

A Brief History of the Peer-Group Mentoring Model in Finland: Struggling for Space in a Contested Niche

Hannu L. T. Heikkinen, Matti Pennanen, Ilona Markkanen and Päivi Tynjälä

University of Jyväskylä, Finland

Abstract: The aim of this article is to introduce and reflect on the development of mentoring in Finland as implemented in the form of the Peer-Group Mentoring (PGM) model. Firstly, the main characteristics and principles of the PGM model are introduced, after which experiences from implementing the model are analysed based on a literature review. We examine the following research questions: (1) How have the mentoring practices of newly qualified teachers developed towards the PGM model within the educational ecosystem in Finland? (2) How has the PGM model found its relational space ('ecological niche') in this ecosystem? and (3) How has PGM been experienced by mentors and mentees in terms of professional learning and well-being? Theoretically, our examination is based on an ecosystemic view: we see mentoring as an integral element of teachers' professional development, which, in turn, is an integral part of the education ecosystem. Our methodological approach is a systematic review of mentoring research in Finland over the period 2004–2019. The research material consists of policy documents, research reports, peer-reviewed articles and doctoral dissertations. Our research: (1) demonstrates how mentoring has evolved gradually from traditional one-to-one mentoring towards a reciprocal, collegial and dialogic approach; (2) shows how the PGM model has inhabited its niche in the ecosystem of education; and (3) presents how PGM has been experienced by mentors and mentees. The main challenge in applying the model is the lack of national agreement concerning the organisation of mentoring. Applying the concept of learning ecology, mentoring can be seen as

Citation of this article: Heikkinen, H. L. T., Pennanen M., Markkanen, I. & Tynjälä, P. (2020). A brief history of the peer-group mentoring model in Finland: Struggling for space in a contested niche. In K.-R. Olsen, E. M. Bjerkholt & H. L. T. Heikkinen (Eds.), *New teachers in Nordic countries – ecologies of mentoring and induction* (Ch. 5, pp. 107–128). Oslo: Cappelen Damm Akademisk. <https://doi.org/10.23865/noasp.105.ch5>

License: CC-BY 4.0.

struggling for a niche within initial teacher education and in-service training. Finding a sustainable solution for mentoring therefore requires developing the ecosystem as a whole and allowing growing space for mentoring as an integral part of the education ecosystem.

Keywords: peer-group mentoring, teacher development, professional learning, professional learning communities, Finland

1 Introduction

The aim of this article is to describe the development of mentoring practices in Finland and, through an ecosystemic lens, to examine the main research findings on mentor and mentee experiences of the peer-group mentoring (PGM) model that has been developed in Finland over the past 15 years. Mentoring is a practice that lives (or not) in a given ecological niche. This niche can be understood as a relational space between initial teacher education and a variety of practices of career-long professional development of teachers. In Finland, as in every other country, this niche is formed, enabled and constrained in special ways. On the one hand, the high quality of pre-service teacher education in Finland is widely recognised (e.g. Sahlberg, 2015). On the other hand, challenges with in-service teacher education have been acknowledged, and the need for mentoring and induction has been addressed by a number of researchers (e.g. Almiala, 2008; Aspfors, 2012; Blomberg, 2008; Heikkinen, Swachten, & Akyol, 2015; Ruohotie-Lyhty, 2011).

No clear explanation for the lack of interest in Finland in developing mentoring has been provided. However, given the high professional status of teachers in Finland and the country's excellent PISA results, there has been little interest in developing teacher induction (Bjerkholt & Hedegaard, 2008, p. 58). The high status of the teaching profession in Finland has attracted the best of the best students to teacher education, which has also been internationally acknowledged for its high academic standards (e.g. Sahlberg, 2015; Välijärvi & Heikkinen, 2012). A Master's level degree has been a requirement for teacher qualifications since 1979. Consequently, strong trust in the high level of candidates and the quality of basic teacher education has meant that little attention has been paid to the induction phase.

There is also a certain strong tradition behind this. Historically, it has not been considered necessary to smooth the path for newcomers. On the contrary, according to the traditional view dating back to the early twentieth century, new teachers had to show obedience, humility and respect for older colleagues (Launonen, 2000). The induction phase was sometimes even associated with a sort of 'newbie' bullying tradition: the newcomer was given the most difficult jobs and the worst-performing pupils. A new teacher was on probation for two years before being formally accepted for the position. It was not until 1985 that the probation years were abolished.

It took a long time before the need for support for new teachers was acknowledged, in the latter part of the twentieth century. To some extent, the introduction of mentoring was promoted by the political initiatives of the European Commission (1995, 2001, 2007 and 2010), with which the discourse on the need for mentoring gradually shifted from Europe to Finland. However, due in part to the fact that there was no shortage of teachers in Finland, the discussion was focused less on mentoring and more on developing teacher education towards career-long professional development. At the beginning of the 2000s, an evaluation of the national teacher education development programme (2002–2005) suggested that a lifelong-learning model should be applied to the development of in-service training for teachers, with different measures at different stages of teachers' careers (Piesanen, Kiviniemi, & Valkonen, 2007, p. 5). The Trade Union of Education of Finland (OAJ) strongly supported these initiatives. This understanding of teachers' professional development as a lifewide and lifelong mission became one of the guiding principles for the development of teacher education, opening up a niche for mentoring.

