspects which could be considered particular for specific models, but which could also be included in a general mentoring course/training:
- providing a supportive and reflective educational didactic dialogue;
- building pedagogical resilience;
- identifying the needs of beginning teachers;
- identifying mechanisms and tools for empowering beginning teachers.

To sum up, we can identify **several categories of goals** to refer to when designing a mentoring course/training, starting from theoretical aspects, to practice and skills, and on to offering constant support for empowering and for developing autonomy:
1. Sharing and building on the conceptual framework;
2. Understanding, developing and integrating the mentor's professional identity;
3. Building knowledge on the topic of mentorship;
4. Connecting theory to practice
a. Developing mentoring tools (professional, organizational, personal);
b. Developing mentoring skills (specific and transversal skills);
5. Developing tools for support (to build empowerment and autonomy).

Given that this section comprises several **topics covered** throughout the models presented in the report, these will be structured in categories, offering a potential structure for an integrated mentoring course/ training, relying on the prior experience of all partners involved in the project. Of course, this is only a suggestion, as the categories, their order and the specificity of each item can be decided in accordance to organizational needs. Also, by following the example of several partners, the training can be divided into different stages, beyond the actual courses:
1. training

2. continuous professional development
3. support
4. autonomy.

Also, the training stage can be further developed into professional learning communities, which can later become a recruitment point for facilitators.

a. Introduction
        Presenting the program
        Setting expectations
        The internship year (objective, goals, support, evaluation, observation, lessons, etc.)
b. Theoretical framework
        Conceptual framing
        Fundamentals of mentoring
        Mentorship models
        Evidence-based practice
c. Induction and orientation for the novice teacher
        Organizational integration
        Optimal reception culture
        Career development
        The world of a novice teacher
        Pedagogical/professional challenges
        Integration, accommodation and transition to professional autonomy
d. The mentor's role
        Perception of the role of the mentor
        Professional identity of the mentor
        Best practices
        Dilemmas and complexities
e. Mentoring
        Human resources management
        Coaching and mentoring
        Guidance, consultation and facilitation skills
        Communication and interpersonal skills
        Reflection and support
        Observation, evaluation, and feedback
        Personal and group supervision; teamwork
        Peer-mentoring
        Partnerships in education
f. Teaching and learning
        Collaboration between the mentor-mentee
        Didactic analysis of the lesson plan
        Learning environment
g. Organizational dimension
        Proactive involvement: school and community
        Well-being in schools

Inclusion and integration
Professional ethics

The existing mentoring models and courses make reference to a series of **skills**, which could be divided into professional skills/knowledge-based, transferable/functional skills and personal traits/ attitudes/self-management skills. Without ranking them, the most often referenced skills appear to be empathy, (self)reflection, intra and interpersonal communication skills (particularly active listening, asking questions, discourse, along with dialogical interpersonal communication), feedback, problem-solving, (self)evaluation skills, management (time, emotional, stress etc.), autonomy support, team-work.

Along these, we can also refer to optimal evaluation skills, observation, documentation, methodological competencies, psychosocial competencies. Less present, but equally important, some reports mention the ability to formulate constructive criticism, assertiveness, quick decision-making and readiness to change, coaching skills, self-efficacy and last, but not least, a good sense of humor.

It is important to note that most reports focused on transferable/functional and personal traits/attitudes/self-management skills, underlining the importance of identifying the `right` profile, beyond the professional skills/knowledge-based.

Some of the shared **principles** included in this report are built around collaborative learning, dialogue, reflection, support, shared action framework, autonomy, flexibility, adaptability, expertise, friendship, professionalism, partnership, transparency, well-being. Mentoring is seen as both a profession in itself and a lifelong learning experience throughout professional life, as well as belonging to a professional community, built on co-responsibility and commitment.

The central **values** that guide the process are easily derived from the principles and are embedded in both content and practice. The core values appear to be autonomy, partnership, respect, professionalism, trust, inclusion and mutuality.

