

JYU DISSERTATIONS 593

Matti Pennanen

Practice Architectures of Peer-Group Mentoring in New Teachers' Professional Development



UNIVERSITY OF JYVÄSKYLÄ
FACULTY OF EDUCATION AND
PSYCHOLOGY

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**Practice Architectures of Peer-Group
Mentoring in New Teachers'
Professional Development**

Esitetään Jyväskylän yliopiston kasvatustieteiden ja psykologian tiedekunnan suostumuksella
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ABSTRACT

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The purpose of this study was, first, to examine Finnish peer-group mentoring practices and how they are prefigured by practice arrangements (*practice architectures*) in the Finnish educational context (*practice landscape*), based on certain historically developed notions that define the role and task of the teachers (*practice traditions*). Second, this study aimed to provide research-based knowledge for the application of peer learning to teachers' professional learning and development. This study utilises the theory of practice architectures as the theoretical framework and analytical tool. According to the theory of practice architectures, practices are enabled and constrained by cultural-discursive, material-economic, and social-political arrangements, which are specific to the site of the practice. This article-based dissertation consists of four sub-studies, of which three were interrogation of the Finnish model of peer-group mentoring, and one sub-study examined the methodological view for the conceptual investigation of peer-group mentoring. Methodologically, this dissertation represents qualitative research in the fields of teacher education and mentoring. Several datasets were utilised in this study. Empirical data in Studies 1 and 2 were collected in teachers' focus group interviews, and teachers' essay writings were gathered using the *Method of Empathy Bases Stories*. Study 3 was a review article of 46 research papers on peer-group mentoring. Study 4 was an autoethnographical investigation of the research process, and data consisted of self-reflective writings of the four research participants in Studies 1 and 2. The main findings of this study are that peer-group mentoring supports teachers' professional development and that it can be used for the induction of new teachers and for facilitating teachers' peer learning. However, the national practice architectures do not sufficiently support the organisation of mentoring in Finland. The problems lie particularly in the material-economic and social-political practice architectures, which are manifested in the absence of national funding and collective agreements as necessary conditions for the establishment of mentoring.

Keywords: peer-group mentoring, teachers, professional development, induction, practice

TIIVISTELMÄ (ABSTRACT IN FINNISH)

Pennanen, Matti

Vertaisryhmämentoroinnin käytäntöarkkitehtuurit uusien opettajien ammatillisessa kehittämisessä.

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Tutkimuksessa tarkasteltiin suomalaisen vertaisryhmämentoroinnin käytäntöjä ja niitä määrittäviä tekijöitä, käytäntöarkkitehtuureja, suomalaisessa koulutusjärjestelmässä. Tutkimuksen tavoitteena oli tuottaa tutkimusperustaista tietoa vertaisoppimisen soveltamisesta osana opettajien ammatillista oppimista ja kehittymistä. Tutkimuksessa hyödynnettiin käytäntöarkkitehtuuriteoriaa teoreettisena viitekehyksenä ja analyttisenä työkaluna. Käytäntöarkkitehtuuriteorian mukaan käytännöt mahdollistuvat ja rajoittuvat kolmenlaisten ennakkoehtojen perusteella, jotka määrittyvät paikallisesti. Näitä ovat kulttuuris-diskurssiiviset, materiaalis-ekonomiset ja sosiaalis-poliittiset ennakkoehdot. Artikkelimuotoinen väitöstyö koostui neljästä osatutkimuksesta, joista kolmen keskiössä oli suomalaisen vertaisryhmämentoroinnin tarkastelu ja yksi osatutkimuksista tarkasteli väitöstyön metodista lähestymistapaa osana vertaisryhmämentoroinnin käsitteellistä tutkimusta. Väitöstyö edustaa laadullista opettajankoulutuksen ja mentoroinnin tutkimusta. Väitöstyössä hyödynnettiin useampaa aineistoa. Osatutkimuksissa 1 ja 2 aineisto koostui opettajien pienryhmähaastatteluilta ja opettajien kirjoitelma-aineistosta, jossa hyödynnettiin eläytymismenetelmää. Osatutkimus kolme oli katsausartikkeli, jossa käsiteltiin yhteensä 46:ta tutkimusjulkaisua vertaisryhmämentorointiin liittyen. Osatutkimuksessa 4 hyödynnettiin neljän tutkijan reflektiivisiä kirjoituksia tutkimuksen prosessista, joita analysoitiin autoetnografian keinoin. Väitöstutkimuksen keskeisin havainto on, että vertaisryhmämentorointi tukee opettajien ammatillista kehittymistä ja vertaisryhmämentorointia voidaan soveltaa opettajien perehdyttämiseen, jolla tuetaan opettajien välistä vertaisoppimista. Kansallisella tasolla käytännön arkkitehtuurit eivät kuitenkaan tue riittävästi mentoroinnin järjestämistä. Keskeisimmät haasteet ovat rahoituksen järjestäminen ja kansallinen sopiminen riittävästä ehdoista mentoroinnin järjestämiseksi.

Asiasanat: vertaisryhmämentorointi, opettajat, ammatillinen kehittyminen, perehdytys, käytäntö.

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In Kinkomaa, November 27th, 2022

Matti Pennanen

LIST OF SUB-STUDIES

Study 1

Pennanen, M., Bristol, L., Wilkinson, J., & Heikkinen, H. L. (2016). What is 'good' mentoring? Understanding mentoring practices of teacher induction through case studies of Finland and Australia. *Pedagogy, Culture & Society*, 24(1), 27–53.

Study 2

Pennanen, M., Heikkinen, H. L., & Tynjälä, P. (2020). Virtues of mentors and mentees in the Finnish model of teachers' peer-group mentoring. *Scandinavian Journal of Educational Research*, 64(3), 355–371.

Study 3

Tynjälä, P., Pennanen, M., Markkanen, I., & Heikkinen, H. L. (2021). Finnish model of peer - group mentoring: Review of research. *Annals of the New York Academy of Sciences*, 1483(1), 208–223.

Study 4

Pennanen, M., Bristol, L. S., Wilkinson, J., & Heikkinen, H. L. (2017). Articulating the practice architectures of collaborative research practice. In K. Mahon, S. Francisco & S. Kemmis (Eds.), *Exploring education and professional practice*. Springer, Singapore. 201–217.

The author of this thesis has been the leading and corresponding author in Studies 1, 2, and 4. The author participated in each phase of the research: collecting, preparing, and analysing data and preparing the manuscripts of the individual articles for publication. In Study 3, the author of this thesis had a major role after the corresponding author in each phase of the study. As stated in Study 3, the authors are placed in the order of their contribution to the research. In other sub-studies, co-authors had a valuable role in advising, analysing, and interpreting the results. Study 4 was published as a chapter in a scientific book, and for that reason, the book editors organised a separate blind-review process for the proposed manuscript of the book chapter.

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1 INTRODUCTION

The transition from teacher education to working life is a critical phase for beginning teachers. International studies have shown that teacher shortages and teacher attrition are creating a problem in several European countries (e.g., Shanks et al., 2020), and one reason for this problem can be inadequate support for professional development in different phases of the teaching career. Although the shortage of teachers is not yet a major problem in Finland, there has been a notable increase in work dissatisfaction among teachers in recent years (OAJ, 2021). These challenges can be addressed with effective practices, such as mentoring, for both teacher induction and teacher retention (Ingersoll & Strong, 2011; Hobson, Ashby, Malderez & Tomlinson, 2009). Moreover, professional development can be promoted by combining formal, non-formal, and informal learning throughout the entire career, from initial teacher education to retirement, on the continuum of teacher education (Bjerkholt & Hedegaard, 2008; European Commission, 2010; Tynjälä & Heikkinen, 2011). Collaboration between many education stakeholders is needed to minimise the challenges and difficulties in the early stages of the teaching profession.

Contemporary literature on professional development has emphasised the role of collaborative and social constructivist models of support (e.g., Bickmore & Bickmore, 2010; Kemmis et al., 2014b; Richter et al., 2013). The aforementioned notion is also valid in Finland, which is the reason for the further examination of the development of the Finnish model of peer-group mentoring (PGM). Finnish education has a history of using peer learning activities to support teachers' professional development; however, a sustained nationwide model has not been achieved (Pennanen et al., 2021, pp. 15–17). PGM has proven to be a promising approach for induction practice in the Finnish educational system (Geeraerts et al., 2014). The main focus of this dissertation is to outline the architectures of PGM practices to improve the design of successful induction and mentoring for newly qualified teachers in Finland.

This study has two purposes. First, to examine Finnish PGM practices and how they are prefigured by given practice arrangements (*practice architectures*) in the Finnish educational context (*practice landscape*), based on certain historically

developed notions that define the role and task of the teachers (*practice traditions*). Second, to provide research-based knowledge for the application of peer learning to teachers' professional learning and development.

1.1 Development of peer-group mentoring in the Finnish education system

An important theoretical basis for this study is the theory of practice architecture. This theory assumes that to understand practices, we must examine the conditions under which practices evolve and develop. These conditions are formed in practice landscapes and practice traditions. The practice landscape in this case is the national context of PGM, and the practice tradition refers to the historical development of the mentoring model in the Finnish education system.

One of the leading principles of the Finnish education system is "equal opportunities and high-quality education for all" (Tirri, 2014). Based on this principle, education is free for Finnish citizens at all levels, and funded by government's financial support for public sector educational institutions. This support is allocated to municipalities, which are responsible for providing local basic education and secondary-level general education. Municipalities play a key role in administrating and providing resources for education and serving as employers for teaching staff (Tirri, 2014). Schools are mainly coordinated by local decision making, but there are also regional and national bodies that provide guidance and support for local education providers. Regional state administrative agencies provide services, such as guidance and training, for local authorities and help build up regional collaboration. At the national level, the Ministry of Education and Culture is responsible for preparing educational legislation, all necessary decisions, and its share of the state budget for the government. The Finnish National Agency for Education focuses on the national development of the education system, providing development, and information services. For example, the National Agency for Education prepares the national core curricula, which form a framework for education providers to organise education (Finnish National Agency for Education, 2018).

Another key feature of the Finnish education system is high-level teacher education. Teachers in Finland are required to have a master's degree, with the exception of early childhood education and vocational teachers. General education teachers are trained in universities, and vocational teachers have their training in teacher colleges in universities of applied sciences. Teacher education is research-based, and teacher education programmes involve pedagogical studies, guided teaching practice, and research activities. The aim is to guide students to become independent and responsible teachers and to learn self-development with the capability to solve problems and utilise the most recent research in the fields of education. After initial teacher training, teachers participate in in-service training. Minimum duration for in-service training is defined in the collective

agreement for public servants, and has commonly been three working days outside of the school days per academic year (Ministry of Education and Culture, 2016). In-service training is an opportunity for teachers to update their knowledge and further develop their competence. However, there are some weak points in the support for graduated teachers.

One of the persistent topics of the Finnish education system for the past two decades has been the lack of nationwide and systematic induction support for newly qualified teachers. There have been initiatives and attempts to create such a system; however, none of the projects have been scaled *and* sustained as national induction support. PGM has been one of the most promising projects addressing the challenge of teacher induction resulting from long-standing research and development. The phases of the development of PGM are summarised in Table 1.

Table 1. Development of mentoring in Finland 2000–2019 (Heikkinen et al., 2020).

	One-on-one mentoring	Group mentoring	Piloting PGM	Disseminating PGM	Expanding PGM
Years	2000–2006	2003	2006–2010	2010–2017	2017–2019
Location	Helsinki	Kokkola	Jyväskylä + 13 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 history of PGM in Finland started from a traditional understanding of mentoring (Heikkinen et al., 2020). European Commission white papers (1995, 2001, 2007, and 2010) on teacher education raised concerns about the need to support new teachers in Finland. The first attempts to provide systematic mentoring support for teachers took place in Helsinki in the early 2000s. New teachers who were willing to participate in the trial run were intended to be paired with an experienced teacher, a mentor. However, mentors were not provided with proper incentives or compensation, which led to difficulty in finding enough experienced teachers to serve as mentors; gradually, this project withered away. The problem was that organising one-to-one mentoring required a great number of mentors or significantly increased time resources for active mentors to meet the needs of mentees.

Around the same time, the city of Kokkola attempted to provide induction support for new teachers and started the project as traditional, one-to-one mentoring. This project also had difficulties recruiting mentors, even though experienced teachers were paid for their work time in mentoring. As a practical solution, the recruited mentors began to facilitate meetings for a group of new teachers.

This solution was made partly for economic reasons, but it turned out to be beneficial for the learning of the new teachers, as they had significant support from one another (Jokinen & Välijärvi, p. 2006). Another insight was that experienced teachers could also participate as mentees in the group and further develop their competence and teacher identity.

Research in Finland and internationally started to accumulate findings for the group-mentoring approach, which was seen as an effective form to support the professional development of teachers by sharing challenges and experiences between colleagues (Heikkinen et al., 2008, pp. 108–09). Mentoring activities in Kokkola were modified, and the focus was placed on the peer learning of new teachers with experienced colleagues. Inspired by the experiences in the city of Kokkola, the Finnish Institute for Educational Research carried out a systematic research and development project called VERME in 2007–2010. This project focused on the mentoring practice, which was named *verme* (acronym for *vertaisryhmämentorointi*, in English PGM, peer-group mentoring). Researchers in the project formed a theoretical basis for the mentoring practice, designed a mentor training programme for teachers, expanded the practical activities into several municipalities in collaboration with local education providers, and collected data about the experiences (Heikkinen, Jokinen & Tynjälä, 2010).

PGM was one approach to address the problems of teacher induction. Also Palmenia Center for Continuing Education at the University of Helsinki created a pilot programme for systematic support for newly qualified teachers during the years 2011–2013. The aim of the project was to use a mentoring model developed in the New Teacher Centre (located in California, United States) as a reference for a mentoring programme in Finland (Niemi, 2017). This pilot focused on dyadic mentoring, in which an experienced colleague provides support for a newly qualified teacher. The main findings from the pilot project were that induction is greatly needed, and successful induction requires national and local structures (Niemi, 2017, pp. 14–15). However, this pilot project did not reach a position as a national model of the mentoring programme in Finland.

The development of PGM continued when the Finnish Ministry of Education established a national development programme, ‘Osaava-ohjelma’, for teachers’ professional development. The aim of the national programme was to support teachers’ development as a continuum, from initial teacher education to induction and continuous in-service training. *Verme* was chosen as one of the nationwide projects in the programme, which made it possible to implement PGM throughout Finland (Heikkinen, Jokinen, Markkanen & Tynjälä, 2012). The aim was to create structures for mentoring with the help of project funding and activities, and to gradually shift the responsibility from the projects to the education providers. Implementation of PGM was coordinated in the Finnish Network for Teacher Induction (in Finnish, “Osaava Verme”), which included all the universities providing teacher education, municipalities, and educational stakeholders of the Finnish education system, Trade Union of Education OAJ, Association of Finnish Municipalities Kuntaliitto, and Teacher Student Union of Finland

SOOL. During an eight-year period, the network trained more than 700 mentors, who organised PGM meetings all around Finland.

Sadly, good progress was not maintained as the financial crisis hit the public sector in the 2010s. During the crisis, the Finnish government sought financial balance, which was realised as budgetary cuts in education from 2016 onwards (Hardy et al., 2021). Further, municipalities started to cut costs from activities that were not directly justified by law or binding administrative guidelines, including mentoring. Despite the dire financial situation, some municipalities integrated PGM as part of their in-service training for teachers. As a result, mentoring was organised in different ways in different municipalities. The funding in the Osaava programme was progressively reduced following the framework plan by the Ministry of Education. The programme ended in 2017.

Dissemination and development of PGM were at risk of halting, but the Ministry of Education and Culture released a new “Teacher Education Development Programme” back-to-back to the Osaava programme. The Network for Peer-Group Mentoring applied for and received funding from the Teacher Education Development Programme for the years 2017–2019. The PGM network continued the collaboration with two interrelated objectives: (1) to continue the network’s previous efforts to develop mentoring for teachers, and (2) to experimentally expand PGM for new target groups in the field of education. The network trained 138 new mentors and provided support and seminars for previously trained mentors. The network reached new target groups: (1) student teachers in the final phase of their studies, (2) managerial staff, (3) multiprofessional groups, (4) liberal adult educators, (5) experts in multicultural education, and (6) teachers in higher education (Pennanen, Markkanen & Heikkinen, 2019).

The results of the latest project were in line with earlier research and development work, and PGM has shown potential as a flexible method to support professional development and work well-being in various educational fields. Despite the positive outcomes, PGM has not been sustained as a nationwide practice in the Finnish education system. The main reasons are identified as lack of funding, lack of coordination, and lack of national agreement between educational stakeholders (Pennanen, Markkanen & Heikkinen, 2019). In some municipalities, PGM might be ongoing, but systematic and updated data about the recent situation of the implementation of PGM are not available.

1.2 Current situation of teacher induction and mentoring in Finland

At the request of the Ministry of Education and Culture, a systematic review of the development of the teacher education continuum was conducted in 2014. The review suggested a list of measures that could improve teacher induction in Finland (Heikkinen, Aho & Korhonen, 2015). According to the review, teacher induction should be viewed in the natural continuum of the pre-service training,

induction phase, and continuing professional development. Development requires coordination and collaboration among education stakeholders. An important notion is that PGM is regarded as an integral part of the induction process, along with many other activities, such as introduction to the workplace and work community, norms, and rules of the working culture, and rights and responsibilities of the profession. The review stressed that orchestration is needed to avoid diasporic implementation of practices that support teachers' professional development. PGM, as part of the induction, was regarded as a possible platform for reflection and collaboration between colleagues, and giving access to professional, social, and personal peer support.

Some of these suggested measures have been undertaken. For instance, in 2017, the Finnish Ministry of Education appointed the Teacher Education Forum to serve as an arena to discuss the issues of Finnish teacher education, which can be seen as a response to political decision makers' requirements to appoint a national body for the development of teacher education. Further, the Ministry of Education has provided project funding for universities and vocational teacher education units to develop teachers' pre-service and continuing training, which has also enabled collaboration between institutes. However, based on the external evaluation of the Forum, there are still issues that need to be addressed, which are related to coordination, evaluation, resourcing, strategic planning, and continuity of development of teacher education at the national level (Niemi et al., 2018).

At the local level, there are difficulties in implementing effective induction programmes. The results in the TALIS 2018 study (Taajamo & Puhakka, 2019) are worrying because 70% of the teachers reported that they had not participated in an induction programme in their first workplace since graduation. Based on principals' responses, 60% of schools had an official induction programme, but most induction was informal (in 94% of schools). Further, the induction has focused on introduction to general and administrative issues, and meetings with principal or experienced teacher, which can be seen as a very limited understanding of induction. A more detailed survey conducted by the Teacher Student Union of Finland - SOOL (2019) provided similar results confirming that participation and the quality of induction is not adequate. Low participation in induction in the first workplace may also be connected with the conditions of the teachers' labour market. Newly graduated teachers may end up working in consecutive periods of substitute teaching or with fixed-term contracts, which can vary from a few weeks to one academic year (Jokinen et al., 2013). Therefore, these new teachers may not have the same opportunities to participate in induction programmes in their first workplace.

The provision of mentoring programmes is also quite sparse, because 74% of the principals reported in the TALIS survey that they did not have a mentoring programme available for teachers (Taajamo & Puhakka, 2019). Moreover, a teacher survey based on the data collected in 2018 reported mixed results: 7.7% of the teachers participated in mentor training, 3.1% of the teachers had support from a mentor, and 5.8% of the teachers served as a mentor (Finnish National

Agency for Education, 2020). It is not convincing that there are more teachers working as mentors than teachers who receive support from mentors.