In this article, we introduce and reflect on the development of mentoring in Finland during the past 15 years (2005–2020). Our main focus is on the introduction of the Peer-Group Mentoring model (PGM), which was developed through pilot projects in collaboration with the Finnish Institute for Educational Research and a number of municipalities. The PGM model was further developed and disseminated by a national network representing all providers of teacher education in

Finland (eight universities and five universities of applied sciences). By 2020, approximately 900 mentors were trained in 150 municipalities. It is estimated that 2,000 educational professionals have been involved in PGM on a yearly basis (Tynjälä, Pennanen, Markkanen, & Heikkinen, 2020).

The key research questions addressed in this article are:

1. How have the mentoring practices of newly qualified teachers developed towards the PGM model within the educational ecosystem in Finland?
2. How has the PGM model found its ecological niche in this ecosystem?
3. How has PGM been experienced by mentors and mentees in terms of professional learning and well-being?

To help the reader understand what is meant by peer-group mentoring in Finland, we must first introduce some of its leading principles. The following sections address each of the research questions, starting with a brief history of mentoring and finally describing teachers' experiences of PGM. In the conclusion section, we reflect on the results and introduce a view of teacher development based on the idea of ecologies of professional learning.

2 Key features and principles of peer-group mentoring

Peer-group mentoring differs from the traditional mentoring model in a number of ways. Firstly, in traditional one-to-one mentoring, the basic assumption is that a senior or more-experienced worker transfers knowledge to a younger colleague. However, the research on mentoring shows that often the assumedly-more experienced professionals also learn from their less-experienced counterparts (Geeraerts, Tynjälä, & Heikkinen, 2018). The PGM model is therefore based on the idea that the mentor-mentee relationship is reciprocal, with each party providing something of value to the other. The PGM model is also deliberately implemented in groups comprising both novice teachers and more-experienced teachers.

The ideal group size is between five to ten members, which provides a platform where multiple views can be presented but without crowding the discussion. The peer-mentoring group usually meets six to eight times during the academic year, with each meeting lasting around one and a half to two hours. In the first meeting, the group draws up an action plan. The group can decide to devote each PGM session to a specific theme, or choose a common theme for the entire academic year, such as multiculturalism, curriculum work, or teaching method development in a specific discipline, such as the arts, physical education, mathematics, etc. The mentor serves as the facilitator of the group and is responsible for maintaining the group schedule. The mentor also leads the discussion, striving to allot speaking time equally among participants. The mentor can also propose topics and stimulate discussion through different narrative and action-based exercises (Estola, Heikkinen, & Syrjälä, 2014). Whereas in some international models participation in mentoring is compulsory for new teachers and involves assessment of the mentee, in the Finnish model participation is voluntary and no assessment is involved (Heikkinen, Jokinen, & Tynjälä, 2012, p. 16).

In its essence, PGM involves teachers in sharing and reflecting on their experiences, discussing the problems and challenges they meet in their work, listening, encouraging one another and, above all, learning together. As this kind of group activity always raises ethical questions, it is important to examine the ethical principles of PGM. The ethical basis of the group is established through collective agreement about its actions. Each PGM group is expected to agree on its own rules of practice, but all agreements must include two basic principles: confidentiality and discussion ethics. The principle of confidentiality means that disclosures made within the group are not shared outside the group, i.e., what is said in the group stays in the group. The ethical discussion principle is that the group's purpose is not to be a rumour mill where other employees' or pupils' personal affairs are debated. The group therefore agrees to avoid mentioning by name or stigmatising in any way people who are not part of the group (Heikkinen et al., 2012, pp. 16–17).

The PGM model is based on the following underlying theoretical principles:

1. Constructivism
2. Integrative pedagogy
3. Dialogue and narrativity
4. Autonomy
5. Equity

1 Constructivism

In traditional mentoring it is assumed that (tacit or explicit) knowledge is transferred from one person to another. This understanding of learning is based on the idea of *transmission of knowledge*. PGM, instead, relies on the idea of *social construction of knowledge*. Constructivism maintains that knowledge cannot be transferred between individuals, but that we always interpret new knowledge on the basis of our prior knowledge, conceptions, experiences and beliefs. Thus, the same thing can be interpreted and understood in different ways. Therefore, discussion is an essential element in creating shared understanding. Knowledge is thus not transferred, but rather we each form our own personal conceptions through social interaction. This social construction of knowledge takes place in different settings, not only in schools or educational institutions. As such, learning is not always formally recognised with grades, diplomas or certificates. In other words, human development does not happen only through *formal learning*. It can also take place through *nonformal learning* organised outside of the formal educational system, such as in the workplace. Nonformal learning is intentional, but does not lead to formal certification. Often the most neglected form of professional development, however, is *informal learning*, which is usually unintentional and takes place as a by-product of other activities in everyday settings (Merriam, Caffarella, & Baumgartner, 2007).