Figure 3 Mentoring central values

Two main common aspects can be drawn in relation to the way in which the field of mentoring relates to teachers' **professional identity and career development:** the importance of the transition between being a teacher and becoming a mentor and the essential role of empowerment. Previous sections have briefly discussed the difficulties of **transitioning** from one role to another and the importance of shaping a *mentor identity*, while drawing from the teaching experience. Usually, the mentor is an experienced, senior teacher, which could imply becoming a mentor represents a recognition of one's career and expertise, offering a sense and confirmation of professional ability. Also, it implies a new role which allows the teacher to have an even more significant contribution to the school community, by leading, contributing and influencing the school's academic and social development. As a second note on the transition from one role to another, it is relevant to mention the importance of the overall view of **role perception**, an aspect included in most mentoring courses/training included in this report.

In the mentoring process, the role of **empowerment** appears to be equally important for both the mentor and the mentee. Being empowered in their new role, gaining and practicing autonomy, the mentors are better equipped to guide the interns towards these two essential components of a successful career and to a stronger professional identity.

We can also draw from the existing theoretical framework which strongly correlates career development with identity development, with the implication that the new professional role, as mentor, contributes to a re-actualization of the teachers' professional identity.

Finally, in order to better respond, in a more formalized manner, to the strengthening of the relation between mentoring-professional identity-career development, official standards could be implemented to better regulate the profession, along with raising the profile of mentors and developing a stronger culture of mentoring in schools, granting them professional recognition.

3.3 Practical aspects

While guided by similar principles and values, the partner institutions describe a variety of implemented mentorship models, underlining the importance of adapting best practices to regional, cultural, organizational particularities. However, there are several similar practices, success stories and challenges, as they will be described in the next chapter.

Some of the **general activities** within the mentoring courses/training vary from case studies, simulations, to workshops and presentations, discussion groups and peer learning, role-playing games, study tours or projects. Some institutions combine various practices, including effective close communication, discussion of dilemmas from case studies, exploring practices based on representations, simulations, constructive feedback, conducting a pedagogical dialogue, or critical reading of academic and literary texts and articles.

The main **similarities** identified in the existing models refer to the value placed on **tailored solutions**, targeted both to the schools' needs and to the mentors' personal needs (either already in place or considered as a response to the mentors' feedback). Another aspect included in the majority of the implemented mentoring models refers to **peer-learning and peer-mentoring**, underlining the importance of creating a real sense of bonding and belonging to the mentor community. Also, there appears to be a focus on both the **individual** within the group, but also on the content-process **group dynamics**, enabling the tailored response mentioned above, as well as a better facilitation within the mentoring community. Another commonality is the **integrated approach** of the mentoring models, seen in targeting all involved stakeholders (the colleges, the school, the towns, public figures, management and authorities etc.) in order to obtain their support and commitment to the development of the mentoring program.

More **particular approaches** can be identified either in the *theoretical framework* (model) guiding the mentoring process – such as, for example, the Self-Determination Theory framework (focused on group work model promoting self-determination, exploration, agentive engagement and proactivity), in *particular practices* – such as tackling a generally agreed-upon theme throughout the academic year, laying the ground for the meetings and discussions (for example, multiculturalism, curriculum work, teaching method development in a specific discipline etc.), or in the specific *values* guiding the activities (empowerment, support, autonomy, confidentiality, ethics etc.).

On a more **specific note,** several activities can be developed in order to support mentors, interns, beginning teachers and schools in the induction process and throughout the mentoring program. For example, *conferences* organized to provide evidence-based knowledge, which can later be discussed from the practice point of view in networking sessions, *workshops* for the purpose of exchanging best practices among teachers aimed at working out common solutions and

developing professional skills, as well as activities aimed at *empowering* mentors and *celebrating success*. Another aspect which could be taken into account is the *involvement of parents* in the targeted stakeholder group, as a means to help the novice teachers gain a better understanding of their students, to ensure parents' *buy-in* in supporting the mentoring program and to strengthen the partnership within the educational community.

Following-up on the above-mentioned **practices**, some of the more particular approaches mentioned by the partner institutions can be placed into three different categories: intra/interpersonal, professional and pedagogical (both related to theory and practice), as well as organizational/transversal. Below, we included a brief list of the most common practices reported by the partners.