These findings may be explained by the fact that the provision of mentoring programmes is truly low but also that identifying mentoring practices is difficult. Since 2016, with strong strategic and financial support from the government through the Teacher Education Forum, another peer learning practice has been implemented in the Finnish education system. Tutor Teacher activities were introduced as part of the government's key projects in the New Comprehensive Education Programme (Ministry of Education, 2016), with a budget of over 30 million euros for five years. Tutor teacher activities are based on a model of collegial support and training, in which the tutor teacher has reduced the number of lesson hours to allow supporting other teachers during teaching. Tutor teachers can also organise peer training on specific themes. Tutor teacher activities are regarded more as a supporting model for in-service teachers and the development of teaching than as a model for induction. The majority of education providers have applied for funding for tutor teacher activities, providing access to a tutor teacher for almost all teachers in Finland (Pennanen et al., 2021). Over 2000 teachers have been nominated as tutor teachers, and assumably most of the teachers have participated in tutor teacher activities. Despite being widespread in Finland, the number of tutor teachers will most likely decrease, since the state's funding for the programme has ended. Project-based funding is one major factor hindering sustainable system-wide practice development, but there are also conceptual issues related to mentoring. Mentoring can be exhibited in various forms and activities but may not necessarily be named as mentoring. Mentoring is complex and multi-faceted, which is the reason for examining the concept of mentoring in more depth in the following section.

1.3 Historical background and paradigms of mentoring

In addition to the *practice traditions* within Finnish education, we must also take into account the historical factors that have influenced the development of mentoring from antiquity to the present day. Mentoring has become a part of our daily lives in one form or another (Eby, Rhodes & Allen, 2007, p.7). Commonly, the origin of mentoring derives from Homer's *Odyssey*, the famous epic poem of the ancient Greek era (Roberts, 1999). As described in the epic poem, King Odysseus entrusted his house and son Telemachus to the protection of an old friend named Mentor before leaving for the Trojan War. Based on the story, Mentor was regarded as a wise and experienced confidant who would educate the young Telemachus while his father was absent with the guidance of goddess Athene. The relationship between Mentor and Telemachus has been the inspiration for the practice and its variants, which we contemporarily perceive as mentoring. For example, Anderson and Shannon (1988, p.38) made several conclusions inspired by the character of Mentor: the mentoring relationship is *intentional, a process that is nurturing, insightful, supportive, and protective*.

Considerable and still growing interest in mentoring in many fields of society and academia has gradually turned mentoring into a contested practice with definitional and conceptual confusion (Eby, Rhodes & Allen, 2007, p. 7). Issues of the practice are partly related to the historical development of mentoring: whereas the practice has roots of thousands of years old, the word *mentoring*¹ (n) has appeared in the print context quite recently, possibly in 18th century or even later (Irby & Boswell, 2016). Therefore, mentoring as a practice is closely tied with other related concepts of developmental interaction (D'Abate, Eddy & Tannenbaum, 2003; Gordon, 1990). Exact definitional distinctions are difficult to achieve, as terms such as mentoring, tutoring, and work coaching are often used interchangeably. The usage of certain terminology can be based on commitment to a certain academic field, context of the word, or historical background. Mentoring is also organised in many forms, such as one-to-many, many-to-one, and many-to-many mentoring (Huizing, 2012), and used with prefixes such as *co-mentoring*, *formal mentoring*, or *peer mentoring* (Mullen & Klimaitis, 2021). The usage of additional words often underlines the particular focus or the form of the practice but adds to the challenge of finding the common understanding of mentoring.

Even though mentoring is a contested and ill-defined concept, there are certain parts of mentoring in which consensus is found. Generally, mentoring is suggested to be formed in the combination of relationship, development, and context (Ambrosetti, Knight & Dekkers, 2014). Jacobi (1991, p. 513) provided a more specified description by identifying components that are strongly agreed within the research literature: 1) mentoring is a helping relationship; 2) mentoring includes three broad elements: a) emotional and psychosocial support, b) assistance for career and professional development, and c) role modelling; 3) mentoring is a reciprocal relationship; 4) mentoring relationships are personal; and 5) mentors show greater experience, influence, and achievement within a particular domain in relation to their mentees. Despite these common factors, mentoring has appeared in many forms following the changes in ideological paradigms in the modern era of teacher education. Paradigms are influential in the way practices are understood and constructed. Next, these paradigms are examined more closely in the Western tradition of teacher education.

1.4 Paradigm shifts of mentoring

A paradigm shift, a term defined by Kuhn (1962), is utilised to refer to fundamental changes in basic concepts and practices. In teacher education, a paradigm can be understood “as a matrix of beliefs and assumptions about the nature and purposes of schooling, teaching, teachers, and their education that gives shape to

¹ Not to be confused with the name (n.) *Mentor*, which recorded use dates back much further: in Greek the name *Μέντωρ* is used in Homer's *Odyssey* in ca. 8th century BC, modern use of *Mentor* is traced to the book *Les Aventures de Télémaque* by François Fénelon published in 1699. According to the Oxford English Dictionary (OED Online, n.d.), the recorded use of (vb) *to mentor* in print context dates to 20th century.

specific forms of practice in teacher education” (Zeichner, 1983, p. 3). Here, the term is used to describe the development of mentoring practices through the influential changes that have emerged in teacher education. The following paragraphs will depict the ideological characterisations of mentoring practices, but understandably, they will not cover the true diversity of actual mentoring practices in the modern era of teacher education.

The conceptual and theoretical changes in education, learning, and knowledge have shaped mentoring practices throughout the centuries. Often mentoring is assumed to be associated with the idea of transferring knowledge from a senior expert to a younger novice, which through 20th century constructivist turn has evolved to an idea of reciprocal relationship in knowledge creation (Heikkinen et al., 2008, p. 109). At least two different kinds of interpretations can be depicted in the traditional view. First, the metaphor of (tacit) knowledge transmission resonates with the heritage of a master–apprentice model, in which an apprentice learns through hands-on work in the guidance of a master² (Aldrich, 1999). Zeichner (1983) used the apprentice metaphor to denote the *traditional craft* approach in teacher education, in which teaching is based on a conception of a craft. According to Zeichner (1983, p. 5), knowledge of teaching in the traditional-craft approach is accumulated by trial and error, and is to be found in the wisdom of experienced practitioners. The instructor’s professional knowledge is assumed to be tacit by nature (Polanyi, 1958; Toom, 2006), guided by common sense rather than theory, and cannot be exhaustively specified (Carr & Kemmis, 1986, p. 29). Through this approach, mentoring can be seen as a vehicle to convey “cultural knowledge”, in which mastery of a certain repertoire of technical skills is seen as necessary, but not a sufficient condition to become a good “craftsperson” of teaching (Zeicher, 1983).

The second interpretation of the traditional view is a behaviouristic orientation, which holds a metaphor of *production*, in which teaching is understood as an “applied science”, and teacher as an “executor” of the principles of effective teaching (Zeichner, 1983, p. 4). Behaviouristic teacher education is described as follows:

The knowledge, skills and competencies to be taught are those that are felt to be most relevant to teaching role as currently defined, and are specified in advance. Furthermore, the criteria by which success is to be measured are made explicit and performance at a prespecified level of mastery is assumed to be the most valid measure of teacher competence. (Zeichner, 1983, p. 4)

Contrary to the traditional-craft view, behaviouristic orientation attempts to define teacher competence and teaching explicitly and exhaustively. It also relies on a systematic approach to make the development of learning observable and measurable. Thus, mentoring becomes instructional, and the mentor’s role is to transmit scientifically verified knowledge to ensure mentees’ ability to

² The notion is a cautious remark, because the interpretation of master-apprentice model as a form of mentoring is made retrospectively and apprentice model is not the only practice that can be regarded as mentoring in the previous eras (see, for example, Gordon, 1990).

effectively implement the knowledge in their practice in line with pre-established goals (Orland-Barak, 2012, p. 18). Despite the aforementioned differences, some problematic features are shared by these two traditional orientations. Orland-Barak (2012, p. 17) made several notions of mentoring practices that follow either an apprentice or behaviouristic orientation: practices are dominantly prescriptive by nature, based on modelling and repeated behaviour, in which the mentor's role becomes to facilitate the mentees' patterns of conduct. Further, both traditional-craft and traditional-behaviouristic views assume that new teachers are introduced to the existing culture and practice of teaching through the peripheral participation and uncritical model of induction (Wang & Odell, 2007, p. 474). The traditional view faced criticism because such orientation created a passive recipient stance for those who were under attention, and over-simplified teaching into techniques and routines (Le Cornu & Ewing, 2008, p. 1801). The traditionalist view was challenged by constructivism in the mid-20th century, which also questioned the authoritarian or instructional model of mentoring (Heikkinen et al., 2008, p. 109).

Constructivism obtained many applications under different labels, which created the constructivist move in educational thinking (Geelan, 1997). Tynjälä (1999, p. 364), for instance, identified the following branches of constructivism: radical or cognitive constructivism, social constructivism, the sociocultural approach, symbolic interactionism, and social constructionism. Here, I will discuss three key concepts: cognitive constructivism, social constructivism, and critical constructivism. These concepts are not understood as discrete or consequential but are used to give more detailed attention to mentoring within the broad spectrum of constructivism.

The term constructivism is most likely derived from Jean Piaget's thinking, the researcher who was interested in the principles and mental structures of human reasoning (Applefield, Huber & Moallem, 2000, pp. 36-37; O'Loughlin, 1992, 794). Piaget's proposition was "a model to explain the relationship between mental processes and incoming information describing intellectual adaptation in terms of the dialectical balance between assimilation and accommodation" (O'Loughlin, 1992, p. 793). The idea, which is referred to here as cognitive constructivism, suggests that conceptions of knowledge are derived from a meaning-making search through an individual's own process of constructing interpretation of the experiences and resolving mental disequilibrium (Applefield, Huber & Moallem, 2000, p. 37).

The aforementioned view opened up new conceptualisations and implementations for mentoring compared to the traditional view of mentoring. Stereotypically described, the traditional view of mentoring relies on the mentor's knowledge capacity and the mentee's ability to absorb the given information (Fox, 2001, p. 25). By the cognitive constructivist move, attention shifted from the knowledge of the mentor to the mind of the learner (Hudson, 2004). This approach stresses the self-perceived needs and concerns of teachers. Different teacher education programmes began to promote psychological maturity and the reorganisation of the perceptions and beliefs of student teachers (Zeichner, 1983,

p. 4). Furthermore, teacher education was seen as a process of *becoming* instead of metaphors of *crafts* or *products*. Mentoring practices adopted a psychological and humanistic stance, in which personal growth and development were the central focus. The mentor's role was reshaped to support the cognitive development of a mentee by posing questions, giving feedback, and providing advice (Ambrosetti & Dekkers, 2010, p. 48). Communication in cognitive constructivist mentoring relationships focuses on the personal interests, values, and meanings accumulating in prior personal and professional history (Orland-Barak, 2012, p. 18).

Although the emphasis on the learner's active role is laudable, cognitive constructivism does not come without its weaknesses. Orland-Barak (2012, p. 18) described the mentor's role as 'therapist' and the mentee's role as 'patient' in mentoring that follows the personal growth orientation, which reveals a bothersome feature of such depiction. If mentoring is equivalent to 'therapy', then there is a risk that the need for help would be associated with signs of weakness or deficiency. Avoiding to expose weaknesses was particularly overriding in the era of the teacher profession circa 1960s to 1980s, in which professional autonomy was erroneously comprehended as individuality and isolation (Hargreaves & Fullan, 2000, p. 51). The dominant view was that only incompetent teachers would need help; therefore, help was not actively sought or given. Moreover, Fox (2001, p. 25) noted that if cognitive constructivism focuses on a learner's development, there is another risk of overlooking the value of the teacher's or the mentor's knowledge for learning. In a critique of Piagetian constructivism, O'Loughlin (1992) raised concerns about the ignorance of the social and historical subjectivity of the learner, the neglect of the contextually situated nature of knowing, and a restricted view on the forms of knowledge. He continued that (cognitive) constructivism does not adequately respond to essential issues of culture, power, and discourse.

Critics of cognitive constructivism argue that knowledge is socially constructed and that knowing cannot be discussed without considering the historically and socially constructed self in the process of knowing (O'Loughlin, 1992, p. 799). Often designated pioneer of modern social constructivism is Soviet psychologist Lev Vygotsky (Liu & Matthews, 2005), despite his controversial legacy due to the troubling issues in the quality and scholarly integrity of his available texts (Yasnitsky & Van Der Veer, 2015). Vygotsky's central concept was the role of social collectivity in individual learning and development, in which "learners are enculturated into their learning community and appropriate knowledge, based on their existing understanding, through their interaction with immediate learning environment" (Liu & Matthews, 2005, p. 388). This idea was further elaborated when Lave and Wenger (1991) introduced the idea of communities of practice in their seminal work *Situated learning: Legitimate peripheral participation*. The concept of communities of practice was utilised to "explore situated learning within the context of a group of individuals who share their practical experience [...] in a particular domain" (Guldborg & Mackness, 2009, pp. 528-529). In the 'communities of practice', participants' skills and knowledge are recognised in relation to different groups and networks, which may lead to their identification

as mentees within one sphere and as possible mentors or experts in another (Dominguez & Hager, 2013, p. 180). In other words, the participants' role in mentoring is not so permanently prefixed but can be interchangeable depending on the theme, context, or the social group of mentoring.

Social constructivism then invites a metaphor of *belonging* to teacher education. Belonging is not just about an individual's sense of involvement in a community. Belonging includes the dialectical interaction between the person and social, cultural, historical, and institutional settings (O'Loughlin, 1992, p. 811). For mentoring, a sense of belonging is crucial for newly qualified teachers when entering the working life and work community. Social experiences do have a major influence on teacher retention, along with the level of professional skills and knowledge (Aspfors & Bondas, 2013). Support, which includes the positive social and emotional aspects in the induction phase, is reported to increase self-confidence and well-being at work, and raise commitment to the school community (Martin & Pennanen, 2015). Belonging is also important from the point of view of recognition. Through recognition (if it is based on a person's existing abilities and skills), a person can learn about their characteristics, develop their identity, and gain feelings of relating with, and the acceptance of the other members of the social group (Huttunen & Heikkinen, 2004).

Yet, belonging is not a sufficient condition for developing professional expertise in mentoring if the view is reduced to uncritical acquisition of knowledge and modes of behaviour, exhibited in blind accordance with the norms of social interaction (Kemmis & Edwards-Groves, 2018, p. 23). Mentoring should involve rational thinking and evoke the participants' ability to reason and reflect. This leads to *critical constructivism*, in which the dominant view is the critical theory of Jürgen Habermas (1984). The main idea behind critical theory is the ability to identify negatives or distortions – injustice, for instance – and overcome these negatives through negotiations and communication to aim for mutual and reciprocal understanding in the social sphere (Taylor, 1998). The mentoring process that is able to overcome negatives can be metaphorically phrased as *empowerment*. Critical constructivist mentoring evokes critique of existing knowledge, structures, and culture with a commitment to reformation and collaborative work (Wang & Odell, 2007, p. 477). In critical orientation, the new teacher is viewed as an active agent who is aware of the origins and consequences of one's actions and of the realities prefiguring these actions (Zeichner, 1983, p. 6). A mentor is a critical friend who assists teachers in making practical judgments (Orland-Barak, 2012, p. 19).

The critical constructivist approach to mentoring does not avoid being critiqued, either. Wang and Odell (2007, pp. 477–478) argued that mentoring with critical constructivist orientation becomes a hefty process if the basis is that “all existing knowledge of teaching is ultimately problematic if it isn't the result of collaborative enquiry by every mentor and novice, without attention to novices' opportunity to access the knowledge that has been constructed, widely agreed upon, and accepted by the larger professional community.” Wang and Odell noted (2007, 478) that the critical process is not typically achieved, as both

mentors and mentees tend to focus on emotional and technical aspects of teaching in their supportive relationship even though the intention might have been to focus on, for instance, critical reflection of the teaching profession. The suggestion to discard the critical constructivist approach is *not* given, but it is advised that the focus of the critical process should be on the most meaningful issues that require reformulation.

To some extent, the critical constructivist approach also includes a reflective view of teacher education, which Zeichner (1983) referred to as an inquiry-oriented paradigm. In mentoring, the action-reflection model focuses on the theory behind the practice with a subjective notion: teachers (for example) have their personal view of theory that guides them in their practical activities, such as teaching (Tonna, Bjerkholt & Holland, 2017, p. 213). The aim of mentoring is to build up a better understanding of individuals' practice theory to justify and explain their actions. Better understanding will help teachers investigate and strengthen their professional identities. An influential example of this reflective mentoring has been the one in Norway developed by Handal and Lauvås (1983, 1990).

At this point, one might ask why attention to these different paradigmatic views is meaningful from the point of view of mentoring practices? These views might help us to reflect on mentoring practice from different standpoints and the foundations of the practice. Questions raised by these different perspectives will help teachers reflect meaningful mentoring practice in relation to their profession and professional development, for example, what tacit knowledge they can learn from each other, how to make the development of expertise visible, what personal views and values shape the understanding of learning and teaching, what teachers' identity and expertise are within their social groups, and what changes are needed to cultivate better learning and teaching. The founding assumptions of mentoring are influential in the way practices are perceived, understood, and constructed. There is also a need to understand the structures and activities of mentoring practice, which in this dissertation happens through the theory of practice architectures. This theory provides a theoretical frame for the interrogation of this dissertation study.

2 THEORETICAL BACKGROUND

2.1 Theory of practice architectures

The theoretical background of this study is twofold. First, this is a study of practices and, above all, of what allows certain types of social practices to evolve, develop, and sustain. From this perspective, *the theory of practice architectures* is introduced, which particularly helps us study how practices are enabled and constrained by the practice arrangements on the sites where these certain kinds of practices happen. Second, this study is about peer-group mentoring and to understand the nature and characteristics of this particular practice of mentoring that are uniquely developed in the Finnish education system, we need to theoretically understand the ideas behind this mentoring model.

The initial ideas of the theory of practice architectures were formulated by the Australian Professor Stephen Kemmis (e.g., 2022) and further developed in the international Pedagogy, Education, and Praxis (PEP) network. Researchers in the PEP network are interested in the nature, traditions, and conditions of educational practices and how they are understood, developed, and sustained in different national contexts and various educational settings. The investigation of educational practices emerged from a need to address the issues of bureaucratisation and de-professionalisation of education, which were eroding the moral, social, and political commitments of pedagogical practices (Edwards-Groves & Kemmis, 2015).

The theory of practice architectures offers insights into the cultural-discursive, material-economic, and social-political arrangements that shape practices and is also used as a sounding board to reflect on contemporary educational issues and site-based education development. The main concepts of the theory and their relationships are shown in Table 2.

Table 2. Theory of practice architectures (Kemmis et al., 2014a).

Practices are secured in	Intersubjective space/ medium	Practice architectures enable and constrain inter- action via
Practitioners' 'sayings' and 'thinking' (the 'cognitive')	Semantic space in the me- dium of language	Cultural-discursive ar- rangements found in or brought to a site (e.g., ideas)
Practitioners' 'doings' (the 'psychomotor')	Physical space-time in the medium of activity and work	Material-economic arrange- ments found in or brought to a site (e.g., space, time, resources)
Practitioners' 'relatings' (the 'affective')	Social space in the medium of power and solidarity	Social-political arrange- ments found in or brought to the site (e.g., role rela- tionships)
which are bundled together in the projects of practices, and the dispositions (<i>habi-</i> <i>tus</i>) of practitioners.		which are bundled together in characteristic ways in practice landscapes and practice traditions.