2 Integrative pedagogy

Founded on the constructivist perspective, PGM is based on the exchange of ideas and joint knowledge construction in which all parties learn from each other. The principle of integrative pedagogy means that different forms of knowledge are integrated in education to promote learning and

professional development (Tynjälä, 2008; Heikkinen et al., 2012). The idea of integrative pedagogy is rooted in the common requirement to combine ‘theory and practice’ in education, but implies a broader combination of forms of knowledge than just ‘theory and practice’, including:

- 1) theoretical and conceptual knowledge
- 2) practical and experiential knowledge
- 3) self-regulative knowledge
- 4) socio-cultural knowledge

(1) *Theoretical and conceptual knowledge* is formal in nature and easy to express explicitly. In everyday terms, this kind of knowledge is often referred to as ‘theory’. Theoretical knowledge is propositional and explicit; it is learned, for instance, through texts, figures, discussions or lectures. It is also abstract knowledge evolving as a result of a conscious and conceptual thought process. Theoretical knowledge is important for professional learning, but for deep learning it needs to be complemented with (2) *practical and experiential knowledge*. This knowledge is often simply referred to in everyday parlance as ‘practice’. The terms ‘know-how’, ‘skills’, ‘capacities’ and ‘competencies’ are also used to refer to practical and experiential knowledge. Although people commonly talk about ‘practice’, some form of *knowledge* is always present in the background. This knowledge is different, however, from the knowledge that can be read in books. It develops through practical experience and, consequently, it often remains intuitive, implicit, tacit and inarticulate. However, through reflective activities, such as journal writing and group discussion, it is possible to explicate and conceptualise experiential knowledge. In addition to these, though, to be able to do their job well, professionals need a third kind of knowledge, (3) *self-regulative knowledge*. This knowledge encapsulates metacognitive and reflective capacities and skills. To become a skilled professional you need to have the capacity to reflect on the factors behind your behaviour and how they affect your work. A typical feature of high-level expertise is strong self-regulation, i.e., reflective evaluation of your own actions, awareness of your strengths and weaknesses, and development of your competencies. Finally, to become a skilled expert

you also need (4) *socio-cultural knowledge*, i.e. the knowledge embedded in social practices and cultures. Every workplace and social community has its own practices and ways of acting that can be learned only by entering in and acting them out. Although these four components of expertise can be analytically distinguished from one another, typical of high-level expertise is that these forms of knowledge are closely integrated with one another. This also applies to mentoring. According to the principle of integrative pedagogy, all of these forms of knowledge are merged in the mentoring process (Heikkinen et al., 2012, pp. 24–27).

3 Dialogue and narrativity

The basic principles of constructivism and integrative pedagogy are intertwined with the principle of dialogue and narrativity. This principle is based on a common finding of mentoring research: mentors and mentees both learn in the mentoring process by sharing narratives about their work and life; instead of transferring knowledge, they construct a new understanding that neither of the parties had before (Estola et al., 2014). The dialogical, constructive and interactive character of mentoring is highlighted in terms such as *co-mentoring*, *mutual mentoring*, *collaborative mentoring*, *peer collaboration*, *critical constructivist mentoring*, *dialogic mentoring*, *peer mentoring* and *peer-group mentoring*.

According to the dialogic view, mentoring involves a reciprocal exchange of ideas and joint construction of knowledge, from which both parties learn. In a group-mentoring dialogue, all of the group members participate in verbalising their experiences by sharing their stories of what has happened to them in their daily work. In a dialogic relationship, no one has a better or more valid vision of reality – each participant in the discussion understands that their own vision is incomplete. Fundamentally, narrative is the primary mode through which we understand who we are, how we constitute our identities. Consequently, personal identity work is mostly done by constructing life narratives and, similarly, professional identity is achieved through narratives (Heikkinen et al., 2012, pp. 14–15 and 27).

4 Autonomy

The PGM model draws on the idea of professional autonomy, which can be properly understood only in the light of the high level of autonomy of the teaching profession in Finland. Compared to many of their international counterparts, Finnish teachers seem to be more self-directed and less regulated. As the concepts of autonomy and individualism are often misunderstood, it is worth taking a look at the origins of the word. ‘Autonomy’ literally means operating ‘according to laws that one has made for oneself’ (Greek *auto nomos*). As we shall explore, however, a high level of autonomy does not necessarily mean that teachers can do whatever they wish. Etymologically, the concept of autonomy comes from the Greek *auto*, meaning *self*, and *nomos*, meaning *law* or *rules*. In ancient Greece this expression was used for a town-state (*polis*) that constituted its own laws. In an autonomous *polis*, the laws were discussed and established by the citizens of that particular *polis*. In the opposite case, a town that was ruled by laws that had been constituted by another *polis* was described by the words *hetero nomos*, literally meaning that someone else (another *polis*) had constituted the laws. This is the origin of the word *heteronomy*, which is the opposite of *autonomy*. The concept of autonomy thus emphasises interaction and collective will formation in a social sphere, whereas individualism refers to action based on the will of a particular individual. Finnish peer-group mentoring draws on the idea of professional autonomy as collective will formation instead of individual will formation (Heikkinen et al., 2012, pp. 17–18).