Intra/interpersonal
Personal conversations with the intern
Paying attention to the individual (as an active observation practice)
Mirroring (practicing tolerance and value for multiple perspectives)
Exchange (creative implementation to the Other)
Guidance and direction (at the cognitive, emotional and behavioral levels)
Formative reflection on achievement and progress
Skills development (analysis, synthesis, evaluation of thinking strategies and value-oriented perspectives and insights related to the teaching/learning process)
Active listening, empathy
Constructive criticism
Teamwork
Partnership and cooperation
Professional and Pedagogical (both theory and practice)
Analysis of a real event and processing that occurs during the mentorship
Exposure to innovative models in pedagogy, accompaniment and guidance
Framework for dialogue about teaching
Demonstrations and agendas
Pupil learning story
Lesson observation form
University visiting tutor record
Work scrutiny
Critical reading of academic and literary texts and articles
Peer-group mentoring
Organizational/Transversal
Simulations
Weekly development meeting record
Need support practices
Exploration support practices
Narrative-based practices
Supervisory conferences
Meetings/mentoring groups between teacher students and working teachers
Peer-group mentoring included in the university's curriculum

Intergenerational learning
Multi-professional teams
Networking and best-practice sharing

The **connection between the practices and the views on the mentoring model** is reflected in the institutional and professional values and philosophy, as well as integrated into the teaching of the courses and the professional development of mentors. Furthermore, the connection is also operationalized through activities contributing to the development of an organizational absorption culture, through the significance attributed to the relationship between the mentor and intern, and through building a supportive professional community.

Given the diversity throughout countries and regions, it is important to also mention the way in which **the mentoring courses and training are adapted to the local context and culture**. This diversity is also reflected at the partners' institutional level (faculty, staff, advisors, mentors), which contributes to a better understanding of different views and approaches. Therefore, diversity is supported by putting into practice the traits identified above: a tailored approach, the attention to the individual and to the group dynamic, doubled by common values identified throughout the existing mentoring programs: respect, inclusion, dialogue, cooperation, tolerance, equality, diversity, acceptance and dignity. Moreover, there is a particular attention given to specific topics unique to the groups (religious, ethnic etc.), supporting flexibility, adaptability and tailoring the mentoring courses and training to the participants' background and cultural heritage. Adaptation to the local context and culture represents one important point in the work of the facilitators, requiring awareness, diplomacy, cultural sensitivity and authenticity from their part particularly as some of the mentoring courses are multicultural. Besides interpersonal communication and ensuring a safe and accepting learning environment, another option for supporting diversity could be integrating and connecting the learning task and examples used in the mentoring process to the participants' experience.

4. School level impact

4.1 Effects and impacts

The contribution of the academic institutions' mentoring training process to mentors, interns, beginning teachers and schools will be briefly presented below, following these categories of stakeholders.

Following observations and feedback, **interns** have shown a positive response to the mentoring, as they were equipped with practical tools, skills (e.g. time management, management of conflicts and dilemmas etc.), participated in various school activities and programs, such as preparation days, school initiatives, parents' days, ceremonies and parties. These activities contribute to their adaptation as they start teaching. Also, their participation in the mentoring program was useful, as it enhanced mutual trust between mentor and intern.

For the **beginning teachers**, mentoring helped their better adaptation to teaching, and supported them to forge connections with students, subject teachers, parents, and other stakeholders in the school. They reported becoming more professional in teaching, having a better grasp of the subject content, and gaining increased expertise in the subject matter. Thanks to the mentoring, they also use a variety of teaching methodologies, the overall program promoting better teaching.

Mentors show satisfaction with the program, the work and their interns and consider the mentoring program as a unique contribution, specifically appreciating the toolbox provided. Also, the mentors note an increase in professionalism and one particular mention could be made in connection to the improvement noted in the mentors' formative evaluation skills. The program does not only provide support for interns and beginning teachers, but results are also visible in the mentors' own work as classroom teachers. It is also reported that mentors develop a higher sense of awareness in relation to their role and the importance of participating in the program in their career development process. The mentors' contribution goes beyond the program, as they are also the ambassadors of the College to schools.