According to the theory of practice architectures (Table 3), practice is composed of a set of actions, *sayings* (forms of understanding), *doings* (modes of actions), and *relatings* (ways of relating), that 'hang together' in the project of a practice (Kemmis et al., 2014a, p. 31). The project of a practice encompasses (a) the intention (aim) that motivates the practice, (b) the actions (sayings, doings, and relatings) undertaken in the conduct of the practice, and (c) the ends the actor aims to achieve through the practice (Kemmis et al., 2014a, p. 155). Practices are enabled and constrained by three types of arrangements: what can be said is made possible by the cultural-discursive arrangements, what can be done is made possible by the material-economic arrangements, and how to relate to others and the world is made possible by the social-political arrangements (Kemmis & Edwards-Groves, 2018, pp. 120-121). Actions and arrangements are found in intersubjective spaces and realised through a particular medium in each space. Sayings and cultural-discursive arrangements in the *semantic space* are realised through language, doings, and material-economic arrangements in the *physical space-time* are realised through *action* and *work*, and relatings and social-political arrangements in the *social space* are realised through *power* and *solidarity* (Kemmis et al., 2014a, p. 32).

Practice architectures can sound stable and stationary; however, the theory views practices as constantly evolving through reproduction and transformation (Kemmis et al., 2014a, p. 3). Thus, the question is not about whether there should be changes but, instead, how to react to changes and shifts in the practice and practice landscapes. Theory of practice architecture aims for a sustainable change in practice through a better understanding of the practice and its' architectures. Kemmis et al. (2014a, pp. 8-9) argued that substantive, sustainable, and significant change in practices requires communicative action and commitment of the

people involved. Transformation of intersubjective spaces will endure only when people do it for themselves, individually and collectively.

The change in practice should not be just any kind but morally and ethically committed. Here, the theory of practice architecture distinguishes between *practice* and *praxis*. Practice refers to a social practice when people involved in the practice are not necessarily aware of the consequences of their actions (Kemmis & Smith, 2008). *Praxis*, by contrast, has two related views, which distinguishes it from practice. First, according to a view that is informed by the Aristotelian tradition, praxis is seen as action that is morally committed and oriented, and informed by the traditions of the field (Kemmis & Smith, 2008, p. 4). Second, *praxis* is 'history-making action' that has moral, social, and political consequences following a Marxian tradition (Kemmis et al., 2014a, p. 26). To change a practice to praxis, the moral purpose and commitment need to be expressed, and the unfolding action has to have an impact on the moral, social, and political dimensions.

Along with action, the theory of practice architectures is interested in individual capacities through the idea of dispositions. Dispositions are personally (and uniquely) developed and embodied qualities, or a structure of qualities, that are socialised and acquired through practices and that also shape the individual's ways of being proactive, reactive, and responsive to the arrangements in the site of the practice (Pennanen, Heikkinen & Tynjälä, 2020, p. 7). In the view of theory of practice architectures, dispositions include knowledge, skills, and values. Knowledge connects with sayings and cultural-discursive arrangements (in language, in semantic space), skills connect with doings and material-economic arrangements (in activity and work, in physical time-space), and values connect with relatings and social-political arrangements (in power and solidarity, in social space) (Kemmis et al., 2014a, p. 39).

Practices are viewed from a *site ontological perspective*; in other words, the theory of practice architectures is focused more on what practices are, rather than what is needed to know in order to practise them (Kemmis & Edwards-Groves, 2018, p. 124). Practices are always formed in historical and material conditions found at different sites. This notion draws attention to how practices are formed in a particular way, the specificity of the conditions, and the historical situatedness of the practice in the respective site in which practice occurs. These topics are explored through *practice traditions* and *practice landscapes* within a theoretical frame.

As mentioned, the theory of practice architectures allows for the examination of practice in particular settings and sites. Kemmis et al. (2014b), for example, utilised this theoretical frame in their multiple case study approach to identify the different mentoring practice archetypes, drawing on experiences from the sites of Australia, Sweden, and Finland. One archetype perceives mentoring as one of preparing new teachers during a process of probation so that they can meet the requirements for registration as fully qualified, autonomous members of the profession. This archetype was based on experiences in Australia. A second archetype of mentoring considers it a process of professional support and

guidance for a new teacher in which a mentor assists the mentee in the development of their professional practice in the job. These notions are based on some of the experiences in Sweden. A third archetype of mentoring captures it as a process to assist a new teacher to become a member of a professional community and to participate as equals in professional dialogue aimed at individual and collective self-development. These archetypes have distinctive arrangements and actions, which create the intention for each of the practices. In Finland, there has been an attempt to create practices and traditions for the mentoring archetype of collaborative self-development (Table 3). As the focus of this dissertation is on the development of induction practices in the Finnish education system, the theoretical and historical foundations of the Finnish model of PGM are examined.

Table 3. Practices and practice architectures for mentoring as collaborative self-development (amended from Kemmis et al., 2014b).

Practices of mentoring as collaborative self-development	Practice architectures of mentoring as collaborative self-development
<p>Examples of sayings For the mentees and mentor: Peer-group mentoring builds on sharing professional experiences (sayings). The group acts as a forum for collective reflection that includes dialogical giving and receiving of support and help. Authentic problems are discussed, analysed, and solved together. The meetings function as a sounding board in which the teachers dare to ask “silly” questions without performance pressure.</p>	<p>Examples of cultural-discursive arrangements Peer-group mentoring is rooted in the high professional autonomy of Finnish teachers and schools. Discourses of autonomy as collective meaning making and will formation prefigure both educational practice and the practice of peer-group mentoring. Since the 1970s, Finnish teachers have a five-year master’s degree in teacher education, earning status and respect for the teaching profession.</p>
<p>Examples of doings The activities in peer mentoring groups are rather informal and flexible. Often, meetings start with coffee and a snack, so the teachers can unwind and change focus to peer-group mentoring. Groups decide the aims and issues for discussion collectively and govern their own proceedings. No documentation or reporting is required. Meetings thus offer confidential time and space for discussion, problem solving, sharing of experiences, and discussing professional literature.</p>	<p>Examples of material-economic arrangements Since Finnish teachers are fully qualified immediately after having received the master’s level diploma, no elements of assessment, registration, or control are required in mentoring. New teachers’ participation in mentoring groups is voluntary. Usually, groups of four to ten teachers meet outside school with a mentor (facilitator) once a month for one and a half to three hours. Municipalities organise peer-mentoring groups and pay-group facilitators (mentors).</p>
<p>Examples of relatings The relationships in peer-mentoring groups aim to be symmetrical, above all in the existential dimension (as human beings); new teachers are regarded as equal to their more experienced colleagues. In the epistemic dimension, the relationships are asymmetrical</p>	<p>Examples of social-political arrangements In Finland: The induction of new teachers is not based on legislation, but a number of policy reports have encouraged the development of induction models. The PGM model was implemented nationwide by the</p>

<p>regarding knowledge and expertise: usually, group facilitators have more experience of the profession, while young teachers may have more epistemic capital (know-how and experience) on some other issues. This diversity enhances learning and development in the groups, as the teachers share experiences and expertise from different fields. In the juridical dimension, the relationship is also asymmetrical: the facilitator has greater responsibility for leading the meetings and responsibilities to the employer.</p> <p>Peer-group mentoring decreases new teachers' feelings of being alone and offers them new contacts with other schools.</p>	<p>national programme for teacher development, Osaava-ohjelma, in 2010-17.</p> <p>In the universities: all universities offering teacher education and all vocational teacher education colleges have been members of the Finnish Network for Teacher Induction, which offered an education module for mentors, lasting one academic year (8-10 ECTS credits).</p> <p>In municipalities, municipalities are responsible for the continuing professional development of teachers, for offering peer-group mentoring to new teachers, and for paying mentors for their work.</p> <p>In schools: A variety of different arrangements and relationships support new teachers.</p>
<p>Project</p> <p>To promote professional well-being and learning about professional practice. To become a member of a professional community.</p>	<p>Practice landscapes</p> <p>The participants decide themselves where to meet, normally in places that enable private and confidential discussions. Participants can also visit each other's schools. The practice landscapes are thus rather informal settings for sharing experiences.</p>
<p>Dispositions</p> <p>By practising peer-group mentoring as a form of collaborative self-development, mentors, and mentees are likely to develop dispositions towards engagement in a professional community committed to individual and collective self-development. This form of mentoring is likely to enhance teachers' sense of professional autonomy.</p>	<p>Practice traditions</p> <p>Mentoring as collaborative self-development is framed by practice traditions of education and pedagogy, especially adult education pedagogies for continuing professional development in working life. It is also informed by Nordic traditions of folk enlightenment and traditions of collaborative action research in education.</p>

2.2 Practical and theoretical foundations of peer-group mentoring

Kemmis et al. (2014b) outlined the practices and practice architectures of collaborative self-development mentoring, exemplifying the actions and arrangements of the practice. However, this depiction is not an exhaustive description of the archetype but makes sense of the practical foundations of the practice (Table 2). In Finland, the teaching profession is based on a high level of professional autonomy: the education system does not have school inspectors, curriculum design allows space for teachers' own choices and decision-making, and teacher qualification is based on a master's level degree (Haapaniemi, Venäläinen, Malin &

Palojoki, 2021). Municipalities, as decision makers, create the conditions for schools and education and also support the idea of decentralisation of the education system. Education practices are then modified in local arrangements, which allows a so-called bottom-up approach for the development of the education system (Väljjarvi & Heikkinen, 2012, p. 39). Activities in the PGM model reflect the arrangements in the Finnish education system and are designed specifically by Finnish teachers at the national and local levels. Therefore, the model follows a few practical guidelines that give the particular shape and form for the mentoring practice to fit into the Finnish education system (Heikkinen, Jokinen & Tynjälä, 2012):

- The main instrument of PGM is dialogical interaction through discussion and conversations.
- Teachers are encouraged to reflect on and solve authentic issues in their profession and everyday teaching.
- Members of a peer group usually meet once a month per academic year for a couple of hours after teaching lessons.
- Participation is voluntary, and mentoring does not include elements of evaluation or assessment.
- Ideal places for meetings allow confidential and peaceful discussions.
- Hot beverages and snacks are often included to create a cosy atmosphere in the physical arrangements.
- The preferred number of participants is between 5 and 10 members, so the group has a polyphony of experiences without crowding the discussion.
- Groups can focus on specific themes, methods, or disciplines related to teaching.
- The mentor's role is to facilitate the meeting (preparation and practical arrangements) and lead the discussion (guiding and asking questions).
- Mentor training is organised by the teacher education providing universities as an 8–10 ECTS (European Credit Transfer and Accumulation System) credit study module.
- Mentees are recognised as equal members of the group. The designated roles of mentor and mentee in peer group mentoring do not create fixed positions in terms of expertise. Instead, participants share their knowledge and experiences, and sharing is valuable as such without any formal titles to highlight or prefigure the expertise.

As mentioned, these practical activities have been deliberately designed to support the professional development of Finnish teachers and to be suitable for the Finnish education system. Along with practical guidelines, there is a firm theoretical basis for the PGM model. The underlying principles of the Finnish model of the PGM are rooted in theories of learning and professional development, giving distinct characteristics to the model. These theoretical principles are as

follows: (1) constructivism, (2) integrative pedagogy, (3) dialogue and narrativity, (4) autonomy, and (5) equity.

Constructivism maintains that knowledge cannot be transferred from one individual to another because new knowledge is always interpreted on the basis of our prior knowledge, conceptions, experiences, and beliefs in social interaction (Heikkinen et al., 2012, p. 22). Therefore, discussion and communication between people are needed to create a shared understanding and knowledge. Founding on the constructivist perspective, PGM is based on the exchange of ideas and joint knowledge construction, in which all participants can learn (Heikkinen, et al., 2012, p. 24).

Integrative pedagogy is utilised as the guiding model for learning. The main principle of integrative pedagogy is that different forms of knowledge are integrated into the educative process to promote learning and professional development (Tynjälä, 2008). Integrative pedagogy addresses the common demand to combine 'theory and practice' in education, but instead of 'theory and practice', integrative pedagogy refers to four forms of knowledge: (1) theoretical and conceptual knowledge, (2) practical and experiential knowledge, (3) self-regulative knowledge, and (4) socio-cultural knowledge (Tynjälä & Gijbels, 2012, p. 212). Tynjälä et al. (2020) defined these different forms of knowledge as follows:

"1) Theoretical or conceptual knowledge, which is universal and explicit in nature and can be learned, for example, by reading professional journals and books, by listening to expert presentations, and by sharing knowledge with peers, mentors and trainees in expert networks, including via digital media. 2) Experiential or practical knowledge, which is personalised through experiences. It is derived from particular cases, phenomena and occasions. While it may be implicit or tacit in nature, it can also be narrated, reflected upon and discussed. 3) Regulative knowledge, which involves professionals' command of their own mind and activities. It includes metacognition, that is, awareness and regulation of one's cognitive capacities. It also involves self-reflection, specifically: reflection-in-action, reflection-on- action, and reflection-for-action. As such, it incorporates following one's own actions' effects through work processes not only with respect to tools and artefacts but also regarding collaborators, clients and oneself. 4) Sociocultural knowledge, which materialises in social practices and through communication means, gives access to knowledge depositories, professional networks and hierarchies, as well as involving the tools and devices used in practices."

Integrative pedagogy has been implemented in several projects in the field of higher education. Pekkarinen and Hirsto (2017) studied university teachers' development of pedagogical competence during a 9-month course. They noted that university teachers improved and recognised their pedagogical skills when they engaged in reflective tasks. Another study (Korhonen et al., 2017) investigated the experiences of student teachers participating in peer mentoring groups with in-service teachers. The main finding was that student teachers experienced the mentoring meeting in different ways in terms of depth, learning, and effectiveness, which were summarised in four categories: (1) coffee break, (2) peer support, (3) identity construction, and (4) a professional community. A critical notion was that student teachers relied on the views of in-service teachers about their practical experiences, which created some disconnection between theory and practice. Instead of creating ideas for school transformation, student teachers might have

gained the perception of reinforcing the existing school culture (Korhonen et al., 2017). In a study of a particular teaching practicum in a field school (Heikkinen, Tynjälä & Kiviniemi, 2011), pre-service teachers reflected their experience being closer to the real work of teachers compared to university training schools. However, in this study, student teachers reported the lack of support from the university lecturers, and felt that they were missing feedback and reflective discussion. Martin, Rautiainen, Tarnanen, and Tynjälä (2022) investigated creative writing in teachers' professional development following the principles of integrative pedagogy. Their finding was that creative writing with peer support can help teachers' holistic professional development.

In PGM, the integration of the different forms of knowledge happens through informal discussion of the authentic experiences of the group members (Heikkinen, et al., 2012, p. 28). Colleagues in the group may help verbalise practical and experiential knowledge by using the theoretical and conceptual knowledge learned in formal training. Asking questions and commenting helps to reflect personal experiences from different perspectives, and sharing the social practices of different schools and subjects makes it possible for participants to have access to socio-cultural knowledge other than that of their own work community.

The basic principles of constructivism and integrative pedagogy are accompanied by the principles of narrativity and dialogue (Heikkinen, et al., pp. 14–15). According to these principles, both the mentors and mentees learn in the mentoring process by sharing narratives about their work and life instead of transferring knowledge. Narratives can be written or spoken stories about personal experiences, and can be expressed through different artistic methods, such as paintings, writings, performances, or music. Usually, these narratives are spoken stories. In a mentoring dialogue, participants verbalise their experiences by telling 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, as all of the participants in the discussion understand the incompleteness of their thinking (Heikkinen, et al., 2012, p. 14). Narratives can be utilised to understand personal identity, and in a similar way, professional identity can be construed through narratives.

The PGM model also supports the professional autonomy of teachers. However, autonomy is often misunderstood as individualism. A high level of autonomy does not necessarily allow teachers to do whatever they like. The concept of autonomy emphasises interaction and collective will-formation in a social sphere, whereas individualism refers to actions based on the will of a particular individual (Heikkinen, Pennanen, Markkanen & Tynjälä, 2020). Finnish PGM draws on the idea of professional autonomy as collective will formation instead of individual will formation.

PGM is based on the presumption that the members of the group are equal participants. Equity can be understood at many different levels: (1) as existential equity, (2) in terms of epistemic equity, and (3) as juridical equity (Heikkinen, et al., 2012, pp. 19–22.) First, the dimension of existential equity refers to the equal value of each individual's life in its uniqueness. From an existential point of view,

it is presumed that every participant is equally valued as an individual human being in a PGM. Therefore, the relationship between the participants is symmetrical. Second, 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 competences than others. Mentoring, in its traditional sense, is based on the assumption that the more experienced participant (the mentor) has more knowledge and experience. However, nowadays, it is likely that in some areas of life, the younger participants have such competence and know-how that can be useful for the teachers who have a longer experience in teaching (Geeraerts, Tynjälä & Heikkinen, 2018). Epistemic equity thus offers various options – a relationship can be asymmetric in a variety of ways, in favour of either the mentor or the mentee. Third, in terms of juridical equity, the focus is on the formally defined division of responsibilities, duties, and rights in the mentoring processes. In formal mentoring relationships, the mentor must assume more legal responsibility than the mentee. However, if the mentoring relationship is purely informal, juridical responsibility is not a major issue.

3 AIM OF THE STUDY AND RESEARCH QUESTIONS

The purpose of this dissertation is to examine PGM as a practice supporting new teachers' professional development in the early phases of their teaching careers. Using the theory of practice architectures, this dissertation focuses on the unfolding actions and prefiguring arrangements of the PGM model and the implementation of PGM in the Finnish education system. In addition, an examination of the collaborative research undertaken during this dissertation study provides insight into the conceptual work done in the research practice. The article-based dissertation consists of four sub-studies, as shown in Table 4. Study 1 examines the constituting arrangements for good mentoring through comparative case study analysis based on teachers' experiences of mentoring in the sites Finland and Australia. The study aims to advance knowledge about the arrangements of mentoring practices from an ontological perspective. Study 2 focuses on the participants' dispositions in PGM, informed by teachers' reflections about good mentors and good mentees, building the understanding of preferred qualities and activities of individuals in PGM meetings. Study 3 reviews peer-group mentoring as part of the Finnish education system, providing an understanding of participants' experiences and system-level organisational and administrative perspectives. Study 4 construes the collaborative research practice undertaken in this dissertation.

Table 4. Research questions of the sub-studies.

Sub-studies	Research questions
Study 1: What is 'good' mentoring? Understanding mentoring practices of teacher induction through case studies of Finland and Australia	(1) What are the perceptions and understandings of 'good' mentoring in the Finnish and Australian sites under examination? (2) What are the practice architectures (i.e., the cultural-discursive, material-economic and social-political arrangements) that enable and constrain different kinds of mentoring practices in these differing sites?

Study 2: The virtues of mentors and mentees in the practice of peer-group mentoring	What are the participants' conceptions of (1) a good mentor's, and (2) a good mentee's dispositions in the Finnish model of peer-group mentoring?
Study 3: Finnish model of Peer-Group Mentoring: Review of Research	(1) What are the main characteristics of the implementation and dissemination of the Finnish peer-group mentoring model? (2) How have mentors and mentees experienced participation in peer-group mentoring? (3) What is the role of peer-group mentoring in the administrative structures of education?
Study 4: Articulating the practice architectures of collaborative research practices	What are the practice architectures of our collaborative research practice?

4 METHODOLOGY AND DATA

The overarching theme of the methodology in this dissertation is the examination of an educational practice using a conceptual descriptive approach. The examination was guided by the theory of practice architectures, which served as an analytical lens. This particular theoretical frame provides tools for investigating practices and connections with local arrangements that enable and constrain specific types of practices at a particular site. However, the aforementioned theory is not committed to any specific type of methodology; it only guides the focus on practices as a complex form of socially established human activity (Kemmis et al., 2014b). The methodological array in the dissertation can be described as *a bricolage* (Kincheloe, 2001; Levi-Strauss, 1966) that consists of multiperspective research methods conducted in sub-studies. Kincheloe (2001) described bricolage in research as follows:

As researchers draw together divergent forms of research, they gain the unique insight of multiple perspectives. Thus, a complex understanding of research and knowledge production prepares bricoleurs to address the complexities of the social, cultural, psychological, and educational domains. Sensitive to complexity, bricoleurs use multiple methods to uncover new insights, expand and modify old principles, and re-examine accepted interpretations in unanticipated contexts.