5 Equity

Key to peer-group mentoring is the ‘peer’ concept, which refers to the parity of the parties involved. PGM is based on the presumption that the members of the group are essentially equal participants. But what does this mean, and is it actually possible? And *in what sense equal*? When examining equity in mentoring, we must ask whether we are referring to equity as associated with: (1) human beings, i.e. *existential equity*, (2) competence and knowledge, i.e. *epistemic equity*, or (3) responsibilities and duties, i.e. *juridical equity*.

Firstly, the dimension of *existential equity* refers to the human dignity of a person. From a humanistic perspective, each individual’s life has equal

value in its uniqueness. From the existential point of view, we may thus presume that the relationship between participants in a peer-mentoring group is symmetrical. Secondly, *epistemic equity* refers to knowing something or being capable of doing something. From the epistemic point of view, it is evident that some people have more knowledge, capacities or competencies than others. However, in a mentoring relationship it is essential to understand that some people will have more expertise in some fields than others, but that this disparity evens out as different fields of expertise are presented and explored. In its traditional sense, mentoring is based on an assumption that the more-experienced participant (the mentor) has more knowledge and experience. Today, however, it is understood that younger participants have competence and know-how in different areas of life that can be important contributions to successful teaching. In certain areas of life, such as social media, ICT, or inside experience of the lifeworld of young people, young employees may have superior knowledge than their more experienced co-workers. Epistemic equity thus opens up a variety of options as the relationship can be asymmetric in a variety of ways, in favour of either the mentor or the mentee. Thirdly, by *juridical equity* we refer to the formally-defined division of responsibilities, duties, and rights in the mentoring process. In formal mentoring relationships, the mentor has to assume more legal responsibility than the mentee. However, if the mentoring relationship is purely informal, juridical responsibility is less key (Heikkinen et al., 2012, pp. 19–22). The above three perspectives of equity are crystallised in the following table.

Table 3. Equity in Peer-Group Mentoring (modified from Heikkinen et al., 2012, pp. 21-22).

	Equity in terms of	Relationship between mentor and mentee in peer-group mentoring	Symbolically illustrated relationships in PGM: (M = mentor, m = mentee)
Existential equity	human dignity	symmetrical	$M = m$
Epistemic equity	knowledge, capacities and competency	asymmetrical	$M > m$
		asymmetrical	$M < m$
Juridical equity	responsibilities, duties, and rights under law	formal mentoring: asymmetrical	$M > m$
		informal mentoring: symmetrical	$M = m$

3 The historical development of peer-group mentoring in Finland

One of the key aims of this study is to describe how the mentoring practices of newly qualified teachers have developed in Finland towards the principles of peer-group mentoring described above. As noted, the concept of peer-group mentoring differs in many respects from the traditional concept of mentoring. The history of mentoring of new teachers in Finland starts, however, from a very traditional understanding of mentoring. Triggered by a series of European Commission white papers on teacher education (1995, 2001, 2007 and 2010), concerns were raised in Finland about the need to support new teachers. The Finnish Institute for Educational Research responded to these discussions by launching a set of research and development projects. The development of PGM started in Finland in the beginning of the 2000s under pilot projects funded by the Ministry of Education and Culture, the Academy of Finland and the Finnish Work Environment Fund (Heikkinen, Jokinen, & Tynjälä, 2008). A brief description of the development of mentoring in Finland is introduced in Table 4.

Table 4. Development of mentoring in Finland, 2000–2019.

	One-to-one mentoring	Group mentoring	Piloting Peer-Group Mentoring (PGM): Verme	Disseminating PGM: Osaava Verme	Trialling PGM in different fields: Verme²
Years	2000–2006	2003 =>	2006–10	2010–2017	2017–19
Location	Helsinki	Kokkola	Jyväskylä + 12 municipalities	nationwide	nationwide
Organising principles	1 experienced teacher + 1 novice teacher	1 experienced teacher + group of novice teachers	1 experienced teacher + group of novice and experienced teachers	1 experienced teacher + group of novice and experienced teachers	1 experienced professional + novice and experienced professionals

The development of mentoring started with traditional one-to-one teacher mentoring arrangements in Helsinki in the early 2000s.

Inspired by international models, some education authorities attempted to provide an experienced mentor for new teachers who were willing to participate in mentoring. However, the mentors were not remunerated or compensated in any way for this work and so, in the absence of proper incentives, it was difficult to find willing mentors. In addition, the organisation of mentoring relied on the individual interests of civil servants with no official structures in place. Consequently, this mentoring model dwindled within a few years. At the same time, mentoring was being piloted on the west coast of Finland in Kokkola. There, as in Helsinki, the first attempt was to introduce the traditional one-to-one model. In contrast to Helsinki, though, mentors were paid for their work time, thus encouraging recruitment. Nevertheless, there was a lack of experienced teachers willing to act as mentors. Due to the low availability of mentors, an experimental programme was run in which individual mentors facilitated groups of new teachers. This was done partly for economic reasons, to minimise the cost per person. However, a follow-up study of the pilot revealed other benefits of group mentoring. It was found that the new teachers participating in the group also gained significant support from one another. As a result, the Kokkola programme began developing towards more of a group-mentoring format (Heikkinen et al., 2008).