Most **schools** offer support for integration and their cooperation is very appreciated. In some cases, the subject coordinator, who is part of the mid-level leadership, also has a key role to play in the school absorption model, alongside the school principal who is formally in charge of this process. This contributes to better communication and integration of feedback at the school level. As an interesting development, proving the direct impact of the program, some schools report curriculum adaptation (e.g. `The teacher as researcher in his class`). The implementation of the program leads to a more positive climate, developing a sense of belonging to the school and contributing to an overall organizational improvement.

Stakeholders are also positively impacted by the program, as it increases the senses of belonging and the organizational and pedagogical efficiency, both in relation to the absorption and retention of novice teachers, as well as in relation to the improvement of communication and cooperation, leading to the absorption culture becoming more and more a part of the educational institutions' agenda. On top of this, the program has fostered positive connections with local authorities and municipalities, increasing support and engagement.

Last, but not least, the **colleges** experience positive impact, particularly from strengthening the collaboration between colleges and schools, joining educational initiatives, participating at national/international conferences, experienced an increase in the number of mentors, gaining additional funding and resources, as well as joining international research collaborations, which have the potential to develop both the theoretical field, as well as mentoring practices.

Apart from drawing these conclusions from empirical observations and feedback, several **research** studies have also been designed or implemented in order to better understand the experience of mentoring, the factors influencing the process, as well as the impact on the different stakeholders. Research topics vary depending on the context of the implementation, from the reciprocal contributions of the schools and colleges, to autonomy in mentoring, diversity or the role of the mentor or absorption and integration.

Some of the existing research findings point specifically at the contribution of the Academy – Class program to student training and the college's contribution to the school, to aspects related to training decentralized educational leadership, to the importance of a need-supportive environment both in workshops for beginning teachers and in mentors' workshops, or to the relevance of autonomy support in relation to autonomous motivation and a sense of competence in mentoring. Existing research also takes into account the cultural/ethnic/religious diversity which characterizes the program, namely focusing on training, organizational and personal factors influencing the beginning teachers from Arab society in Israel or examining the connections between mental resilience and demographic, emotional-social and educational factors among beginning and specialized teachers in Arab society in Israel. Other research initiatives focused on the role of the school mentor as participant in the mentoring course and mentors' level of satisfaction, or on the absorption and integration processes of beginning teachers in the educational system.

On a particular note, the European partners (universities) also have a strong record of research on the topic. For example, research developed by the National Network for Peer-group Mentoring in Finland focuses, among other topics, on professional development, professional identity and well-being of teachers involved in PGM, as well as on the pre-requisites, benefits and challenges of PGM, or induction. In Poland, research was carried out to show the actual state of mentoring in Polish schools, the role of the mentor in relation to the young teacher. In Romania, there is currently no nation-wide research on school-level impact of mentoring, as the process is not fully implemented. Only a number of small-scale research has been carried out, and data from the Proteach project will be soon available, offering an opportunity for comparison and integrating lessons learnt within the current project.

Additional evidence supporting the impact of the training and mentoring processes can be drawn from mentors' testimonials, informal conversations with school principals, surveys, input from different stakeholders (management, administrators, inspectors, policymakers), school and towns evaluation reports, interviews, or mentors' end of year papers.

A specific topic in terms of evaluating the impact of mentoring is the comparative analysis between **incubators** and schools and communities where they are absent. The regularized mechanisms and the follow-up routines put in place in the incubators, along with the evidence of autonomy supportive mentoring, indicate the advantages brought by the program in the incubators. Even though comparative research studies have not yet been carried out, informal discussions and feedback indicate a qualitative difference in favor of the mentoring programs developed in the incubators. The above-mentioned positive impact is thus bringing an added-value for the mentoring process in schools which are part of the program.