Bricolage as a methodology aims to uncover new insights and interpretations that locate the approach in the field of qualitative research. The philosophical grounding of bricolage is closest to constructivism, as the methodology constructs new insights and interpretations using and combining the available methods and data. In the present study, qualitative methods were utilised to collect and analyse data on the actual experiences of the teachers who participated in the mentoring activities. Thus, these experiences form the empirical basis of this study.

The theoretical framework of the study offers an intriguing examination of subjectivity and objectivity. In relation to the theory of practice architectures, the dimension of physical space-time is easily accessible, since it is relatively easy to locate the practice at a specific time, in a specific place, with certain people performing activities, etc. Ontological descriptions of the arrangements in physical

time-space are not equally prone to subjective interpretation, as are the other dimensions. Experiences in the dimensions of semantic and social space are conveyed through language and social relations. These experiences cannot be extracted as such but are reached through the utterances of the subjects in the practice. Information about the mentoring practice is mediated through participants, which adds layers of subjectivity and interpretation to the study, along with the researcher's own subjectivity and interpretation.

I, the author of this dissertation, am closely connected to the Finnish model of PGM. I started my academic career in 2012 as a research assistant at the Finnish Institute for Educational Research, University of Jyväskylä. I worked on a team that coordinated the development and dissemination of PGM in Finland. As a new employee and freshly graduated primary school teacher, I participated in PGM-mentor training, which also involved attending PGM meetings. I was assigned to one of the local groups in Jyväskylä for the academic year 2012–2013. While attending the group and with the permission of the other participants, I made observational notes about the meetings, and the notes were collated in a research diary. Based on the mentor training and participation in the mentoring meetings, I began to formulate a preliminary understanding of the practice and research plan for my doctoral dissertation. In the beginning of academic year 2013–2014, I was accepted to the doctoral programme in education at the University of Jyväskylä's Faculty of Education. Later, I continued to work on the research team of PGM on various tasks. Working on the project enabled me to observe and participate in the development of the practice and to conduct research activities, such as data collection, analysis, and writing the study reports.

My researcher position can be understood as participatory in the investigation of PGM practices. In terms of teacher development, the researcher's position is limited. Even though I graduated as a primary school teacher at the time of committing to research on the sub-studies of this doctoral dissertation, I did not have any work experience as a teacher after graduation. Therefore, I do not have the same personal experience of the meaningfulness of PGM as supporting practice for the teaching profession as did the teachers with work experience in the teaching profession. The dissertation study is thus dependent on the participants' views of the PGM as a supporting practice for in-service teachers.

The methodological procedures of the four sub-studies are described in the following paragraphs, and the methodological details are summarised in Table 5.

Table 5. Methods and data of the sub-studies.

Sub-studies	Subjects/data	Data collection	Analysis
Study 1: What is 'good' mentoring? Understanding mentoring practices of teacher induction through case studies of Finland and Australia	Participants of mentoring (n = 50) in Finland and Australia	Interviews, essay writings, and participating/observational research notes of the two Australian researchers	Qualitative comparative analysis

Study 2: The virtues of mentors and mentees in the practice of peer-group mentoring	Participants of mentoring (n = 30) in Finland	Essay writing and interviews	Qualitative thematic analysis
Study 3: Finnish model of peer-group mentoring: Review of research	46 peer-reviewed publications	Reported publications of the Finnish Network for Peer-Group Mentoring and systematic search from article databases.	Thematic review
Study 4: Articulating the practice architectures of collaborative research practices	Written notes and diaries during the analytic process of Study 1	Reflective essays	Autoethnography

Study 1: What is ‘Good’ Mentoring? Understanding mentoring practices of teacher induction through case studies of Finland and Australia

Data

The data for Study 1 were selected from two larger projects in Finland and Australia. In Finland, the project generated two different sets of data. Essay writings were collected in the regional mentor training organised by the Finnish Institute for Educational Research in 2014. The participants in the training represented teachers from general education (primary school, lower, and upper secondary schools) and vocational education. However, most of the informants were from general education, and the majority were women. Participants in the mentor training were asked to write two fictional examples of PGM meetings. The first story was instructed to be a failed example of a PGM meeting, and the participants were asked to reflect on what went wrong and for what reasons. In the second instance, the participants wrote an example of a successful PGM meeting and explained why it was successful and for what reasons. Although the instructions were quite general, the stories based on fictional events revealed respondents’ insights into the meetings, settings, events, actions, and credible characters. The essays provided 37 pages of data. The research material was obtained using narrative methodology, called in Finnish “eläytymismenetelmä”. The English name of the method became widely known and established only after we finished this study. Nowadays, the method is known in English as the *Method of Empathy-Based Stories (MEBS)*. This method, developed in Finland, has only gained wider international use in recent years, and proper methodological literature on it has only recently been published in English (Wallin, Koroljungberg & Eskola 2019). Given that the methodological text was not available at the time of writing the article (2014–16), we could not refer to it in our original study; therefore, the term MEBS was not used in the original publication.

The research also used focus group interviews as a source of data. These interviews were coordinated by the PGM research team at the Finnish Institute for Educational Research. In total, 16 Finnish participants (11 mentees and 5 mentors) were interviewed in 2012. Five semi-structured focus group interviews explored topics such as group composition, communication, and interaction in the group, roles in the group, how the group was organised, and its activities. The interviews were transcribed, producing 90 pages of transcriptions in total.

In the case of Australia, the mentoring data formed part of a larger action research case study on practices of school transformation, leadership, and capacity building in a rural secondary school. Two Australian researchers spent one year interviewing staff members as individuals (N = 10) and in focus groups (N = 8), as well as observing staff meetings (N = 1) and staff development days (N = 2). Practices of mentoring were evident across three sites of practice within the school: in cross-disciplinary faculty groups, among the staff who participated in a special educational programme for 15–16-year-old students at risk in Years Nine and Ten, and in a school-based mentoring programme for New Scheme Teachers, which was supported by National Partnerships funding. In conversations with the participants, they were asked to reflect on experiences of mentoring (being mentored and being a mentor) and on ways in which specific incidents of mentoring practices enabled or constrained school transformation, leadership, and capacity building. The data came from the interviews and focus group discussions with the four teachers and one new scheme teacher involved in this school-based practice (N = 6 transcripts in total). Interviews and focus groups were audio-recorded, while observations were documented using an audio recorder and field journals. All audio-recorded materials were transcribed.

Analysis

The analytical process was conducted in two stages. In the first-order analysis phase, the data for Finland and Australia, New South Wales, were analysed separately by the researchers who collected the data in these contexts. As individuals, the researchers subjected the data to content analysis and then categorised the content into themes. The researchers then met in pairs and collated the emerging themes that were specific to Finland or Australia, New South Wales. In the second order of analysis, the thematic data from the two contexts were brought to three meetings between the four researchers and again categorised according to the research questions guiding the study. In these reflective research meetings, the researchers paid attention to what was present or absent from the data across contexts. At this point, the data were examined for theoretical alignment with the theory of practice architecture.

This phase of the second order of analysis was significant, given our practice of collaborative interpretation and analysis of the data in a concentrated block of three weeks in Australia, where the four researchers came together to conduct the analysis. During this period, researchers were able to make explicit the 'thoughts behind the research process' (Sommer 2009, p. 12), deliberately accepting responsibility for the practices of interpretation. The researchers shared

the stories of the research encounters in an attempt to make sense of the nature of the research context and the practices under examination and to justify the conclusions drawn. The collaborative practice acknowledged researchers as 'essentially the instruments of interpretation' (Platt 2002; in Sommer 2009, p. 14). This collaborative practice also established a measure of the trustworthiness and triangulation of the coding practices. In the later phase, the analytical process moved beyond explicit understandings of the practice of mentoring towards more implicit understandings of the practice embedded within the practice architectures that surrounded mentoring (cultural-discursive (sayings), material-economic (doings), and social-political (relatings) arrangements). At this point, through discussion, the researchers were able to recognise 'potentially ... new forms of practice and new kinds of subjectivities' (Martin & Kamberelis 2013, p. 677) and cultivate 'the possibilities inherent in the participant's own understanding' (Watts 2014, p. 8), as shared in the interviews.

Study 2: The virtues of mentors and mentees in the practice of peer-group mentoring

Data

Study 2 was based on the Finnish part of the dataset used in Study 1.

Analysis

The subject for the analysis in Study 2 was the dispositions of the participants to PGM. Dispositions are personally and uniquely developed and embodied qualities that are socialised and acquired through social practices, and that also shape the individual's ways of participating in the practices. Data analysis consisted of two parts: empirical and philosophical. Dispositions were drawn from teachers' experiences in PGM (empirical side) and reflected with the contemporary theory and philosophy of disposition (philosophical side). For the empirical side, a post-modernist, constructivist narrative approach was adopted to aim for local, personal, and subjective knowledge rather than objective or generalised knowledge (Heikkinen, 2002) through the investigation of interviews and fictional written stories as narratives. A mixture of fictional stories and interviews provides an open channel for the expression of teachers' views of good mentors and mentees. On the philosophical side, the study orientation was hermeneutical and aimed for a construed and coherent interpretation of the subjective experience and fictional narratives through dialogue with the theories and philosophy of disposition and virtues based on the idea of a hermeneutic circle (Moilanen, 2002). The collated characteristics in the results contained items from both fictional stories and the interviewed experiences based on actual meetings, which were exemplified through translated excerpts. Names appearing in the excerpts were used as pseudonyms.

The starting point for the analysis was the scrutiny of dispositions in terms of thematic content analysis. The data were shared between two researchers who used the question “What constitutes the social disposition of a mentor and mentee?” to identify (theoretically informed) items that were considered meaningful to the research topic. The social aspect was emphasised for two reasons: (1) the data focused on peer-group mentoring meetings, which are an inherently social activity, and (2) the analysis was guided by the researchers’ interpretation of dispositions in peer-group mentoring in relation to the theoretical frame, which constitutes social conceptions of disposition. Therefore, the end results do not fully explain or exhaustively describe the whole set of dispositions that a participant in PGM could possibly obtain, yet the study offers a starting point for the dispositional investigation of PGM from a social perspective.

The analysis took place in two main phases. In the first phase, thematic content analysis was carried out. The texts of both datasets were repeatedly read to identify differences and similarities in descriptions of mentors’ and mentees’ dispositions. The identified items from the two data sets were initially (and roughly) combined into thematic categories for both mentor and mentee disposition using a conventional word processing programme. Six thematic categories for mentors and seven thematic groups for mentees were produced. The first categories described characteristics such as attendance, equity, trust, motivation, participation, and commitment (to mention a few).

At this stage of the analysis, the researchers evaluated the structure of the items and noted that (1) mentors and mentees shared largely similar characteristics (although a few exceptions were found), and (2) extracts in the data also described different states of certain social characteristics. With respect to the former, the researchers decided to combine similar items as common characteristics, and with respect to the latter, in the second stage of the analysis, the categories were interpreted in light of Aristotle’s description of virtues and vices, as the initial descriptions of the characteristics seemed to bear resemblance to virtue philosophy.

During this process, rather than turning respondents’ characterisations into Aristotle’s virtues through vigorous interpretation, the architecture of Aristotle’s virtues and vices was applied, and incorporated with the views of the respondents (for a similar structuring, see Kakkori & Huttunen, 2007). The chosen method strove to remain honest to the voice of the respondents, perhaps at the cost of devotion to Aristotelian philosophy. However, given that the focus of this study was on PGM rather than Aristotle’s virtues, the study aimed for a condensed view of mentoring dispositions in PGM.

Study 3: Finnish model of Peer-Group Mentoring: Review of Research

Data

Study 3 was based on 46 peer-reviewed articles and book chapters. The original list consisted of 193 publications, which included 7 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, 3 doctoral dissertations, and 69 conference papers or posters. Many non-refereed publications were also included in the list. Publications for the actual review were extracted from the original list by setting the following criteria: (1) they had to be peer-reviewed and (2) they had to focus on PGM instead of traditional one-to-one mentoring. A list of publications was gathered from the Finnish Network of Peer-Group Mentoring and a systematic search of literature was conducted in the ERIC and ARTO databases. Of the final data of 46 publications, 20 focused on the PGM model in general education (including primary, secondary, and general upper secondary education), five represented vocational education and training, and two represented higher education (including teacher education). In four studies, PGM was examined at more than one education level or sector. The remaining 15 studies were theoretical or conceptual. Methodologically, the qualitative research approach was dominant; only one study used quantitative methods.

Analysis

The thematic review in Study 3 can be considered a qualitative meta-synthesis (Sandelowski & Barroso, 2007), as it aimed for an integrated description of peer-group mentoring and resulted in a holistic view of the current state of the model. This meta-synthesis provides a novel interpretation of the findings informed by the reviewed research reports. For the qualitative analysis, the studies were carefully read, and the following details were recorded in a spreadsheet: publication forum (international/national), authors, topic, educational level(s) and sector(s), research questions, data, analytic methods, main findings, and notes (researchers' interpretation). The main findings of the studies were summarised in short phrases, such as "Mentees saw PGM as an important tool for PD throughout the teaching career. Few significant differences between general and vocational teachers. New conceptualisation of PD: Development of skills and knowledge, strengthening professional identity, development of work community." In the next phase, the recorded data were carefully read to answer the research questions of Study 3. The analysis resulted in three main themes of peer-group mentoring interrogated at three different levels of the educational system.

4.1 Study 4: Articulating the practice architectures of comparative research practices

Data

Reflective narratives were gathered in 2015 from 4 researchers collaborating in Study 1. Reflective narratives were autoethnographical portraits answering the question, “What are *the practice architectures of our collaborative research practice?*” The narratives accumulated six pages of written material. Personal communication through email and meeting notes between the research team in the time period of 2012–2016 were used as additional data.

Analysis

Enquiry in Study 4 was about making evident the practice arrangements that constituted our practice of collaborative research. The task was to construct individual critical narratives that described, from our own points of view, how we made sense of the collaborative research practice we engaged in during 2014, when we collaboratively analysed case study data collected in Australia and Finland. The reflective process resembled the structure of critical reflective enquiry (Cardiff, 2012), yet the approach was modified to connect more directly with the theoretical frame. The personal essay writings by the members of the research team captured the descriptive phase of the process in which the research setting and activities were depicted. In the reflective phase, the researchers came together to create a shared interpretation based on the individual descriptions. The structure of the analysis is summarised in Table 6.

Table 6. Structure of analysis of Study 4.

	Descriptive phase	Reflective phase	Critical phase
Process	Individual narratives: Personal essays about collaborative research practice	1 st order analysis: Collective space for creating shared interpretations	2 nd order analysis: Abductive approach to make the less obvious visible
Levels of reflection	First reactions, personal experiences	Obvious elements of collaborative research practice	Cultural-discursive arrangements, material-economic arrangements, social-political arrangements
Products	Autoethnographical descriptions of the collaborative practice	Five categories: Researchers, theoretical frame, academic discipline qualitative data, and methods of analysis	Synthesis of the reflection

5 FINDINGS OF THE SUB-STUDIES

5.1 Study 1: What is 'good' mentoring? Understanding mentoring practices of teacher induction through case studies of Finland and Australia

Study 1 examined how particular kinds of practice arrangements or practice architectures prefigure distinctively different purposes, understandings, and manifestations of 'good mentoring' practice in the Finnish and the New South Wales, Australia, education sites. Two examples were chosen for comparison to illustrate the different purposes of mentoring practices by employing the theory of practice architectures. The example from Finland was the PGM model, which is based on the ideas of socio-constructivism, dialogue, and knowledge sharing. The example from Australia was a formal one-to-one mentoring model in New South Wales, which was outlined by an accreditation process and the establishment of standards for teachers. The data for the Finnish case consisted of five semi-structured focus group interviews and essay writing of teachers participating in mentor training. The data for the Australian case consisted of group and individual interviews, and researchers' observational notes made during school visits. The data were first inductively analysed in thematical categories and then reflected on using an abductive approach. This summary will focus mainly on the Finnish model of PGM, as it is the overarching theme of this dissertation.

In the Finnish data, seven categories were identified, which provided a preliminary understanding of the prefiguring arrangements formed in the particular site of the practice. These categories were *time*, *physical settings*, *social atmosphere*, *interaction*, *unwinding*, *common agreements*, and *composition of the peer group*.

Time had two dimensions in the data: time *for* the meetings and time *in* the meetings. When people were working in a group, it was important that there was sufficient time for the meeting, the date was suitable for everyone, and the meetings had some kind of continuity and stability (e.g., a certain day in a month).

Further, the time for planning and the use of time within the meeting emerged as a critical issue. The actual site as a physical setting involved many meaningful elements that affected the outcome of the meeting. Positive and negative adjectives were used to describe the physical settings: uncomfortable chairs, draughty windows, noisy music, beautiful, and cosy places, warm rooms, and tasty biscuits. In most situations, the ideal place for the mentoring meeting was something other than the teachers' own classroom.

Time and physical settings were one part of the common agreements that the participants planned and agreed upon in the group. These agreements were important to ensure the effective work of the group, and democratic decision-making involving every member of the group. The groups agreed, for example, about where they would meet, the dates and times for the meetings, and the topics and themes they wanted to address. Peer groups also created rules to ensure commitment and confidentiality, which influenced how the participants would work in the group—for example, how to talk about issues and about the group itself to persons who were not participating members of the group. However, these rules did not prevent spontaneity during the meetings, and plans were modified if there seemed to be urgent, relevant issues to discuss.

The expressions in the interaction category mirrored reciprocal and constructive activities. The participants were allowed to be themselves, and the group provided the opportunity for everyone to contribute to the discussion. Different types of engaging activities were used to promote active participation, such as picture cards, reflective writing, or physical exercises. Participants preferred meetings to have a constructive discussion and lead to problem-solving or a solution, so that participation in the group became meaningful.

Unwinding was separated from the category of interaction, as it clearly had its own specific meaning. Unwinding illustrated stress-relieving actions that participants did mostly at the beginning of the meeting; for example, catch up on personal news, unloaded stressful feelings by sharing recent experiences, or relaxed by having coffee or tea. For participants, unwinding was the moment when they often reported receiving emotional support. Social atmosphere refers to social relations and social interaction in the group, mostly through peerness or equity. Trust, respect, and openness were reported as elements that supported equity between participants. The group's togetherness or cohesion was mentioned as an aim to be achieved by the group. Well-being was expressed as a benefit or outcome in the utterances: teachers felt satisfied or relieved after the meeting.

The final category was the composition of the group. The ideal size of the group ranged from five to eight persons. Respondents participated in groups that were predominantly consisted of females, likely because of the general division of female and male teachers in Finland. Therefore, participants observed that they would have preferred to include more male teachers in the groups for a variety of viewpoints.

In terms of cultural-discursive arrangements, the purpose of the national project of PGM has been to create well-being at work for new teachers through the professional development afforded by the specific mentoring model. A

secondary purpose is to provide emotional support for teachers in their first years of teaching careers. These two purposes outline the discourse used in PGM, of which 'unwinding' is a perfect example of the language of well-being. Sayings in PGM emphasise a humanistic and collegial setting.

In terms of material-economic arrangements, time was a constant theme in the participants' sayings about PGM. Material-economic arrangements were overshadowed by the lack of time for teachers to cope with their work (including the negotiations to find time for PGM), alongside one's personal demands (e.g., to find time to meet outside of school hours). In Finland, national funding covered the training of mentors, but it was not provided for teachers to take part in peer-group meetings during school time. This depended on the education provider's local arrangements, which varied from formal recognition of PGM as professional development to voluntary participation without any compensation. These material-economic arrangements can be interpreted as hindering factors that influence teachers' accessibility to PGM. Even though participation is voluntary-based and compensation is unclear, teachers are still willing to participate. One explanation is that the benefits of participation overcome these hindering factors. Nevertheless, arrangements that enabled participation in PGM were seen as helpful and needed. Another aspect of material-economic arrangements was the physical arrangements of the meeting venue. Meeting place was not irrelevant for organising mentoring activities, and the surrounding environment influenced how teachers partake in mentoring. The ideal space was not in the workplace, had pleasant and congenial surroundings to induce a spirit of relaxation, and was quiet and private enough to allow for the exchange of confidential aspects of work.