The group-mentoring approach received further support from other research, which also showed that, in addition to economic benefits, group mentoring provided significant benefits for teachers' professional development as teachers learn professionally from each other by sharing the challenges and experiences that they encounter in their work. This finding was supported by the international research literature on peer-group mentoring and professional learning communities. As a result, the Kokkola model was modified to follow more explicitly a peer-group mentoring approach (Heikkinen et al., 2008).

The peer-group-based model provided a basis for an even more systematic research and development project implemented in 2007–2010 called VERME (an acronym for the Finnish word for peer-group mentoring, '*vertaisryhmämentorointi*'). Under that project, a book (Heikkinen, Jokinen, & Tynjälä, 2010) was published in which the PGM model was

outlined and empirical experiences of the model were reported. At the same time, a national programme for teacher development called *Osaava Ohjelma* was launched by the Finnish Ministry of Education with the aim of supporting teacher development as a continuum, from initial teacher training through to induction and continuous in-service training. The programme enabled the PGM model to be scaled throughout Finland through collaboration between the universities providing teacher education and municipalities. This network provided education for mentors (8–15 ECTS credits), which was based on the aforementioned theoretical principles and included mentoring and reflection on personal experiences as a mentor. During an eight-year period, the network, consisting of all teacher education providers in Finland, trained more than 700 mentors. Then, at the beginning of the 2010s, the financial crisis hit the public sector with serious repercussions for the municipal economy. Some municipalities took measures to cut any costs that were not directly justified by law or by binding administrative guidelines. Mentoring had no legal status and was thus often regarded as an extra cost. In some municipalities, however, PGM was implemented as an integral form of in-service education. As a result, mentoring was organised in very different ways in different municipalities.

In 2015, another practice appeared in the ecological niche that proved to be a competitor to the PGM model. This new ‘species’ evolved within the educational policy of the centre-right coalition government, led by Juha Sipilä. The Sipilä Government brought in a multitude of changes to the educational sector, while simultaneously drastically cutting funding. Criticism has been raised that there was little coordination among the myriad of simultaneous reforms (Tervasmäki & Tomperi, 2018). The Sipilä Government introduced the idea of the ‘digi-leap’, which focused on rapid engagement with processes of digitalisation in all areas of society.

To implement the digi-leap policy, a Tutor Teacher Project (TTP), was launched. Despite the different profiles of the TTP and PGM models, in many municipalities the two projects were understood as serving the same purpose: peer learning and teacher mentoring. In certain official documents of the time, the task of the tutor teacher was described in

very similar terms to the ‘mentoring and tutoring’ of teachers. While the original principal aim of the TTP was to enhance the ‘digi-leap’, the aims were later broadened. From an ecosystem perspective, the models were seen as competitors in the same ecological niche from the municipal point of view. However, there was a significant difference in the funding mechanism between the two projects. The state allocated funding to universities (€ 1.1 M) for providing PGM mentor training and developing the model, and it was assumed that the municipalities would finance teachers’ participation in PGM locally at their own expense. In contrast, the funding system of the TTP was based on a model where municipalities could apply for state funding, which was directly allocated to TTP activities and covered the majority of expenses, with a total investment of € 23 M in the state budget. At the same time, the municipalities were in a difficult financial situation. It was clear that any smart municipal director of education would prioritise the TTP model in order to secure more money from the state, instead of investing the municipality’s dwindling financial resources in PGM. As a result, the number of teachers participating in peer-group mentoring decreased significantly after 2015.

However, the PGM model was still supported by the state through the Teacher Education Development Programme (2017–2020) and was chosen as one of the instruments for developing teachers’ professional learning. The model was further developed and applied to other professional fields through the *Verme*² project, which again involved all of the universities providing teacher education in Finland. The project had two interrelated objectives: (1) to continue the network’s previous efforts to develop mentoring for teachers; and (2) to experimentally develop peer-group mentoring for new target groups through new variations of the model. The first objective was achieved by training 138 new mentors over a two-year period and providing support for previously-trained mentors. The second objective, to test different versions of the PGM model, targeted (1) students in the final stage of their teacher studies, (2) managerial staff at educational institutions, (3) professionals in multiprofessional groups, (4) teachers in early-childhood education, basic education and youth workers, (5) teachers providing liberal adult education, (5) experts of

multicultural education, and (6) teachers in higher education (Pennanen, Markkanen, & Heikkinen, 2019).

The results of the experimental projects were in line with the findings of earlier research and development work, and PGM was proven as a flexible method that can be used to support professional competence and workplace well-being in various fields. However, finding enough time for PGM amid a busy working life remains a key challenge to members' commitment to PGM group activities. Further issues to be resolved include compensation of employees for their time dedicated to peer-group mentoring and finding financing models to establish the activity on a regular basis. Considering these drawbacks, it is unsurprising that participant numbers declined (Pennanen et al., 2019).