4.2 Mentoring with the schools in mind

The connection with schools as part of the mentoring activity is done through various communication **channels**, including email and/or e-groups (particularly with regular updates and messages), regular meetings with school representatives and informal communication with the school contact person (usually, the school principal or a senior management representative). Also, school representatives usually join the workshops and the conceptual team, while school principals are also involved from the beginning, starting from the course-building process. Even though there are some **barriers** in communication, particularly due to a busy schedule, there is an overall strong connection with school administration, mentors, advisors, leading teachers, principals (also attending college seminars) and good communication. **Topics** covered during regular communication include, but are not limited to, generating new ideas and obtaining feedback, discussing mechanisms promoted within schools to enhance mentoring and sharing school successes and accomplishments.

The **mechanisms promoted within the schools in order to enhance mentoring** are **not always fully formalized**. However, there are practices in place, such as communicating with leading schools in the mentorship field and monitoring and development sessions take place within the program, to identify opportunities enhancing mentoring.

In some cases, such mechanisms are in a **planning stage**, including routine meetings with the school principal and management personnel, assigning the role of induction coordinator to the school counselor or another central staff member, establishing a leadership team that includes the school management, the induction coordinator and representatives of mentors, interns and new teachers. These will be supported by writing up a school induction plan in collaboration with the leadership, team and the mentors, interns and beginning teachers.

On the other hand, there are cases where a **professional frame is built** and planning, consulting and supporting collaboration between the mentor and school management are in place. Also, several mechanisms are implemented, such as school in-service training, organic staff meetings with the school management and mentors and cooperating teachers. These add on to the action plans, consisting of multi-dialogue, use of educational initiative, development of facilitation skills and acquisition of tools for didactic, educational, reflective, empowering dialogue, lesson observations, involvement of students in extracurricular activities. Where there is an Induction Unit already established and functional, a joint team (program-school) sets the policy, the building blocks of the workshops and the evaluation mechanisms. The mechanism includes: three staff meetings per year, feedback from school principals in the program and feedback from program coordinators.

Other approaches focus on long-term **planning**, aiming to generate a paradigm shift, whereby principles and practices underlying the various mentoring models (Peer Group Mentoring, mentoring as a profession, SDT-based mentoring, reverse mentoring and others) are integrated in the college vision and mission.

Finally, it must be mentioned that, in some cases, **partnerships with schools are part of the training** and a member of the College team (moderator), conducted meetings with the absorption teams, beginning teachers and mentors and accompanying teachers' meetings that dealt with issues of absorption, interpersonal relationships and construct a school model for

optimal absorption. At the end of the process, the model is presented and embedded in the teacher's faculty room.

The **schools' successes and accomplishments** in this context take a very visible form, ranging from cooperation, development and sustainability of the program, embedding practices at school-level, gaining more visibility and access, defining and refining new ways of working, building a community.

- **Cooperation and collaboration** between the internship moderator at the MIT and the mentor course moderator in the benefit of the intern, the real cooperation of the school principal and organizing round table seminars for knowledge sharing.
- **Development and sustainability of the program** by focusing on work with the mid-level leadership in the educational leadership throughout an entire school year, constructing a pedagogic and organizational culture, an institutional absorption model and professional mentoring processes to prevent teacher dropout and increasing organizational functioning. Also, the courses have an optimal climate, and the mentors expressed a desire to continue to specialize in the field.
- **Embedding practices at school-level** through devising common syllabi for incubators.
- **Gaining more visibility and access** by ensuring meetings of novice teachers with role-holders, regular meetings between mentor and student, as well as regular meetings between the division head, school principal, mentor and student.
- **Defining and refining new ways of working** by encouraging and supporting collaborations between mentors, by empowering novice teachers in schools, focusing on peer-learning, developing an effective professional development in an educational organization - institutional learning process and promoting a leading institutional learning community through verbal interventions.
- **Building a community,** as the mentoring language was embedded in the school and a learning community emerged.