From a social-political arrangement point of view, noteworthy was the fact that although the groups were led by a mentor, the groups combined a mix of experienced and less experienced teachers who were seeking an enhancement of their work well-being and professional development in equal stance. Good PGM practice was characterised as forming collaborative relationships, with an emphasis on new teachers and mentors as co-constructors of knowledge. Good mentoring practice focuses on shared meaning-making, attentiveness, reciprocity, participatory, authenticity, and meaningfulness. In this set of arrangements, there is a presumption of agency, ownership, and power to build professional identity and a pedagogical disposition. Mentees' subject location was signified as one of trust, respect, and autonomy—a valued teaching professional who brought knowledge and competence to the group.

5.2 Study 2: The dispositions of mentors and mentees in the practice of peer-group mentoring

Study 2 investigated participants' conceptions of the ideal mentor and mentee in the Finnish model of PGM. The main concepts of this enquiry were dispositions

(habitus) and virtues, drawing on the theory of practice architectures and Aristotelian virtue philosophy. The methodology was based on narrative and hermeneutical approaches to analyse data from 30 respondents collected in essay writings and focus group interviews. The main outcome of this study was identifying the meaningful characteristics for both mentor and mentee in PGM, as shown in Table 7. These characteristics display the different aspects of dispositions based on the respondents' subjective and conceptual descriptions of the dispositions.

Table 7. Characteristic virtues and vices of a mentee and a mentor. (Modified version from the Study 2)

Deficit	Ideal	EXCESS
Disposition of a mentee		
Timid	Courageous	Arrogant
Dispositions of a mentor		
Passive	Considerate	Commanding
Reluctant	Motivated	Externally Motivated
Unprepared	Prepared	Over planning
Common dispositions for a mentee and a mentor		
Submissive	Equal	Dominant
Negligible	Peer	God like
Uncommunicative	Communicative	Too talkative
Not taking space	Sharing space with others	Taking space from others
Reserved	Sharing	Thundering
Ignoring	Attentive	Intrusive
Dismissive	Constructive	Upraising
Inadvisable	Reflective	Unconclusive
Insensitive	Empathic	Over emotional
Anxious	Calm	Uptight
Not committed	Committed	Obsessed
Exhausted	Energetic	Hyperenergetic
Bad		Good
Absent		Present
Unreliable		Trustworthy
Not interested in professional development		Interested in professional Development

The findings depicted key individuals' characteristics as attitude, proactive, reactive and responsive participation in PGM. These characteristics reflect the contemporary views of mentoring by lateral relationship (developmental dimension), reciprocity (learning dimension), and equality (social dimension). The

mentor's role is focused on facilitating the meeting (preparation and practical arrangements) and the discussion (guiding and asking questions), which is conceptually very different from how the mentor's role is traditionally understood. The roles of mentor and mentee in PGM are not fixed in terms of expertise; instead, participants share their knowledge and experiences, and sharing is valuable as such without any formal titles prefiguring the expertise.

PGM seems to promote a sense of equality and peerness. To be confident in sharing feelings and experiences, participants seek common features with which to identify and relate. However, the data revealed an interesting dilemma. In addition to seeking common features, the participants also wanted a polyphony of perspectives and experiences to promote constructive and reflective discussions. These views can be interpreted as follows: common denominator creates cohesion in the group, whereas diversity is a catalyst for reflective discussion and constructive exchange of ideas. The identified set of characteristics can be used as a conceptual tool for understanding the nature of PGM and, for example, for planning the training for mentors.

5.3 Study 3: Finnish model of Peer-Group Mentoring: Review of Research

Study 3 was a review of the research published about the Finnish model of PGM in Finland between 2009 and 2019. The focus of the review was on (1) general aspects and characteristics of the implementation of the model, (2) mentors' and mentees' experiences, and (3) the role of PGM in the administrative structures of education. Thematic review was based on 46 peer-reviewed publications that were collected from the participants of the Finnish Network for Peer-Group Mentoring and was a systematic search using ERIC and the Finnish ARTO databases. Studies were critically read to identify the following details of the study: publication forum, authors, topic, education level(s) and sector(s), research questions, data, analytic methods, and main findings.

The findings of the review are summarised in Table 8, in which three main themes are identified at the individual/group, community/organisation, and national levels. These three main themes were prerequisites of functional mentoring activities, outcomes/benefits/implications of PGM, and challenges.

Table 8. Summary of the findings in Study 3.

Main themes	Individual/Group level	Community/organisational level	National level
Prerequisites of functional mentoring activities	Social factors: open atmosphere and mutual trust. Methodological factors: Rules and agreements.	Administrative factors: organisational support. Physical factors: Time and plane convenience.	Funding and agreements.

Outcomes/benefits/implications of PGM	Time and space for reflecting and sharing experiences. Empowerment and increased self-confidence. Professional identity development. Conceptual change. Increased motivation and well-being.	Mainly indirect effects: Empowered teachers act as agents of change. More direct effects when teachers come from the same school and when the groups are multidisciplinary. One possible method for teacher induction.	National network for mentoring and teacher induction. Research-based practice.
Challenges	Group dynamics. Time management and commitment.	Recognition of peer learning as professional development.	Lack of national agreement. Compensation for mentors. Allocation of working time for mentees.

Regarding the main characteristics of the implementation of the PGM model, two thematic lines of the research were identified: studies focusing on different models of organising mentoring and studies aiming at identifying prerequisites and characteristics of successful mentoring. The first mentoring experiments included three models: (1) traditional paired mentoring with one experienced mentor teacher and one novice teacher; (2) peer mentoring with an experienced teacher as a mentor and a group of beginning teachers; and (3) PGM with an experienced mentor and a group consisting of both new teachers and experienced teachers. Thus, there were differences in the goals and starting points of the models. The objective in the first two models was to support newly qualified teachers at the beginning of their careers, whereas the third model aimed to develop a new form of teachers' continuous professional development to benefit teachers at all stages of their careers. A comparison of the three models found strengths and challenges in all the models. Common to all the models was that both the mentees and mentors found mentoring to be a functional forum for professional dialogue and sharing experiences. The one-to-one model made more personal discussions possible, whereas in the group models, the discussions brought about a larger variety of different perspectives and new ideas on the topics dealt with. The study also showed that, regardless of whatever model is used, maintaining mentoring activities requires well-defined structures, coordination, and management from the local school administration. The lack of mentors was a problem in the paired mentoring model, whereas in the group models, the required number of mentors was smaller. The lack of local or national agreements about organising mentoring, compensation of mentors, and allocation of mentees' working time proved to be problematic. Organising the activities may then depend on individuals' motivation and are thus vulnerable when administrative officials change. As the PGM model emphasises the autonomy of the

teaching profession, no strict directions are given to education providers on how to organise activities.

Seven of the reviewed studies highlighted the key factors for successful PGM. “Successful” here refers to positive experiences expressed by the participants, mentors, and education providers, and to the balance of equality and polyphony of experiences between group members. On the basis of a narrative analysis in one of the studies, several factors were identified as contributing to success or failure in PGM, including physical and administrative factors, social factors, and methodological factors. Physical factors include, for example, the location and time of PGM meetings. A cosy meeting room at school or outside with refreshments was seen as important for creating a welcoming atmosphere. Administrative factors refer to organisational and municipal support for organising PGM. Municipalities, as education providers, decide on financial support for mentoring, such as mentors’ fees and the places offered for the meetings. The social factors contributing to successful group functioning are related to interactions in peer groups and the attributes of the mentor and the group. For example, mentor’s and mentees’ motivation, mutual encouragement, and active listening to each other were regarded as creating an open and confidential environment for constructive discussions. Methodological factors refer to how the group operates and what is done during the PGM sessions. The participants considered it important that the group members agree about the common rules, time management, and themes to be discussed. Regarding methods of structuring the meetings and ways of working, it was found that the participants appreciated a relaxing start with an introduction round, alternation between free and guided discussion, and the use of different types of group work methods.

The mentor’s role was seen as facilitating the meeting (preparation and practical arrangements) and the discussion (guiding and asking questions), and the mentor was recognised as an equal member of the group. In PGM, participants share their knowledge and experiences, and sharing is valuable as such, without any formal titles to highlight or prefigure the expertise. The success in mentoring is about finding a balance between communicative and strategic action, and this twofold purpose and rationale highlights the complicated role of a mentor – the tensions between supporting versus judging, or being a mentor versus being an evaluator. The mentor can succeed in the task of mentoring by cultivating different kinds of discussions in the group that were identified as opening up, facilitating, counselling, guiding, and organising.

Concerning the mentors’ and mentees’ experiences of PGM, most of the studies have focused on mentees’ perspectives. In general, teachers, whether new or experienced in their profession, found PGM important for their professional development and well-being. Teachers reported their improved skills and knowledge, and strengthening of professional identity as an outcome of participating in PGM. Participation in PGM also supported teachers’ self-reflection processes and helped them deal with emotionally challenging experiences. Some of the studies also examined the outcomes of mixed PGM groups of pre- and in-service teachers. Learning was experienced very similarly as in other studies, but

these groups also provided benefits to schools and teacher education institutions by improving their collaboration. However, there were also indications that student teachers might find it difficult to reveal their vulnerability and deeper emotions in PGM meetings. It was concluded that the situation could be improved by combining other reflective methods alongside mentoring, such as storytelling, reading, and writing.

Further, some key points were identified from the mentors' experiences. Mentor training was seen as necessary to promote prospective mentors' competence and understanding of the mentor's role. In particular, understanding mentors' mission, the importance of concepts and perspectives, and analytical ability, as well as the development of relational skills and communication skills, were highlighted in one of the reviewed studies. Mentors regarded their training as successful when there was an integration of theory and practice, for example, formal seminars combined with actual PGM meetings in the training programme.

PGM was also viewed in the wider context of the administrative structures of education. PGM is not only a method for teachers' individual development, but can also be used as a strategic approach to develop the school community. For a strategic approach, financial, and functional support from the educational administration was recognised as a necessity in order to create long-term development. Further, PGM holds the potential for an indirect influence, which can be actualised, for example, in teachers' improved collaboration and encouragement to introduce new ideas. In the comparison of international mentoring practices, the leading feature of PGM is the bottom-up approach, in which mentoring is based on local circumstances and conditions and promotes peer learning without formal assessment. For example, PGM does not include the formal accreditation process, as is the case in many other countries. Altogether, these notions reflect the professional autonomy of Finnish teachers, which is cultivated in the founding principles of PGM.

5.4 Study 4: Articulating the practice architectures of collaborative research practices

The purpose of Study 4 was to examine the theoretical and methodological perspectives of the collaborative research practice undertaken in this dissertation study. Clearly, this sub-study was a methodological inspection of the research, as the other sub-studies focused on the theme of PGM. This study did not offer insights about PGM but was located around the theme of PGM to provide a more in-depth investigation of the research activities. The data for this study consisted of reflective narratives produced by the four researchers collaborating in Study 1. A communicative space was created to dive into the personal narratives around a common theme of *what we were doing as we made sense of the data together*. 'Making sense' refers to an approach that was utilised to formulate an explicated (written and spoken) and comprehensible description of the research practice.

Sensemaking is about creating an emerging picture that becomes more comprehensible through data collection, action, experience, and conversation.

The collected data were exposed for two-order analysis: first, inductive reasoning was utilised to identify the obvious elements, and second, abductive reasoning was used to explore the less obvious but active dimensions of the research practice. Five main categories of the obvious elements were depicted in the reflective narratives: *researchers*, *theoretical frame*, *academic discipline*, *qualitative data*, and *methods of analysis*. The category of *researchers* pointed out the influence of the participating individuals and their prior history, such as different personalities, backgrounds, experiences, expertise, and dispositions. The category of *theory* illustrated the theoretical framework of the study and the researchers' individual understanding of the particular theory. The study was located within the field of educational research as a subtheme of teacher education and teacher induction, which, in the category of *academic discipline*, illustrated the influence of academic tradition and earlier work in that specific field. Academic discipline, together with theory, shaped the way in which to talk about and discuss the research topic, as well as how researchers and the topic were positioned in relation to the academic community. The category of *qualitative data* captured the topics discussed about the data used in the study, and the category of *analysis methods* described the methodological choices and decisions made in the study. The data and methods aroused the discussion, especially about the meaning of language and discourses for the investigation of the topic, since data were collected in two languages – English and Finnish.

These obvious parts of the research are essential for providing a clear picture of the conducted research. However, there was a need for further interrogations to reveal the implicit and critical points of the collaborative practice that were not apparent in the first reflections. The attempt was to make the less obvious visible. One of the interesting insights of further interrogation was the difficulty of defining the study approach in terms of previously established analytical approaches, especially if only one specific approach had been chosen. This insight revealed the complexity of the research actions. There were a variety of methodological constructs that could be used to some extent as portrayals of the research process. However, each approach would highlight different aspects of researching activities that enable and constrain different kinds of meanings and understandings. Thus, words, language, theory, and terminology are examples of the cultural-discursive arrangements that shape the understanding of the research practice.

Written descriptions of the research activities also connect the research with the academic community, as research publications are the instrument used to expose the work for review and critique of the academic community. Depending on the publication type, space for writing can be very limited to provide a detailed description for the people evaluating the research. Therefore, it is essential to wisely choose the arena of the discussion by selecting, for example, the appropriate terms to define the research methodology to reach the right audience and to receive constructive feedback or well-articulated critique. Thus, the academic

community also creates the social-political arrangements that shape the process, understanding, and outcomes of the researching activities. Mutual understanding is required between authors, editors, and reviewers to have a published paper about the research.

The social-political arrangements were also present in the research team. Through further interrogation, we realised that several power asymmetries could be identified. Work was done mainly in English; thus, there was power asymmetry between native and non-native English speakers. The authors were in different stages of the academic career, so there was a power asymmetry in terms of experience and academic position, which also set some requirements for the publication, for instance, doctoral student being the corresponding author for the publication. It is not self-evident that a collaborative research project leads to a greater understanding of the topic. Collaboration allows the chance for analytical richness and broadened discussion through multiple viewpoints, but there is a likely risk of fragmented interpretations. International multimember teams do not secure the outcome of greater understanding but may work as a platform for the sense-making process. Our reflexive method was dialogical and constructivist, and ultimately, it is difficult to say whose effort or which ideas were neglected or processed. If a personal opinion was expressed, then it was elaborated on by others, either overruled, reconstructed, or supplemented. The personal had become social.

Overall, the research practice was not only enabled and constrained by the micro-politics of the research team, but it was enabled and constrained by the relations to and within the wider theoretical frame (the theory of practice architectures); the methodological approaches adopted (qualitative analysis and inductive and abductive reasoning); and 'the industry of research publishing' – the high pressure for academics to produce many publications, especially in international journals.

Karl Weick (1995, 18) summarises sensemaking in the words of E.M. Forster: "How do I know what I think, until I see what I say". We have to act to make our thinking visible and to understand what we know about the practice. When something is said aloud, it reaches an audience that will provide feedback of some kind. The thought is contextualised, and then we are able to reflect on what we know in relation to others. Sensemaking is about the interplay of action and reflection. In our case, we decided to use reflective narratives as loudspeakers of our thinking. What was done (as reflective narratives) shaped the choices for next moves, the kind of analysis that could be done, the kind of conclusions that could be made, and the kind of article that could be written. If we had chosen a different method, surely the outcome would have been a different kind. However, it is impossible to say afterwards how much was different. In other words, reflective narratives were produced to make researchers' thinking visible, and for that data collaborative interpretation could be performed.

5.5 Synthesis of the sub-studies

This dissertation examines the Finnish model of PGM as a social practice in the Finnish education system. Synthesis of the sub-studies provides a conceptual view of the practice construed with the method of bricolage and informed by the theory of practice architectures.

Study 1 focused on understanding the underlying practice conditions that prefigure different mentoring practices in different social sites. The theory of practice architectures provided an appropriate lens through which mentoring arrangements were identified. These practice architectures constructed the understanding of the cultural-discursive, material-economic, and social-political arrangements, which are influenced by the practice traditions, and practice landscapes of the educational system. This led to the identification of ontological givens or manifestations of PGM in Finland. The ontological specificity of mentoring can be identified as imagined practice (conceptual views of mentoring) and as a lived practice (actual meetings taking place at a certain time and at specific locations). Ontological specificity emphasises the importance of taking local aspects and arrangements into consideration when establishing mentoring practice instead of transferring practices from one location to another as such. The consideration needs to include the aspects of material-economic, cultural-discursive, and social-political arrangements to build up practices that are sustainable and coherent.

The findings of Study 2 provided a conceptual view of the interaction and social relationships in PGM, as the findings were derived from the teachers' reflections in the fictional stories. These characteristics comprise a certain consensus on what is seen as appropriate or inappropriate in peer group mentoring practice. The identified characteristics of virtues and vices made sense of the practices (the set of actions), namely sayings, doings, and relatings in PGM. These practices, according to the theory of practice architectures, are prefigured by practice arrangements. Practices (sayings, doings, and relatings) and practice arrangements (cultural-discursive, material-economic, and social-political) are important for the development of the practice. Participants can develop their set of actions in order to move towards the aim of the practice that, in the case of PGM, is professional development and work well-being. However, practices can also be developed by modifying practice arrangements. Therefore, Studies 1 and 2 form an important combination that provides insights into the development of PGM and the organisation of actual group meetings.

Study 3 took a broader view of the practice of PGM and elaborated on the systemic approach of the model, as Studies 1 and 2 focused on the organisation of the meetings of PGM. The key issue identified in Study 3 is the national-level social-political arrangements, as there is a need for national agreement on how to organise teacher induction and mentoring in a more systematic approach throughout Finland. The difficulty of settling a national agreement is connected with the turbulence in the Finnish education system, because there are several

issues that need to be resolved to achieve better implementation of mentoring. These issues include, for example, the amount of compensation for mentors, allocating time for mentoring to both mentors and mentees, and better recognition of peer learning activities as teachers' professional development. Solving these issues would significantly improve the possibility of organising mentoring in the Finnish education system. In other words, national agreement could create such practice arrangements that Finnish teachers could practice mentoring, and implement the model of PGM.

The methodological insights of Study 4 are also important from the point of view of practice architectures. On the basis of the autoethnographic investigation, theories, and research methodologies can be regarded as practice architectures themselves. The use of certain theories and research methodologies prefigures what is possible or desirable in research: 1) how to speak and write, how to explicate happenings, actions, and activities, or power and solidarity relations that take place in social reality arrangements, for example, in education (cultural-discursive arrangements); 2) what and how to do, and how to act and behave; what material operations are followed in collecting data or analysing it (material-economic arrangements); and 3) whose opinions, views, views, or previous work, either within the research group or outside of it, should be taken into account; whose theories or methods we want to use; or by contrast, whose ideas we should just skip or neglect, who are the ones with whom we feel some sense of solidarity, and what are the 'academic tribes' we want to join and be initiated into through initiation rituals such as public defence of a doctoral thesis (social-political arrangements). The choices made in this research have shaped the way the model of PGM is conceptualised in this dissertation.

6 DISCUSSION

6.1 Reflections on the main results and theory

The purpose of this study was, first, to examine Finnish PGM practices and how they are prefigured by given practice arrangements (*practice architectures*) in the Finnish educational context (*practice landscape*), based on certain historically developed notions defining the role and task of the teachers (*practice traditions*), and secondly, on this basis, to provide research-based knowledge for the application of peer learning to teachers' professional with methodological considerations. The main conclusion is that national practice architectures do not sufficiently support the organisation of mentoring in Finland. The problems lie particularly in the material-economic and social-political practice architectures, which are manifested in the absence of national funding and collective agreements as necessary conditions for the establishment of mentoring. Adopting a broader view of the practice landscape, some issues are shared by Nordic countries, which are also useful for the reflection of induction and mentoring in Finland.