4 Experiences of the peer-group mentoring model

In this section, the experiences of mentors and mentees regarding their participation in PGM groups and the administrative arrangements of the PGM model are examined based on a literature review of 193 research publications on PGM produced during 2009–2019. The corpus included seven edited books, 21 articles in peer-reviewed journals, 25 chapters in peer-reviewed edited books (or peer-reviewed conference proceedings), 53 chapters in non-refereed edited books, 21 master's theses, three doctoral dissertations and 69 conference papers or posters. The actual review was focused on 46 peer-reviewed articles and book chapters. The publications were analysed qualitatively. The results of the review have been reported in full detail in a recent peer-reviewed article (Tynjälä et al., 2020). In this section, the main results are summarised (Table 3).

The presented findings cover the following main themes: (1) prerequisites of functional mentoring activities; (2) outcomes, benefits and implications of PGM; and (3) challenges of the model. The findings were grouped into the three categories of relevance: i) individuals and groups; ii) community and organisation; and iii) national issues.

Table 5. Summary of a review of 46 peer-reviewed studies on the Finnish Peer-Group Mentoring Model (modified from Tynjälä et al., 2020).

Main themes	Individual/group level	Organisational level	National level
Prerequisites for successful PGM practices	<ul style="list-style-type: none"> • Open and confidential atmosphere • Methods: rules and agreements for PGM group; activating methods 	<ul style="list-style-type: none"> • Administrative factors: support from the management • Physical factors: time and place 	<ul style="list-style-type: none"> • National agreements, funding
Benefits of PGM	<ul style="list-style-type: none"> • A space for sharing experiences and reflection • Empowerment • Strengthening of professional identity • New ideas and views • Enhanced motivation and well-being 	<ul style="list-style-type: none"> • Mostly indirect impact: empowered teachers as change agents • More direct impact if the teachers belong to the same organisation and PGM is adopted as a part of the strategy • A way to support teachers in the induction phase 	<ul style="list-style-type: none"> • National network • Research-based development of mentoring
Challenges	<ul style="list-style-type: none"> • Group dynamics • Time management • Commitment 	<ul style="list-style-type: none"> • Recognition of peer learning as professional development 	<ul style="list-style-type: none"> • Salary for mentors • Compensating participation in PGM in working hours • Lack of national agreement

With regard to the individual and group level findings, an open and confidential atmosphere was emphasised as a prerequisite for successful peer-group mentoring. The importance of common rules and agreements and activating methods was also revealed. The review showed highly positive results in terms of teacher well-being and professional and identity development. The main challenges identified relate to time management, participant commitment and, in a few cases, relational difficulties arising from group dynamics.

At the organisational level, our review revealed the importance of administrative and organisational support for implementing PGM. In particular, support from the management is a prerequisite for success. Benefits to the organisation were mostly indirect, although there was some evidence that teachers were empowered to act as constructive change

agents in their schools. The biggest challenge was that peer learning was not always recognised as a form of professional development. Thus, a conceptual change in terms of what is regarded as professional development is needed.

At the national level, we observed that without legislation or a national collective agreement about the principles and conditions of its activities, PGM does not have an officially-recognised status in the education system. This has made it possible for municipalities to cut spending on PGM in economically-challenging times, which is reflected in the low proportion of teachers participating in mentoring. However, a promising network has developed around the PGM model, which has not only organised mentoring and education for mentors but also produced a remarkable body of research-based knowledge about the PGM model. Altogether, research on the Finnish model of peer-group mentoring has provided a rich knowledge base on the implementation of the model and on the experiences of participants and stakeholders, which has also been widely internationally peer reviewed and published in a number of journals and presented at conferences (Tynjälä et al., 2020).

5 Conclusions

One of the key concepts of this study is the *ecological niche* of mentoring. In ecology, the niche concept refers to the relational position or function of an organism in an ecosystem of plants and animals and their non-living environment. The ecological niche describes how an organism or population responds to the distribution of resources and competitors and how it, in turn, alters those same factors. Likewise, there are niches for a variety of educational practices, like mentoring, within other educational practices (Kemmis & Heikkinen, 2012).

The ecological niche of mentoring can be determined in a number of ways. Firstly, it can be understood as a liminal space or zone, or a ‘liminal tunnel’ (Savin-Baden, 2020), between initial teacher education and the induction phase, where a student teacher achieves a new identity as a qualified teacher. Secondly, the niche of mentoring can be defined in administrative terms as a zone between universities and municipalities.

From this perspective, mentoring remains in a niche where responsibility for the professional development of teachers is administratively shifted from universities to municipalities. As in many other countries, mentoring in Finland seems to inhabit a contested niche between universities and municipalities. This niche even seems to provide 'hostile and nourishing ecological conditions' (Godfrey & Brown, 2019, p. 17). Thirdly, in terms of the different forms of learning, this niche of mentoring can be interpreted as an intermediate state that intervenes between formal, non-formal and informal learning. From this perspective, the Finnish model of peer-group mentoring has deliberately merged these different types of learning and can be described as a kind of dialectical circle of formalisation and informalisation of learning (Heikkinen et al., 2012, p. 7). The strength of this is the seamless integration of different forms of learning. Its weakness, however, is that the formal institutions of learning do not always recognise such a form of learning as a proper method of professional development, which makes it difficult to allocate funding and resources to it.