Apart from the novelty of their new role, beginning teachers face a number of **difficulties**, some identified at a personal level, at an interpersonal level (in relation to the mentor and other staff), while others appear at an organizational/program level. At a **personal/self-management level**, there are logistic difficulties in finding time for meetings, managing expectations and a detailed definition of goals. Also, the interns themselves approach the process either with disinterest, or with full commitment, requiring an individualized and tailored approach to ensure a quality program.

In relation to the mentor, there are difficulties in coordinating the expectations of the mentor and of the student and coordinating a time for meetings between mentor-interns. Also, the heavy workload of the mentors, the lack of cooperation of some of the mentors and the lack of a meaningful relationship/trust, sometimes due to a simple incompatibility at a personal level, or change of mentor mid-year create difficulties in implementing the program. Most mentors are appointed by school principals, leaving little control over recruitment. Furthermore, there are situations where mentors do not fulfil their role, or when they are trained in a different field of expertise, making it more difficult for the mentee to fully take advantage of the experience.

At an **organizational level**, there are sometimes mixed messages that mentors and students receive from the school management, as well as difficulties in integrating initiation sessions into the school schedule. Also, where there are no written procedures, it is more difficult to find appropriate answers in due time. **At a program level:** the uncertainty regarding the students' future in the program, difficulty pursuing the career promotion path (novice teachers), and in some cases bureaucratization and formalization of the process (e.g. Poland).

There are also several categories of **challenges**, adding on to the previously identified difficulties - related to the schools, the mentors, or with other parties (such as the Ministry of Education. First, when it comes to challenges faced in relation to the **schools**, we can make reference to the lack of time, the heavy workload, significant pressure, sometimes to the lack of cooperation and initiative and to the difficulties in recruiting trainees. In this regard, one recommendation could be strengthening the engagement and communication with the head-teachers, to ensure more support.

Second, with regards to the **mentors**, they also face time constraints and a significant workload, as well as a lack of teaching practices for quality instruction. As seen in the previous chapter, most skills and the characteristics of the mentor profile underline the importance of the mentor's personal traits. However, given these challenges, the mentoring course/training could also focus on pedagogical knowledge/case-studies or best practice examples/scenarios in order to better address the mentors' needs.

Thirdly, in relation to **other parties**, some challenges can be identified in relation to the Ministry of Education, particularly the difficulty to enforce the guidelines under which mentors are obliged to attend a mentoring course as a precondition for their appointment as mentors. Also, there appears to be a need for creating an official standard for mentors and leading educational institutions, with effects on corresponding income, priority for training, institutionalizing the absorption culture, increased autonomy and flexibility.

All these impact on the overall **process**, requiring more presence and a regularized mechanism to ensure an improved partnership and better guidance.

5. Future plans

The most important aspects when it comes to further plans including the development and enhancement of the mentoring process are divided into two perspectives: the further development of the programme within the academic spectrum – by developing further research and expanding the involved stakeholders so that a wider approach can be adopted and creating stronger partnerships with the school community so that the mentoring programme will continually adapt to the needs of newly qualified teachers need, the school needs and expectations and nevertheless, the children's expectation.

When it comes to the further development of the programme within the academic spectrum, the stress will be on contining the committed towards research inspired approach to

teacher education and as a result, a continually reviewing and developing mentoring programs in all Israelian colleges and also in the current UK mentoring system.. As an example, in the UK, at the university of Exeter, some recent developments include the introduction of the Pupil Learning Story and Work Scrutiny as core tools to support the professional development and practice of our trainee teachers and specifically, their understanding of the impact of their teaching on pupils' learning.

In the European countries involved (Finland, Romania, Poland) the main challenges are related to the fact that we need to find a way to shift from project-based perspective (and project-funded) activity to a consolidated part of the compulsory educational system allocating sufficient resources and time for the professionals to engage in the mentoring activity.

Regarding the development of a stronger partnerships with the school community, more interest should be on maintaining strong partnerships with schools and school leaderships aiming to increase the number of teachers participating in mentors' courses, upgrade the mentors training programs, thus developing mentoring as life-long leaning and a profession. Moreover, university and the Ministry of education should invest more in early preparations for promoting mentor courses: advanced marketing and advertising, contacting district administrators, supervisors, and school administrators.