Peer-group mentoring in the Nordic context

In the comparison of the situation in Nordic countries, there are few important perspectives for induction and mentoring (Olsen, Bjerkholt & Heikkinen, 2020, p. 17). The first is that initial teacher education is not expected to prepare teachers for all the challenges that are faced at the beginning of the teaching career; therefore, supportive practices are needed in this particular phase of the teaching career. As demonstrated by Taajamo and Puhakka (2019), for example, induction and mentoring are currently not well organised in Finland and therefore improvement is needed, despite the fact that initial teacher education in Finland is regarded as a high-level and high-quality education (e.g., Heikkinen et al., 2015).

The second notion is that support and assistance for beginning teachers does have a positive influence on outcomes, such as commitment and retention of teachers, classroom teaching practices, and student achievements (Ingersoll & Strong, 2011). Further, in Finland, research already provides solutions for successful mentoring practices, which are specifically designed for the Finnish education system. Thus, the development of mentoring practices will not require preliminary or pilot research, but there is a need for updated information, for instance, about the implementation of mentoring practices, teachers' participation, and outcomes of mentoring.

The third notion is that induction and mentoring should not be regarded as isolated measures to support new teachers in their early careers; instead, induction, and mentoring practices should be integral parts of the "coherent system of initial teacher preparation that can serve as the foundation for a process of continued development throughout the full duration of a teacher's career" (Olsen, Bjerkholt & Heikkinen, 2020, p. 18). A similar suggestion has already been made in the review of the Finnish teacher education continuum (Heikkinen et al., 2015). As suggested in the review, the development of a coherent teacher education system requires the collaboration and joint efforts of the stakeholders of the Finnish education system, with collective decisions and agreements. Even though new teachers and early-career teachers are considered the target group for mentoring and induction, these activities are also beneficial for the professional development of experienced teachers. Therefore, these activities should not be seen as measures only for early-career teachers.

The Finnish model of PGM results from a long period of research and development and addresses features that are identified in the education system of Nordic countries. Constituting elements of PGM in Study 1 highlights the two purposes of the practice: to support teachers' professional development and to promote work well-being. In terms of practice architecture, this is identified as the project of the practice. One key question is how to recognise progress within the project. The question can be answered through the ideas behind the practice, which provide one approach to reflect progress through actions.

Integrative pedagogy of peer-group mentoring

Compared to ideological metaphors of mentoring practices, PGM clearly represents the modern constructivist learning approach to mentoring, relying on the model of integrative pedagogy. In PGM, the teacher's role is not prefigured, and the goals for learning are not pre-established, which distinguishes PGM from the traditional understanding of mentoring. Integrative pedagogy emphasises the fusion of the different forms of knowledge (Tynjälä, Virolainen, Heikkinen & Virtanen, 2020), which requires reflection. Questions, comments, and advice help individual teachers to develop their understanding of their own professional identity, and also the possible ways to grow as a teacher (Estola, Heikkinen & Syrjälä, 2014); thus, PGM supports the idea of *becoming*. However, reflective methods or tools should not be used without proper guidance as Pekkarinen and Hirsto (2017) noted. The use or concept of reflection may not be familiar to every

participant. This is critical when forming groups for peer mentoring. There should be some discussion about the purpose of group discussions and the principles for beneficial reflection. Therefore, guidance, and training are needed to support new teachers' professional development through reflection. Previously, mentors had been trained in specific programmes for PGM, coordinated by the Network for Peer-Group Mentoring, and training programmes should also be ensured in the future. Further, the potential of creative writing combined with peer support has been noted in teacher education (Martin et al., 2022)

In terms of *belonging*, teachers create the bond to the other members of the work community, and also as a representative of the profession. A sense of belonging and relating to other teachers as peers is also seen as one of the important features of PGM. PGM can create possibilities for a change in a teacher's career and receive many kinds of positive reinforcement that address the socio-emotional needs of professional development. Teachers should also have the opportunity to address the difficult issues of the work. The PGM model is designed to allow space for safe and confidential discussions of the challenging topics of the profession. The main instrument for this is the collective agreement between group members, in which confidentiality and level of detail are discussed. Collective agreement is a good example of a particular practice architecture that enables and constrains the practice of PGM. Collective reflection can expose negative aspects of the profession that need reformulation as well as possible solutions or suggestions. Thus, PGM can evoke *empowerment*. When given an active role in the work community, teachers can serve as change agents for better work conditions and education, and this positive progress can be supported through PGM.

This is also the aim of integrative pedagogy. Reflection is not only about contemplation of personal experiences but also about connecting experiences to broader theoretical knowledge and understanding. Along with new knowledge, skills, and identity development, integrative pedagogy also aims to transform practices and workplace development (Tynjälä, Heikkinen & Kallio, 2022). A deeper and broader understanding also requires a sense of the moral and ethical commitment of the practice. To move from practice to praxis, teachers should be assured of the importance of mentoring. As mentioned in the theoretical background, praxis can happen when people practicing are genuinely involved in the development of the activities and design of the practice. When establishing local mentoring activities, teachers should have the agency and authorisation to design practices for the needs of their professional development.

Mentoring architectures in the Finnish education system

Although PGM has significant potential to support professional development, teachers cannot achieve the change alone. Recent studies (Taajamo & Puhakka, 2019; Finnish National Agency for Education, 2020) have shown the low participation of teachers in induction and mentoring, and major improvement is needed especially in supportive arrangements. Actual PGM meetings are relatively easy to establish, since the main requirements are the venue for a group of teachers,

and preferably allocation of work time for the meetings. However, teachers need support from the school leaders and local education providers, mainly as the recognition of peer learning as professional development and the allocation of resources for the practice. Nevertheless, a broader view of the practice architectures is required to make PGM a sustainable practice³ in the education system, which depends on the collaboration between educational stakeholders and the interrelated practices of the education system.

PGM has been developed with project funding for many consecutive periods. Despite the long development and encouraging results confirmed by the research, there is great difficulty in moving from project-funded practice into a system-integrated practice. The practice architecture that best explains why PGM is not sufficiently rooted in the day-to-day work of schools is based on social-political arrangements. As stated in more detail in the original publication of Study 3, mentoring has not secured its place in the Finnish system of labour market agreements in the field of education; therefore, at the national level, the main challenges are the lack of national agreement and the lack of funding. There has been some progress in teachers' collective labour agreement, which allows for changing a maximum of 76 lesson hours to mentoring or tutoring in a school year. Previously, this number was 24 hours. The situation also reveals the interconnectedness of practice architectures. As there is no national agreement on mentoring as a social-political arrangement, it affects how funding is organised for mentoring, even though some resources are appointed for teachers. Funding can be seen as the material-economic arrangements of the practice. Education providers can arrange funding for local mentoring groups, but, for example, there is no ongoing funding for coordinating and organising mentor training in Finland. Therefore, national implementation of PGM requires more than local decision making, and national agreement on mentoring could bring improvement. This is topical for the new Teacher Education Development Programme launched by the Ministry of Education and Culture (2022). The ministry clearly stated that the programme aims to develop teacher induction training, which means that the programme will most likely create and transform practice architectures for teacher induction, especially in terms of material-economic and social-political arrangements.

Key issues to resolve through national agreement are the formulation of policy guidelines, establishing national coordination and training, and securing resources for induction and mentoring. Further, PGM is not meant to be a "one size fits all" solution. In other words, all of the issues and topics of teachers' professional development cannot be resolved through PGM. Forms of professional development consist of a variety of peer-learning activities (such as co-planning, co-teaching, development projects), seminars, and courses for continual training, occupational health care, and so on. Orchestration between these practices is needed to avoid overlapping activities, or topics that are uncovered. Recent

³ Here the sustainability is viewed very narrowly as it only considers the continuity of the practice. Author is aware that sustainability includes many other aspects, such as environmental sustainability in other contexts. Narrow view is used in the present study to maintain the focus on the practice development.

suggestions combine different practices to create a functional teacher induction and mentoring model for the Finnish education system (Heikkinen, 2021). Orchestration requires up-to-date research on the implementation of peer learning and mentoring activities because, at the moment, there is a lack of research and contradictory information about the participation and involvement of teachers. Issues are related to conceptions of mentoring. Respondents may not be aware of what particular practices are meant by mentoring. Conceptual analysis could provide better recognition of the different peer-learning practices.

At the local level, in cities, communalities, and schools more specifically, a definite prerequisite for PGM is the organisational level of support. PGM can be used as an approach for local school development and integrated as part of a development strategy. The main resources at the local level are the work time allocation and provision of meeting venues, or allowance for organising meetings. Moreover, teachers' professional development plans, agreed upon together with the principal, can be used as an instrument to make involvement in PGM more meaningful. Further, principals have the possibility to create an understanding of the strengths and challenges of teachers' professional development. Making a plan for development is not to give direct orders on how to proceed with personal development; rather, it is a tool for discussion and communication about topical issues in teachers' daily activities.

At the group level, the success of each group is created through social factors. An open atmosphere and mutual trust support fruitful dialogue that promotes beneficial learning and the sharing of experiences. Dispositions identified in Study 3 illuminate the characteristics of good mentors and good mentees, and the findings can be used for improving social interaction in mentoring meetings. The significance of social interaction gained more attention during the pandemic. The pandemic had a major impact on teachers' work and professional development. Based on a survey (OAJ, 2021), teachers reported that the pandemic has increased the workload, and mentoring is suggested as one solution to ensure support, especially for early career teachers.

6.2 Methodological considerations

The findings in this dissertation are based on a certain qualitative approach to research, the method of bricolage. As mentioned earlier, the aim of bricolage is to draw together divergent forms of perspectives and create a holistic interpretation of the views and findings. To assess the integrity of the scientific work in this dissertation, I will use Steinar Kvale's (1996) view of validity, in which he provides a set of notions that can be used to examine the validity of qualitative research. Kvale addressed the validity of qualitative research through notions of the *quality of craftsmanship*, *communication*, and *pragmatic proof*.

Kvale (1996) described the concept of *quality as craftsmanship* and as continual checking, questioning, and theoretically interpreting the findings during the investigation. Checking refers to a researcher's set of actions to ensure the

credibility, plausibility, and trustworthiness of the findings. Kvale pointed out that there are not any pre-established rules for the validity check; instead, there are different tactics, such as checking representativeness, triangulation, weighing the evidence, and getting feedback from informants. Checking the findings in this dissertation has been relatively easy for a particular reason. This research is located in a long history of research about PGM and also in a wider network of PGM research communities. Both the history and the network have provided useful sounding boards for weighing the findings. I do not see the outcomes of this dissertation as individual efforts, but more as collaborative work with the supervisors, co-authors, and research network who have provided useful articles and research literature to assess the work done in the dissertation. The previous notion was clarified at the time of writing Study 3, in which I was able to see the amount of research done within the network and about PGM.

In Kvale's concept of validity, questioning refers to researchers' ability to reflect on the process of the investigation, and for that, he suggests a certain order of questions. Questions of "what" and "why" need to be answered before "how"; the content and purpose of the investigation precede the method. Shortly answered, this investigation is about PGM as a practice (*what*), because the Finnish education system lacks a nationwide practice for teacher induction (*why*), and investigation happens through article-based doctoral dissertation (*how*). One of the main insights I gained during these doctoral studies was clarifying the answers to these questions. At the beginning of the doctoral studies, it was not evident that what kind of work of research this dissertation would be, but in a process of asking questions and refining answers, I have seen notable progress and development of the shape and quality of the research. There are two main reasons for the progress: first, I have been able to ask better questions, and (2) I have been able to provide better answers.

This connects' with Kvale's notion of theorising in the quality of craftsmanship. I admit that I have struggled more than enough with the concepts of mentoring. In the beginning, I thought that I had a relatively clear idea of what mentoring is, but right after diving into a pool of mentoring research, I realised that the concept of mentoring is very complex and is not easily explained. At the moment, I could say that I cannot explain what mentoring truly is, but I have a relatively good sense of what is related to mentoring. The reason why mentoring has been so difficult to explain is that the theory of practice architecture guided my thinking in a certain direction, and within that particular scope, many other related concepts are very similar, such as tutoring and guidance. What I have learned the most is the necessity of framing and simplifying in order to continue with the research.

Kvale's notion of communicative validity refers to testing the claims of research in a dialogue. First, the article-based dissertation also works well for the method of bricolage from the perspective of communicative validity, as the work is subjected to the scrutiny of the academic community in several phases, thus fitting well with Kvale's idea of continual process and dialogue. The sub-studies are self-assessed, supervisors of the candidate give comments and feedback,

especially in the draft phase, journal editors assess the proposed manuscript's suitability for publication, peer-reviewers provide their critiques and acceptance in the blind-review process, and finally, the scientific community can publicly read and weigh the contribution of the work in the final, published article. I see each phase as an opportunity for a dialogue to improve the quality of the research, and also to learn as an early-career researcher. One interesting remark during this work was the evolution of the theoretical frame. There has been a dialogue of its own about the theory of practice architectures in the international research group PEP, and based on that dialogue, there have been some ideas and terms that have either changed or disappeared. The fact that this theory has evolved at the same time as the period of my research has been both an advantage and a disadvantage. The advantage is that I have gained access to new conceptual tools to explore mentoring, but the problem has been that the theory of practice architectures has, in many ways, taken shape through ongoing theoretical discussions, simultaneously with the empirical study. The concern that emerged in the mind of a doctoral candidate was whether I would be able to keep up with the progress of this theoretical frame. The core of the theory remained relatively the same, and changes were usually more of a fine-tuning than radical transformations. Thus, my concerns have not been as major as I have anticipated.

The final notion that Kvale raised is pragmatic validity, in which the justification of a claim is replaced by its application. Application can be seen as the usefulness of the practical implications of the study in evoking actions to improve a certain situation. I think that for this study, pragmatic validity can be identified as short-term implications and long-term implications. In the short term, the practical validity of this study could be the strengthened discussion about the situation of teacher induction in Finland and possibly provide research-based knowledge for creating a solution for an agreement for nationwide teacher induction. The long-term implication could be that this study, among others, could lead to a situation in which the Finnish education system has a nationwide practice for teacher induction and teachers could participate in PGM meetings. In this case, the study's pragmatic validity can be best proven by time.

6.2.1 Reflections on the study and follow-up research

Several limitations of the study can be identified. Initial thoughts about limitations are related to the mentoring model. PGM is designed especially for the Finnish education system, and Finnish teachers in mind. For the aforementioned reasons, the model cannot be (easily) applied in different contexts, at least not without modification. If implemented in another education system, differences in educational and political contexts may create conditions in which PGM cannot be implemented as intended (Cavanagh & King, 2020). Further, as noted, mentoring is a complex and multifaceted concept and practice, and does have context-specific meanings. In other words, mentoring in one place may not be mentoring in another. This view is also present in the theoretical frame in which cultural-discursive arrangements prefigure our understanding and language about mentoring.

There are also limitations to the research itself. The respondents in this dissertation were teachers who participated in mentoring activities, which can highlight the positive aspects of PGM, skewing the interrogation and conclusions. This research did not include the views of respondents who have not participated in PGM, and a major part of teachers in Finland do not have induction support or mentoring at the beginning of their careers. It is equally important to understand why teachers do not participate or do not have the opportunity to participate in mentoring activities. Further, the findings could be enhanced by gathering information from non-participative respondents. In addition, the focus of this study was mostly on teachers' views on mentoring. Other professionals, such as principals, heads of education and culture departments in municipalities, decision makers and experts in labour market unions, have not been included. While this dissertation is teacher-focused, it would also be of great value to gather data from educational leaders and policymakers to have a better understanding of organising mentoring practices.

Moreover, this dissertation has focused on the Finnish model of PGM more on a conceptual level. This became evident especially in Study 2, in which the investigation was based on teachers' conceptions of the virtues and vices in PGM. The study provides an understanding of what teachers believe to be preferable or favourable ways of being and acting, but it does not reveal how teachers actually act in mentoring meetings. This set-up exemplifies the limitations of the conducted study, focusing on the conceptual factors of the PGM. Further, this leads to an idea for a follow-up study to examine the actual sayings, doings, and relations in PGM meetings.

This dissertation has followed the ethical principles of the Finnish National Board on Research Integrity (2019). Respondents in this dissertation were informed of the purpose, aims, and methods of the study, and researchers asked for a written consent before participation in the study, providing the information in a case of withdrawal. Only necessary information was gathered and saved as data from the responses, and quotes from the data were expressed through pseudonyms to protect the privacy of individual participants.

The strength of this study lies in its holistic approach as a qualitative study. This dissertation provides an in-depth interpretation of the Finnish model of PGM as a practice, and attempts to pinpoint the challenges of organising induction and mentoring in Finnish education. This dissertation can also be considered a contribution to the discussion about practices and practice architectures in the international pedagogy, education, and praxis network. Hopefully, the insights of this dissertation provide food for the thought in the discussions of mentoring and induction in Finland.

YHTEENVETO (FINNISH SUMMARY)

Tausta

Tutkimuksen lähtökohtana on avata opettajien mentoroinnin ja työhön perehdyttämisen tilannetta suomalaisessa koulujärjestelmässä. Tällä hetkellä opettajien perehdyttäminen on varsin niukkaa ja kapea-alaista sekä riippuvainen paikallisesta päätöksenteosta ja kuntien tilanteesta. Vertaisryhmämentorointia on kehitetty viimeisen kahdenkymmenen vuoden ajan vastaamaan opettajien perehdyttämisen tarpeeseen ja opettajien keskinäisen oppimisen tukemiseen. Käytäntö ei ole kuitenkaan saavuttanut pysyvää asemaa suomalaisessa koulujärjestelmässä.

Vertaisryhmämentorointi on lyhyesti ilmaistuna opettajien välistä vertaisoppimista keskustelun keinoin. Vertaisryhmämentorointi voi toimia uusille opettajille yhtenä työhön perehdyttämisen muotona ja kokeneille opettajille jatkuvan oppimisen ja ammatillisen kehittymisen foorumina. Vertaisryhmämentoroinnin taustalla on nykyaikainen konstruktivistinen oppimiskäsitys, jossa tietoa tulkitaan ja rakennetaan sosiaalisessa toiminnassa. Käytännössä vertaisryhmämentorointi tarkoittaa opettajien noin kuukausittain toistuvia opetustuntien jälkeisiä neljästä kahdeksaan hengen kokoontumisia, joissa he keskustelevat työhön liittyvistä asioista koulutetun vertaisryhmämentorin ohjaamana. Vertaisryhmämentorointia on edistetty useilla tutkimus- ja kehittämishankkeilla, mikä on tarkoittanut määräraikaista rahoitusta pätkittäisissä jaksoissa. Tutkimus- ja kehittämishankkeissa on havaittu myönteisiä tuloksia vertaisryhmämentoroinnin vaikutuksesta opettajien osaamisen kehittymiseen ja työhyvinvointiin. Hankkeiden yhtenä tavoitteena on ollut siirtymä projektirahoitetusta toiminnasta pysyväksi osaksi suomalaista koulujärjestelmää, mutta keskeisimmäksi ongelmaksi toiminnan jatkamiselle on muodostunut vähäinen rahoitus ja kansallisen sopimuksen puute mentoroinnin järjestämiseksi.

Tässä väitöstutkimuksessa vertaisryhmämentorointia tarkastellaan käytäntöarkkitehtuuriteorian näkökulmasta. Teorian ytimenä on käytäntöjen muodostuminen kielestä, toiminnasta ja sosiaalisista suhteista, joita mahdollistavat ja rajoittavat tietyt ennakoehdot, arkkitehtuurit. Tarkastelu tapahtuu käsitteellä tasolla tavoitteena kuvata vertaisryhmämentorointi käytäntönä osana suomalaista koulutusjärjestelmää. Tämän lisäksi väitöstyössä tutkitaan opettajien käsityksiä vertaisryhmämentoroinnista edellä mainitun teoreettisen viitekehyksen avulla.