Our goal in this article has been to study how mentoring has evolved in the Finnish education ecosystem, how it has come to inhabit its ecological niche and lived and developed there, how teachers have experienced it, and how it has been administratively established. Based on our literature review, the Finnish model of PGM has proven to be a highly promising innovation in the field of professional development. However, it has been challenging to get the model to take root in most municipalities. One explanation given for this difficulty is that a new 'species', the TTP model, appeared in the same ecological niche. It has been suggested that instead of competing in the same ecological niche, these projects should be combined (Pennanen et al., 2019). More generally, there seems to be an urgent need to orchestrate projects for teacher development at a national level.

The research shows that the challenge of providing mentoring for new teachers is far from solved. The need to develop mentoring of new teachers has been addressed in the Teaching and Learning International Survey (TALIS, 2018). Finland stands out clearly from other TALIS countries in terms of the low availability of mentoring programmes

(Taajamo & Puhakka, 2019, p. 6). The TALIS survey concludes that a national solution is needed in Finland to organise induction and mentoring for new teachers and that in order to achieve a national agreement on mentoring in Finland the responsibilities of the stakeholders (municipality employers, schools, teachers' union, universities providing teacher education) have to be clarified (Taajamo & Puhakka, 2019, pp. 90–92). Similar recommendations were also made by the report on development of the attraction of teacher education in Finland (Heikkinen et al., 2020) as well as by the teacher educators who were involved in the PGM model (Pennanen et al., 2019, pp. 7–8): that broad-based social deliberation is needed to find the best ways to develop the induction of new teachers in the Finnish ecosystem of education. A sustainable solution can only be found through developing the ecosystem as a whole, and mentoring needs to be seen as an integral part of the education ecosystem.

References

- Almiala, M. (2008). *Mieli paloi muualle: Opettajan työuran muutos ja ammatillisen identiteetin rakentuminen* [I had a burning desire to get elsewhere: A change in a teacher's career and the construction of a professional identity]. [Doctoral dissertation. University of Joensuu, Joensuu, Finland].
- Aspfors, J. (2012). *Induction practices: Experiences of newly qualified teachers* [Doctoral dissertation, Åbo Akademi, Åbo, Finland].
- Bjerkholt, E., & Hedegaard, E. (2008). Systems promoting new teachers' professional development. In G. Fransson & C. Gustafsson (Eds.), *Newly qualified teachers in Northern Europe: Comparative perspectives on promoting professional development* (Research publication: Teacher education No. 4, pp. 45–75). University of Gävle, Gävle, Sweden.
- Blomberg, S. (2008). *Noviisiopettajana peruskoulussa: Aloittelevien opettajien autentisia kokemuksia ensimmäisestä opettajavuodesta* [As a novice teacher in elementary school: Authentic experiences for beginner teachers from the first year of teaching] [Doctoral dissertation, University of Helsinki, Helsinki, Finland].
- Estola, E., Heikkinen, H. L. T., & Syrjälä, L. (2014). Narrative pedagogies for peer groups. In C. J. Craig & L. Orland-Barak (Eds.), *International teacher education: Promising pedagogies (Part A)* (Advances in Research on Teaching, Vol. 22, pp. 155–172). Bingley, England: Emerald Group Publishing Limited.

- European Commission (1995). *White paper on education and training: Teaching and learning: Towards the learning society*. Brussels, Belgium: Author. Retrieved from http://aei.pitt.edu/1132/1/education_train_wp_COM_95_590.pdf
- European Commission (2001). *Making a European area of lifelong learning a reality*. Brussels, Belgium: Author. Retrieved from <https://epale.ec.europa.eu/en/resource-centre/content/making-european-area-lifelong-learning-reality-communication-commission-com>
- European Commission (2007). *Improving the quality of teacher education*. Brussels, Belgium: Author. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52007DC0392&from=EN>
- European Commission (2010). *Developing coherent and system-wide induction programmes for beginning teachers: A handbook for policymakers*. Brussels, Belgium: Author. Retrieved from https://ec.europa.eu/assets/eac/education/policy/school/doc/handbook0410_en.pdf
- Geeraerts, K., Tynjälä, P., & Heikkinen, H. L. T. (2018). Inter-generational learning of teachers: What and how do teachers learn from older and younger colleagues? *European Journal of Teacher Education*, 41(4), 479–495.
- Godfrey, D., & Brown, C. (Eds.) (2019). *An ecosystem for research-engaged schools: Reforming education through research*. Abingdon, England: Routledge.
- 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* (Research publication: Teacher education No. 4, pp. 107–124). University of Gävle, Sweden.
- Heikkinen, H. L. T., Jokinen, H., & Tynjälä, P. (Eds.) (2010). *Verme: Vertaismentorointi työssä oppimisen tukena* [Verme: Peer-group mentoring for promoting learning at work]. Helsinki, Finland: Tammi.
- Heikkinen, H. L. T., Jokinen, H. & Tynjälä, P. (Eds.) (2012). *Peer-group mentoring for teacher development*. Abingdon, England: Routledge.
- Heikkinen, H. L. T., Utriainen, J. Markkanen, I., Pennanen, M., Taajamo, M., & Tynjälä, P. (2020). *Opettajankoulutuksen vetovoima* [Attractivity of teacher education]. Helsinki: Publications of the Finnish Ministry of Education and Culture.
- Heikkinen, H. L. T., Swachten, L., & Akyol, H. (Eds.) (2015). *Bridge over troubled water: New perspectives on teacher induction*. Ankara, Turkey: Pegem Academi.
- Kemmis, S., & Heikkinen, H. L. T. (2012). Future perspectives: Peer-group mentoring and international practices for teacher development. In: H. L. T. Heikkinen, H. Jokinen & P. Tynjälä (Eds.), *Peer-group mentoring for teacher development* (pp. 144–170). Abingdon, England: Routledge.