Tutkimuskysymykset ja tutkimuksen toteutus

Tässä väitöskirjassa tarkastelen suomalaista vertaisryhmämentoroinnin käytäntöä käytäntöarkkitehtuuriteorian avulla. Vertaisryhmämentorointi on kehitetty varta vasten suomalaisille opettajille ja suomalaiseen koulujärjestelmään, ja käytännön tarkoituksena on tukea opettajien ammatillista kehittymistä ja työhyvinvointia. Väitöskirjan tutkimuskysymykset ovat seuraavat osatutkimuksittain.

Osatutkimus 1

1. Mitkä ovat opettajien käsitykset hyvästä mentoroinnista?
2. Mitkä ovat mentorointia ennaltamäärittävät käytäntöarkkitehtuurit?

Osatutkimus 2

Mitkä ovat opettajien käsitykset

1. mentorin ja
2. ryhmäläisen hyveistä?

Osatutkimus 3

1. Mitkä ovat olleet vertaisryhmämentoroinnin soveltamisen keskeisimmät piirteet?
2. Miten mentorit ja ryhmäläiset ovat kokeneet vertaisryhmämentorointiin osallistumisen?
3. Mikä on vertaisryhmämentoroinnin rooli koulutuksen hallinnollisissa rakenteissa?

Osatutkimus 4

1. Mitkä ovat tutkimusyhteistyötä määrittävät käytäntöarkkitehtuurit?

Tutkimuksen aineistot ja menetelmät

Tutkimus koostui neljästä osatutkimuksesta, joista kolme osatutkimusta olivat teemallista tarkastelua vertaisryhmämentoroinnista ja yksi osatutkimus liittyi tutkimuksen menetelmälliseen tarkasteluun. Väitöstutkimus on menetelmältään laadullinen ja painottuu vertaisryhmämentorointikäytännön käsitteelliseen tarkasteluun. Osatutkimusten 1 ja 2 aineisto koostui opettajien ryhmähaastatteluiden ja eläytymismenetelmällä kerätyillä kirjoitelma-aineistosta, osatutkimuksessa 3 tarkasteltiin 46 tutkimusartikkelia vertaisryhmämentoroinnista, ja osatutkimus 4 pohjautui neljän tutkimukseen osallistuneen tutkijan itsereflektiivisiin kirjoitelmiin.

Tulokset

Ensimmäisessä osatutkimuksessa selvitettiin opettajien käsitysten pohjalta keskeisimpiä tekijöitä vertaismentoroinnin ryhmätapaamisten järjestämiseen liittyen. Aineiston ja analyysin perusteella havaittiin seitsemän kategoriaa, jotka olivat keskeisimmät vertaisryhmämentoroinnin ryhmätapaamisten kannalta. Nämä seitsemän kategoriaa olivat *aika*, *fyysinen ympäristö*, *sosiaalinen ilmapiiri*, *vuorovaikutus*, *rentoutuminen*, *yhteinen sopiminen*, sekä *ryhmän kokoonpano*. Vertaisryhmämentoroinnin toteutumiseen liittyviä tekijöitä tuotiin näissä eri kategorioissa esiin sekä myönteisessä että kielteisessä muodossa. Esimerkiksi *aika* näyttyi myönteisenä, kun sitä nähtiin olevan riittävästi tapaamisten järjestämiseen. Vastaavasti kielteinen näkemys ajasta kuvasti ajan riittämättömyyttä esimerkiksi aiheiden käsittelyyn. Näiden kategorioiden avulla voidaan tarkastella toimintaa määritteleviä rakenteita muun muassa opettajien ammatillisen kehittymisen tuen toteuttamisessa ja suunnittelussa. Osatutkimuksen keskeisin johtopäätös on

se, että vertaismentoroinnin suunnittelussa tulee huomioida ennaltamäärittävät tekijät, jotta käytännöstä saadaan vaikuttavaa ja pysyvää.

Toisessa osatutkimuksessa tarkasteltiin opettajien käsityksiä mentorin tai ryhmäläisen hyveistä. Osatutkimuksen aineisto koostui opettajien ryhmähaastatteluista ja eläytymismenetelmällä kerätyistä kirjoituksista, joissa he toivat esiin omia näkemyksiään soveliaasta tai sopimattomasta tavoista toimia vertaisryhmämentoroinnissa. Käytäntöarkkitehtuuriteoriassa yksilön toimintaa kuvataan *habituksen* kautta, joka lyhyesti tarkoittaa yksilön olemisen tapaa. Osatutkimuksessa yksilön olemisen tarkasteluun hyödynnettiin aristoteelista hyveitä koskevaa filosofiaa, jossa oikeasuhtaisen toiminnan nähdään olevan kahden paheen, liiallisen ja liian vähäisen, välissä. Analyysin tuloksena muodostui yhteensä 19 ominaisuutta, jotka kuvaavat mentorin ja ryhmäläisen olemista ennakoivana, reagoivana ja vastavuoroisena sosiaalisena toimintana. Osatutkimuksen tärkein johtopäätös on ihmisten vertaisuus ja tasa-arvoisuus ryhmissä.

Kolmas osatutkimus oli luonteeltaan katsaus vertaisryhmämentorointiin tehtyyn tutkimukseen. Osatutkimuksessa käytiin läpi yhteensä 46 tutkimusartikkelia, jotka käsittelivät jollakin tapaa suomalaista vertaisryhmämentorointia. Tutkimuksen tulokset tiivistyivät taulukkoon, jossa havaintoja käsiteltiin yksilö/ryhmä -tasolla, yhteisö/organisaatio -tasolla, sekä kansallisella tasolla. Tulokset jaettiin kolmeen teemaan, jotka olivat toimivan mentoroinnin edellytykset, vertaisryhmämentoroinnin hyödyt ja seuraukset, sekä toiminnan haasteet. Tiettyjen edellytysten täytyessä, kuten opettajien yhteisen ajan löytyminen vertaisryhmämentoroinnille, toiminnalla nähdään olevan myönteistä vaikutusta ammatilliselle kehittymiselle. Toisaalta katsaus toi esiin myös vertaisryhmämentoroinnin keskeisimmät haasteet. Tällä hetkellä koulujärjestelmästä puuttuu yhteinen näkemys opettajien työhöntulovaiheen tuesta, sekä rahoituksen järjestämisestä. Näistä syistä johtuen vertaisryhmämentoroinnin toteutuminen on hajanaista ja jatkuvuus on epävarmalla pohjalla. Tilannetta voisi korjata koulutusjärjestelmän osapuolten ja sidosryhmien yhteisellä kansallisella sopimuksella, jossa sovitaan mentoroinnin järjestämisen vastuista ja rooleista.

Neljäs osatutkimus tarkasteli väitöskirjan tutkimusprosessia ja erityisesti ensimmäisten osatutkimusten aikana tehtyä yhteistyötä kahden australialaisen tutkijan kanssa. Osatutkimus oli autoetnografinen katsaus tutkimusryhmän yhteistyöhön ja avasi tarkemmin tutkimustyön luonnetta. Yhteistyö tutkimusryhmässä ei automaattisesti tarkoita parempaa tai luotettavampaa tutkimusta, vaan prosessia tulee arvioida kriittisesti. Moniäänisyys ryhmässä ei välttämättä johda suoraan syvempään ymmärykseen vaan sen sijaan voi olla jopa hajanainen koelma ajatuksia. Tutkimusyhteistyö vaatii neuvottelua ja keskustelua siitä, miten tutkimuksessa nousseita ajatuksia ja ideoita työstetään, jotta niistä saadaan lopulta työstettyä julkaisukelpoisia havaintoja. Vertaisryhmämentoroinnin tavoin myös tutkimusyhteistyötä mahdollistavat tai rajoittavat käytäntöarkkitehtuurit. Tästä yhtenä esimerkkinä on työskentelyssä käytetty kieli, joka tämän väitöstutkimuksen tapauksessa oli englanti. Natiivipuhujat ja englantia toisena kielinä puhuvat olivat tämän tutkimuksen yhteistyössä erilaisessa asemassa, ja kieli vaikutti tutkijoiden kykyyn tuoda omia ajatuksiaan esiin. Toisaalta yhteinen kieli

mahdollisti erilaisten ihmisten välisen keskustelun, joka ei onnistuisi esimerkiksi suomen kieltä käytettäessä. Tutkimuksen tärkein anti tiivistyy ajatukseen, että ei pidä tehdä etukäteen liian voimakkaita oletuksia paremmasta tai luotettavammasta tutkimuksesta tietyn asetelman perusteella, vaan tuoda kriittisesti ja avoimesti esiin tutkimusprosessia määrittävät ennakkoehdot. Toisin sanoen, kansainvälinen tutkimusryhmä ei takaa parempaa tutkimusta, mutta mahdollistaa erilaisia tapoja tehdä tutkimusta, joka voi johtaa hyödyllisiin havaintoihin ja päätelmiin.

Diskussio

Tutkimuksen tavoitteena oli tarkastella vertaisryhmämentoroinnin käytäntöä osana suomalaista koulutusjärjestelmää. Vertaisryhmämentorointia on kehitetty jo parin vuosikymmenen ajan tukemaan uusien opettajien perehdyttämistä ja tukemaan kokeneiden opettajien ammatillista kehittymistä. Vertaisryhmämentoroinnilla voidaan tukea opettajien identiteetin kehittymistä, opettajien työyhteisöjen kehittymistä, sekä koulujärjestelmän käytäntöjen kriittistä tarkastelua.

Tällä hetkellä mentoroinnin toteutuminen suomalaisessa koulujärjestelmässä on hajanaista, eikä välttämättä edes jokaisen opettajan saatavilla (Taajamo & Puhakka, 2019). Vertaisryhmämentoroinnin toteuttaminen onnistuu varsin pienillä panostuksilla, sillä opettajat tarvitsevat ainoastaan noin kerran kuukaudessa yhteisen ajan päästä keskustelemaan työhönsä liittyvistä asioista yhdessä. Ongelma ei siis ole käytännön vaatimuksissa, vaan sen mahdollistavissa ja rajoitavissa rakenteissa. Tällä hetkellä koulujärjestelmässä ei ole osapuolten välillä yhteistä näkemystä siitä, kuinka mentorointia tulisi toteuttaa valtakunnallisesti ja kuinka sitä tulisi rahoittaa. Toiminnan toteutuminen riippuu tällä hetkellä siis paikallisista opetuksenjärjestäjistä ja paikallisesta päätöksenteosta. Jotta mentoroinnin tilannetta saadaan kohennettua, tarvitaan muutosta mentoroinninkäytäntöjä määrittäviin materiaalis-taloudellisiin, kulttuuri-diskursiiviin ja sosiaalis-poliittisiin rakenteisiin.

Tilanteen ratkaisemiseksi mentorointi tulisi saada osaksi valtakunnallista opetusalan sopimuskokonaisuutta, jossa määritetään koulujärjestelmän osapuolten vastuut ja velvollisuudet mentoroinnin järjestämisessä. Tämä edellyttäisi myös rahoituksen kohdentamista toiminnalle. Edellä mainitut asiat tarkoittasivat muutosta erityisesti käytännön materiaalis-taloudellisiin ja sosiaalis-poliittisiin rakenteisiin. Toisaalta, vertaisryhmämentorointi on vain osa opettajien ammatillista kehittymistä, eikä sitä voida pitää ainoana ratkaisuna mentoroinnin järjestämisestä tai opettajien vertaisoppimisen edistämiseksi. Suomalaisessa koulujärjestelmässä on hyödynnetty useita erilaisia vertaisoppimisen muotoja ja näin tulee olla jatkossakin. Tueksi tarvitaan kuitenkin ohjausta ja koordinaatiota, jotta vältetään päällekkäisesti tai hajanaisesti järjestettyä opettajien vertaisoppimista. Tästä syystä koulujärjestelmän osapuolten yhteinen näkemys ja näkemyksen vahvistaminen sopimuksella edesauttaisivat opettajien välistä oppimista ja myös vertaisryhmämentoroinnin toteutumista.

REFERENCES

- Aldrich, R. (1999). The apprentice in history. In P. Ainley & H. Rainbird (Eds.) *Apprenticeship: Towards a new paradigm of learning* (pp. 14–24). New York, NY: Routledge.
- Ambrosetti, A., & Dekkers, J. (2010). The interconnectedness of the roles of mentors and mentees in pre-service teacher education mentoring relationships. *Australian Journal of Teacher Education*, 35(6), 42–55.
- Anderson, E. M., & Shannon, A. L. (1988). Toward a conceptualization of mentoring. *Journal of Teacher Education*, 39(1), 38–42.
- Applefield, J. M., Huber, R., & Moallem, M. (2000). Constructivism in theory and practice: Toward a better understanding. *The High School Journal*, 84(2), 35–53.
- Aspfors, J., & Bondas, T. (2013). Caring about caring: newly qualified teachers' experiences of their relationships within the school community. *Teachers and Teaching*, 19(3), 243–259.
- Bickmore, D. L., & Bickmore, S. T. (2010). A multifaceted approach to teacher induction. *Teaching and Teacher Education*, 26(4), 1006–1014.
- 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* (pp. 45–75) Gävle: Vali Press.
- Cardiff, S. (2012). Critical and creative reflective inquiry: surfacing narratives to enable learning and inform action. *Educational Action Research*, 20(4), 605–622.
- Carr, W., & Kemmis, S. (1986). *Becoming critical: Education, knowledge and action research*. London: Routledge-Falmer.
- Cavanagh, M., & King, A. (2020). Peer-group mentoring for primary pre-service teachers during professional experience. *Asia-Pacific Journal of Teacher Education*, 48(3), 287–300.
- D'Abate, C. P., Eddy, E. R., & Tannenbaum, S. I. (2003). What's in a name? A literature-based approach to understanding mentoring, coaching, and other constructs that describe developmental interactions. *Human Resource Development Review*, 2(4), 360–384.
- Dominguez, N., & Hager, M. (2013). Mentoring frameworks: synthesis and critique. *International Journal of Mentoring and Coaching in Education* 2 (3). 171–188.
- Eby, L. T., Rhodes, J. E., & Allen, T. D. (2007). Definition and evolution of mentoring. In T.D. Allen & L. T. Eby (Eds.) *The Blackwell handbook of mentoring: A multiple perspectives approach* (pp. 7–20). Malden, MA: Blackwell.
- Estola, E., Heikkinen, H.L.T. and 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: 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://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2001:0678:FIN:EN:PDF>
- European Commission (2007). Improving the quality of teacher education. Brussels, Belgium: Author. Retrieved from https://webapi2016.eesc.europa.eu/v1/documents/ces75-2008_ac_en.doc/content
- European Commission (2010). Developing coherent and system-wide induction programmes for beginning teachers: A handbook for policymakers. Brussels, Belgium: Author.
- Finnish National Agency for Education. (2018). Finnish education in nutshell. Brochure. Retrieved from https://www.oph.fi/sites/default/files/documents/finnish_education_in_a_nutshell.pdf
- Finnish National Agency for Education. (2020). Opettajat ja rehtorit Suomessa 2019: Esi- ja perusopetuksen opettajat. [Teachers and principals in Finland 2019: Teachers of pre-primary and basic education.] Reports and reviews 2020:11. Finnish National Agency for Education. Retrieved from https://www.oph.fi/sites/default/files/documents/opettajat_ja_rehtorit_suomessa_2019_esi-ja_perusopetuksen_opettajat.pdf
- Finnish National Board on Research Integrity. (2019). The ethical principles of research with human participants and ethical review in the human sciences in Finland. Finnish National Board on Research Integrity TENK guidelines 2019. Publications of the Finnish National Board on Research Integrity TENK 3/2019. Helsinki.
- Fox, R. (2001). Constructivism examined. *Oxford review of education*, 27(1), 23–35.
- Geelan, D. R. (1997). Epistemological anarchy and the many forms of constructivism. *Science & Education*, 6(1-2), 15–28.
- Geeraerts, K., Tynjälä, P., & Heikkinen, H. L. (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.
- Gordon, E. E. (1990). *Centuries of tutoring: history of alternative education in America and western Europe*. Lanham: University Press of America.
- Guldberg, K., & Mackness, J. (2009). Foundations of communities of practice: Enablers and barriers to participation. *Journal of Computer Assisted Learning*, 25(6), 528–538.
- Haapaniemi, J., Venäläinen, S., Malin, A., & Palojoki, P. (2021). Teacher autonomy and collaboration as part of integrative teaching—Reflections on the curriculum approach in Finland. *Journal of Curriculum Studies*, 53(4), 546–562.

- Habermas, J. (1984). *A Theory of Communicative Action: Vol 1. Reason and the Rationalization of Society* (trans.) by T. McCarthy, Beacon Press, Boston, MA.
- Handal, G., & Lauvås, P. (1983). *På egne vilkår* [On your own terms]. Oslo: Cappelen.
- Handal, G. & Lauvås, P. (1990). *Veiledning og praktisk yrkesteori*. [Mentoring and practical professional theories]. Oslo: Cappelen.
- Hardy, I., Heikkinen, H., Pennanen, M., Salo, P., & Kiilakoski, T. (2021). The 'spirit of the times': Fast policy for educational reform in Finland. *Policy Futures in Education*, 19(7), 770–791.
- Hargreaves, A., & Fullan, M. (2000). Mentoring in the new millennium. *Theory into Practice*, 39(1), 50–56.
- Heikkinen, H.L.T. (2002). Whatever is narrative research? In R. Huttunen, H.L.T. Heikkinen & L. Syrjälä (Eds.) *Narrative research: Voices of teachers and philosophers* (pp. 1–13). Jyväskylä: SoPhi.
- Heikkinen, H.L.T. (2021). Uusien opettajien mentorointi on vihdoin saatava kuntoon. HS. 19.4.2021. Retrieved from <https://www.hs.fi/mielipide/art-2000007926776.html>
- Heikkinen, H. L., Aho, J., & Korhonen, H. (2015). Ope (ei) saa oppia. *Opettajankoulutuksen jatkumon kehittäminen*. Jyväskylä: Jyväskylän yliopisto, Koulutuksen tutkimuslaitos.
- Heikkinen, H., Jokinen, H., & Tynjälä, P. (2012). *Peer-group mentoring for teacher development*. London: Routledge.
- Heikkinen, H. L., Jokinen, H., & Tynjälä, P. (2010). *Verme: Vertaismentorointi työssä oppimisen tukena*. Helsinki: Kustannusosakeyhtiö Tammi.
- Heikkinen, H., Jokinen, H., Markkanen, I., & Tynjälä, P. (2012). *Osaaminen jakoon. Vertaisryhmämentorointi opetuslalla*. [Sharing know-how: Peer-group mentoring in education]. Jyväskylä: PS-kustannus.
- 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: Vali Press.
- Heikkinen, H., Jokinen, H., & Tynjälä, P. (2010). *Vertaisryhmämentorointi työssä oppimisen tukena*. Helsinki: Tammi.
- Heikkinen, H. L., 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* (pp. 107–128). Oslo: Cappelen Damm Akademisk.
- Heikkinen, H. L., Tynjälä, P., & Kiviniemi, U. (2011). Integrative Pedagogy in Practicum. In M. Mattson, T.V. Eilertsen & D. Rorrison (Eds.) *A practicum turn in teacher education* (pp. 91-112). Rotterdam: Sense Publishers.
- Hobson, A. J., Ashby, P., Malderez, A., & Tomlinson, P. D. (2009). Mentoring beginning teachers: What we know and what we don't. *Teaching and Teacher Education*, 25(1), 207–216.