- Launonen, L. (2000). Eettinen kasvatustajattelu suomalaisen koulun pedagogisissa teksteissä 1860-luvulta 1990-luvulle [Ethical educational thinking in the pedagogical texts of a Finnish school from the 1860s to the 1990s]. [Doctoral dissertation, University of Jyväskylä, Jyväskylä, Finland].
- Merriam, S., Caffarella, R. S., & Baumgartner, L. M. (2007). *Learning in adulthood: A comprehensive guide* (3rd ed.). San Francisco, CA: Wiley.
- Pennanen, M., Markkanen, I., & Heikkinen, H. L. T. (Eds.) (2019). *Verme2 testaa: Kokemuksia vertaisryhmämentoroinnin soveltamisesta* [Verme2 testing: Experiences in applying peer mentoring]. Jyväskylä, Finland: Finnish Institute for Educational Research.
- Piesanen, E., Kiviniemi, U., & Valkonen, S. (2007). *Opettajankoulutuksen kehittämisohjelman seuranta ja arviointi*. [Monitoring and evaluating the teacher education development programme] (Tutkimuslustoiteita/Koulutuksen tutkimuslaitos No. 38). Jyväskylä, Finland: Finnish Institute for Educational Research.
- Ruohotie-Lyhty, M. (2011). *Opettajuuden alkutaival: Vastavalmistuneen vieraan kielen opettajan toimijuus ja ammatillinen kehittyminen* [First steps on the path of teacherhood: Newly qualified foreign language teachers' agency and professional development]. [Doctoral dissertation, University of Jyväskylä, Jyväskylä, Finland].
- Sahlberg, P. (2015). *Finnish lessons 2.0: What can the world learn from educational change in Finland?* (2nd ed.). New York, NY: Teachers College Press.
- Savin-Baden, M. (2020). Learning ecologies: Liminal states and student transformation. In R. Barnett & N. Jackson (Eds.), *Ecologies for learning and practice: Emerging ideas, sightings, and possibilities* (pp. 46–60). Abingdon, England: Routledge.
- Taajamo, M., & Puhakka, E. (2019). Opetuksen ja oppimisen kansainvälinen tutkimus TALIS 2018: Perusopetuksen vuosiluokkien 7–9 ensituloksia, osa 1 [International research in teaching and learning TALIS 2018: First results of basic education grades 7–9, part 1] (Raportit ja selvitykset No. 8). Helsinki, Finland: Opetushallitus. Retrieved from <https://www.oph.fi/fi/tilastot-ja-julkaisut/julkaisut/opetuksen-ja-oppimisen-kansainvalinen-tutkimus-talis-2018>
- Tervasmäki, T., & Tomperi, T. (2018). Koulutuspolitiikan arvovalinnat ja suunta satavuotiaassa Suomessa. [Value choices and the direction of education policy in 100-year-old Finland.] *niin & näin* 2/2018, 164–200.
- Tynjälä, P. (2008). Perspectives into learning at the workplace. *Educational Research Review*, 3, 130–154. <https://doi.org/10.1016/j.edurev.2007.12.001>.
- Tynjälä, P., Pennanen, M., Markkanen, I., & Heikkinen, H. L. T. (2020). Finnish model of peer-group mentoring: Review of research. *Annals of the New York*

Academy of Sciences (Special issue “Mentoring: Theoretical Background, Empirical Findings, and Practical Applications.”), 1–16. <https://doi.org/10.1111/nyas.14296>

Väljjarvi, J., & Heikkinen, H. L. T. (2012). Peer-group mentoring and the culture of teacher education in Finland. In H. L. T. Heikkinen, H. Jokinen, & P. Tynjälä (Eds.), *Peer-group mentoring for teacher development* (pp. 31–40). Abingdon, England: Routledge.

Wenger-Trayner, E., & Wenger-Trayner, B. (2011). Communities of practice: A brief introduction. Retrieved from <https://wenger-trayner.com/wp-content/uploads/2015/04/07-Brief-introduction-to-communities-of-practice.pdf>