- Hudson, P. (2004). Specific mentoring: a theory and model for developing primary science teaching practices, *European Journal of Teacher Education*, 27(2), 139–146.
- Huizing, R. L. (2012). Mentoring together: A literature review of group mentoring. *Mentoring & Tutoring: Partnership in Learning*, 20(1), 27–55.
- Huttunen, R., & Heikkinen, H. L. (2004). Teaching and the dialectic of recognition. *Pedagogy, Culture and Society*, 12(2), 163–174.
- Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: A critical review of the research. *Review of Educational Research*, 81(2), 201–233.
- Irby, B.J. & Boswell, J. (2016). Historical print context of the term “mentoring”. *Mentoring & Tutoring: Partnership in Learning*, 24(1), 1–7.
- Jacobi, M. (1991). Mentoring and undergraduate academic success: A literature review. *Review of Educational Research*, 61(4), 505–532.
- Jokinen, H., Taajamo, M., Miettinen, M., Weissmann, K., Honkimäki, S., Valkonen, S., & Välijärvi, J. (2013). Pedagoginen asiantuntijuus liikkeessä – hankkeen tulokset.[Mobility among pedagogical experts – research findings]. University of Jyväskylä. Finnish Institute of Educational Research. Reports, 50.
- Jokinen, H. & Välijärvi, J. (2006). Making Mentoring a Tool for Supporting Teachers’ Professional Development. In R. Jakku-Sihvonen & H. Niemi (Eds.) *Research-based Teacher Education in Finland. Reflections by Finnish Teacher Educators* (pp. 89–101). Research in Educational Sciences 25. Turku: Finnish Educational. Research Association.
- Kakkori, L., & Huttunen, R. (2007). Aristotle and pedagogical ethics. *Paideusis*, 16(1), 17–28.
- Kemmis, S. (2022). *Transforming Practices: Changing the world with the theory of practice architectures*. Singapore: Springer.
- Kemmis, S., & Edwards-Groves, C. (2018). *Understanding education. History, politics and practice*. Singapore: Springer.
- Kemmis, S., & Smith, T. J. (2008). *Enabling praxis: Challenges for education*. Rotterdam: Sense.
- Kemmis, S., Heikkinen, H. L., Fransson, G., Aspfors, J., & Edwards-Groves, C. (2014a). Mentoring of new teachers as a contested practice: Supervision, support and collaborative self-development. *Teaching and Teacher Education*, 43, 154–164.
- Kemmis, S., Wilkinson, J., Edwards-Groves, C., Hardy, I., Grootenboer, P., & Bristol, L. (2014b). *Changing practices, changing education*. Springer Science & Business Media.
- Kincheloe, J. L. (2011). Describing the bricolage: Conceptualizing a new rigor in qualitative research. In K. Hayes, S.R. Steinberg & K. Tobin (Eds.) *Key works in critical pedagogy* (pp. 177–189). Rotterdam: Brill.
- Kuhn, T. S. (1962). *The structure of scientific revolutions*. University of Chicago Press: Chicago.

- Kvale, S. (1996). *InterViews. An Introduction to Qualitative Research Interviewing*. Thousand oaks, CA: Sage Publications.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge university press.
- Liu, C. H., & Matthews, R. (2005). Vygotsky's Philosophy: Constructivism and Its Criticisms Examined. *International education journal*, 6(3), 386–399.
- Martin, A. D., & Kamberelis, G. (2013). Mapping not tracing: Qualitative educational research with political teeth. *International journal of qualitative studies in education*, 26(6), 668–679.
- Martin, A., & Pennanen, M. (2015). Mobility and transition of pedagogical expertise in Finland. Research Reports (51). Jyväskylä: Finnish Institute for Education Research
- Martin, A., Rautiainen, A. M., Tarnanen, M., & Tynjälä, P. (2022). Teachers as writing students: narratives of professional development in a leisure-time creative writing community. *Teacher Development*, 26(3), 432–451.
- Ministry of Education and Culture. (2016). Teacher education in Finland. Info brochure. Retrieved from <https://okm.fi/documents/1410845/4150027/Teacher+education+in+Finland/57c88304-216b-41a7-ab36-7ddd4597b925/Teacher+education+in+Finland.pdf?t=1489994046000>
- Ministry of Education and Culture. (2022). Teacher Education Development Program 2022-2026. Info brochure. Retrieved from <https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/164179/TeacherEducationDevelopmentProgramme.pdf?sequence=1&isAllowed=y>
- Moilanen, P. (2002). Narrative, truth and correspondence. A defence. In R. Huttunen, H.L.T. Heikkinen & L. Syrjälä (Eds.) *Narrative research: Voices of teachers and philosophers* (pp. 91–104). Jyväskylä: SoPhi.
- Mullen, C. A., & Klimaitis, C. C. (2021). Defining mentoring: a literature review of issues, types, and applications. *Annals of the New York Academy of Sciences*, 1483(1), 19–35.
- Niemi, H. (2017). Towards Induction: Training Mentors for New Teachers in Finland. In B. Hudson (ed.) *Overcoming Fragmentation in Teacher Education Policy and Practice*. The Cambridge Education Research series. Cambridge, UK: Cambridge University Press.
- Niemi, H., Erma, T., Lipponen, L., Pietilä, M., Rintala, R., Ruokamo, H., Saarivirta, T., Moitus, S., Frisk, T., Stylman, V. & Huhtanen, M. (2018). Maaailman parhaiksi opettajiksi: Vuosina 2016-2018 toimineen Opettajankoulutusfoorumien arviointi. Koulutuksen arviointikeskus 27:2018. Helsinki: Kansallinen koulutuksen arviointikeskus.
- OAJ. (2021). Dramaattinen muutos: Jo kuusi kymmenestä opettajasta harkitsee alanvaihtoa. [Dramatic shift: Six in ten Finnish teachers are now considering career change]. Trade Union of Education, OAJ. News article. Retrieved from: <https://www.oaj.fi/en/news/news-and-press-releases/2021/alanvaihtokysely-09-21/>

- OED Online, n.d. Oxford University Press. "Mentoring, n." www.oed.com/view/Entry/251875 Accessed 28 May 2018.
- O'loughlin, M. (1992). Rethinking science education: Beyond Piagetian constructivism toward a sociocultural model of teaching and learning. *Journal of research in science teaching*, 29(8), 791–820.
- Olsen, K.-R., Bjerkholt, E. M. & Heikkinen, H. L. T. (2020). Introduction: Mentoring and Induction in the Nordic Countries. In K.-R. Olsen, E. M. Bjerkholt & H. L. T. Heikkinen (Eds.) *New teachers in Nordic countries – ecologies of mentoring and induction* (pp. 11–26) Oslo: Cappelen Damm Akademisk.
- Orland-Barak, L. (2012). *Learning to Mentor-as-praxis: Foundations for a curriculum in teacher education*. New York, NY: Springer.
- Pennanen, M., Taajamo, M., Risku, M., Rautopuro, J. & Häkkinen, P. 2021. Tutkimus perusopetuksen tutoropettajatoiminnasta ja sen vaikutuksista. [Research of tutor teacher activities and its effects in basic education]. Finnish National Agency for Education, Reports and reviews 2021:7. Retrieved from https://www.oph.fi/sites/default/files/documents/Tutkimus_perusopetuksen_tutoropettajatoiminnasta_ja_sen_vaikutuksista.pdf
- Platt, J. 2002. "The History of the Interview." In J. Gubrium and J. Holstein (Eds.) *Handbook of Interview Research: Context and Method* (pp. 33–54). Thousand Oaks, CA: Sage.
- Polanyi, M. (1958). *Personal Knowledge: Towards a Post-Critical Philosophy*. London: Routledge.
- 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.
- Roberts, A. (1999). Homer's Mentor: Duties fulfilled or Miscontrued? *History of Education Society Bulletin*, (64), 81–90.
- Sandelowski, M. & Barroso, J. (2007). *Handbook for Synthesizing Qualitative Research*. Springer Publishing Company.
- Shanks, R., Tonna, M.A., Krøjgaard, F., Annette Paaske, K., Robson, D., & Bjerkholt, E. (2020). A comparative study of mentoring for new teachers. *Professional Development in Education*, 1–15.
- Sommer, C. A. (2009). Gathering Wool: Reflections on Conducting Qualitative Research. *Journal of Poetry Therapy: The Interdisciplinary Journal of Practice, Theory, Research and Education* 22 (1). 11–20.
- SOOL. 2019. Selvitys opettajien perehdytyksestä. [Survey about teacher induction]. Teacher Student Union of Finland – SOOL. Retrieved: https://www.sool.fi/site/assets/files/3335/opettajien_perehdytys_selvitys_2019_alustavat_tulokset.pdf
- Taajamo, M., & Puhakka, E. (2019). Opetuksen ja oppimisen kansainvälinen tutkimus TALIS 2018. Perusopetuksen vuosiluokkien 7-9 ensituloksia, osa 1. [Teaching and learning international Survey TALIS 2018. First results of

- Basic education in grades 7-9]. Finnish National Agency for Education, Reports and reviews 2019:8.
- Taylor, P. (1998) Constructivism: Value added, In: B. Fraser & K. Tobin (Eds), *The International handbook of science education* (pp. 1111–1123). Dordrecht, Netherlands: Kluwer Academic.
- Tirri, K. (2014). The last 40 years in Finnish teacher education. *Journal of Education for Teaching*, 40(5), 600–609.
- Tonna, M. A., Bjerkholt, E., & Holland, E. (2017). Teacher mentoring and the reflective practitioner approach. *International Journal of Mentoring and Coaching in Education* 6(3). 210–227.
- Toom, A. (2006). *Tacit Pedagogical Knowing At the Core of Teacher's Professionality*. Helsinki: Yliopistopaino.
- Tynjälä, P. (1999). Towards expert knowledge? A comparison between a constructivist and a traditional learning environment in the university. *International Journal of Educational Research*, 31(5), 357–442.
- Tynjälä, P. (2008). Perspectives into learning at the workplace. *Educational Research Review*, 3(2). 130–154.
- Tynjälä, P., & Gijbels, D. (2012). Changing world: Changing pedagogy. In P. Tynjälä, M-L Stenström & M. Saarnivaara (Eds.) *Transitions and transformations in learning and education*. Dordrecht: Springer. 205–222.
- Tynjälä, P. & Heikkinen, H., L., T. 2011. Beginning teachers' transition from pre-service education to working life. *Zeitschrift für Erziehungswissenschaft*, 14(1), 11–34.
- Tynjälä, P., Heikkinen, H., & Kallio, E. (2022). Integrating work and learning in higher education and VET: Theoretical point of view. In M. Malloch, L. Cairns, K. Evans & B. N. O'Connor (Eds.) *The SAGE Handbook of Learning and Work*, 62.
- Tynjälä, P., Virolainen, M., Heikkinen, H. L., & Virtanen, A. (2020). Promoting Cooperation between Educational Institutions and Workplaces : Models of Integrative Pedagogy and Connectivity Revisited. In C. Aprea, V. Sappa, & R. Tenberg (Eds.) *Konnektivität und lernortintegrierte Kompetenzentwicklung in der beruflichen Bildung / Connectivity and Integrative Competence Development in Vocational and Professional Education and Training (VET/PET)* (pp. 19-40). Franz Steiner Verlag. *Zeitschrift für Berufs- und Wirtschaftspädagogik : Beihefte (ZBW-B)*, 29.
- Yasnitsky, A., & Van der Veer, R. (2015). *Revisionist revolution in Vygotsky studies: The state of the art*. Routledge.
- Väljjarvi, J., & Heikkinen, H. L. (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. 47-56). London: Routledge.
- Wallin, A., Koro-Ljungberg, M., & Eskola, J. (2019). The method of empathy-based stories. *International Journal of Research & Method in Education*, 42(5), 525-535.

- 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.
- Watts, S. (2014). User Skills for Qualitative Analysis: Perspective, Interpretation and the Delivery of Impact. *Qualitative Research in Psychology 11*(1). 1–14.
- Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks: Sage.
- Zeichner, K. M. (1983). Alternative paradigms of teacher education. *Journal of Teacher Education, 34*(3), 3–9.



ORIGINAL PUBLICATIONS

I

WHAT IS 'GOOD' MENTORING? UNDERSTANDING MENTOR-ING PRACTICES OF TEACHER INDUCTION THROUGH CASE STUDIES OF FINLAND AND AUSTRALIA

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What is ‘Good’ Mentoring? Understanding mentoring practices of teacher induction through case studies of Finland and Australia

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What is ‘Good’ Mentoring? Understanding mentoring practices of teacher induction through case studies of Finland and Australia

Mentoring is a practice widely utilised to support new teachers. However, in locally formed systems, the practice of mentoring is conditioned by traditions and arrangements specific to the site. To understand ‘good’ mentoring, these local arrangements cannot be ignored. In this article the theory of practice architectures is employed to make explicit the prefiguring arrangements of mentoring practices in Finland and NSW Australia. The findings suggest that mentoring practices are shaped by their ontological specificity and this makes reproducing mentoring practices in different sites problematic. Explicating the prefiguring architectures of practices is critical to understanding the contested nature of mentoring.

Keywords: mentoring; teacher induction; new teachers; social practice; practice theory;

Introduction

The need to support the professional development of new teachers is a pressing challenge for education systems in many countries (Long, 2009; Huizing, 2012; Kane & Francis, 2013). In the research literature, the topic is often examined through a variety of lenses, such as ‘mentoring’ of newly qualified teachers or ‘teacher induction’.

Mentoring has become the most popular form of teacher induction and this has influenced the synonymous use of mentoring and induction (Ingersoll & Smith, 2004).

However, the loose utilisation of these terms in the literature suggests a conceptual confusion about their employment. Hence, mentoring has been described as ‘a practice, which is ill-defined, poorly conceptualized and weakly theorized’ (Colley, 2003, 13; Bozeman & Feeney, 2007).

The above are serious criticisms which this article attempts to address by conceptualising and theorising mentoring ontologically as a social practice, a ‘[...] coherent and complex form of socially established co-operative human activity’

(MacIntyre 2007, 187) which is constituted '[...]in historical and social context[s] that give... structure and meaning to what people do' (Wenger 1998, 47). The notion of mentoring as anchored within and prefigured by the specific contexts or sites (c.f., Schatzki's notion of site ontologies, 2003) adds to a growing literature theorising mentoring as social practice (Kemmis, Heikkinen, et al. 2014; Kemmis, Edwards-Groves, et al. 2012, Kemmis & Heikkinen, 2012, Aspfors, 2012).

In this article, we examine how particular kinds of practice arrangements or *practice architectures* (Kemmis and Grootenboer, 2008) prefigure distinctively different purposes, understandings and manifestations of 'good mentoring' practice in a Finnish and New South Wales (NSW), Australian education site respectively. We have chosen these two locales for comparison and contrast as they illustrate the very different purposes, which underline mentoring practices. For instance, formal mentoring of NSW beginning teachers forms one response to high levels of new teacher attrition (a deficit view of new teachers), compared to Finland with high levels of new teacher retention, where mentoring is viewed as an ongoing enrichment process for beginning and experienced teachers alike (an asset view of new teachers). We posit that the cultural, semantic, material and political differences in educational systems and national settings such as NSW, Australia and Finland create these different purposes for, and understandings of mentoring. Consequently, they create differing mentoring practices. To understand the differences and similarities of mentoring practices between these two different sites and how this process occurs, we employ new insights in the field of practice theory (c.f., Kemmis, Wilkinson, et al, 2014; Wilkinson & Kemmis, forthcoming).

The primary aim of our paper is to demonstrate how attention to the *arrangements* of practices and the *distinctiveness* of differing sites can contribute to

richer theorisations of mentoring and in turn, advance both scholarship and practice in the field. A secondary aim is methodological. We have devoted a significant amount of time in the article to an articulation of our analytical processes given the ‘underdone’ nature of much qualitative analysis in favour of an explication of the findings. This attention to methodology is an attempt to complement and add to our primary research aim, of more richly theorising mentoring as a social practice.

In the remainder of the article, we sketch the literature on mentoring, focusing on the varying conceptualisations and approaches to mentoring research and concluding with our key research questions. Next, we describe the two research settings and explicate our methodological approach. We then examine empirical data derived from case studies of peer-group mentoring practice conducted in a Finnish education district, and a case study of more traditional, dyadic mentoring practices conducted in a small rural high school in NSW, Australia. We conclude with a discussion of the implications of these studies for mentoring theory and practice.

Considerations of ‘what is mentoring?’

Before answering the question ‘what is good mentoring?’ it is crucial to know what mentoring is about. Mentoring has been studied in several academic fields, all of which have contributed to different understandings of the term. Hence, in order to investigate the practices of ‘good mentoring’, we need to understand the contested nature of mentoring and the conceptual differences underpinning its practices.

One way to answer the question of ‘what is mentoring’ is to examine the etymology of the word. The modern word *mentor* comes from the Fénelon's *Les Aventures de Télémaque* (1699), where the character *Mentor* is based on the original character of *Μέντωρ* (mentor in ancient Greek) in Homer's *Odyssey*. In the story of *Odyssey*, the goddess Athena appears in the likeness of Mentor to guide and advise

Odysseus' son Telemachus to find his father. According to the Oxford English Dictionary these two stories have shaped the meaning and definition of *mentor*, which generally means a person who acts as a guide or advisor for a younger and less experienced person. In the *Odyssey*, Mentor seems to possess divine knowledge and superior wisdom; also, in Fénelon's story Mentor's role as a counsellor is emphasised. Contemporarily, the word mentor has gained multiple meanings: a person who offers support and guidance to another; an experienced and trusted counsellor or; a patron; a sponsor (Oxford University Press 2014).

The etymology for the word *mentor* actually goes beyond the ancient Greek. It is suggested that the word mentor is an agent noun of *mentos* (intent, purpose, spirit, passion) descended from Proto-Indo-European word *mon-eyo-* (cf. Sanskrit *man-tar-* 'one who thinks', Latin *mon-i-tor*, 'one who admonishes') and causative form of root *men-* 'to think' (Harper 2014). This etymological background opens up a new and different way of thinking about the meanings of mentor and mentoring. The person who is acting as a mentor is one who is thinking and reflecting, and this forms the basis of his/her advice. The etymology of the word mentor still possesses the element of authority or superiority in the sense of 'one who admonishes'. Admonition is usually given by a person who has some power over another person, for instance, an officer admonishing a citizen, a parent admonishing a child or a teacher admonishing a pupil. Over time this binary of superior-inferior has significantly influenced the meaning of mentoring, disguising the nature and work of mentoring as thoughtful and reflective actions.

Traditionally mentoring is described as a relationship between two persons, a protégé and a mentor. The traditional understanding of mentoring is problematic in the modern world, because it connotes a conservative view of learning, linear transmission

of knowledge and asymmetrical power relations between participants (Tynjälä & Heikkinen 2012; Angelique, Kyle & Taylor 2002). For beginning teachers, this conceptualisation suggests a unidirectional socialisation into existing cultures of schooling, primarily focussed on situational adjustment to a new school environment (Richter et al. 2013).

Current socio-constructivist and socio-cultural views of learning have emphasized the importance of social interaction, social learning environments and participation in communities of practice (Tynjälä & Gijbels 2012, 210). From this point of view mentoring can be conceived of as a more agentic practice, that is, active construction of knowledge in a social environment rather than merely transmitting knowledge from one person to another (Richter et al. 2013). In the sense of knowledge construction or knowledge transformation, mentoring is an asymmetrical but collaborative relationship, which facilitates exchange and the generation of ideas and may lead to change and innovations in the prevailing situation. The mentor's role is to provide opportunities for growth and development.

Contemporary research suggests new conceptualizations of mentoring that make use of socio-constructivist theories of learning such as *co-mentoring*, *mutual mentoring*, *collaborative mentoring*, *peer collaboration*, *critical constructivist mentoring*, *dialogical mentoring* and *reciprocal mentoring* (Tynjälä & Heikkinen 2012, 24). These new conceptualisations also suggest new practices centred on group formations such as *group mentoring*, *peer mentoring*, *mentoring circles*, and *peer-group mentoring* (Fyn 2013, Huizing 2012; Bozeman & Feeney 2007; Darwin & Palmer 2009; Kemmis & Heikkinen 2012). These mentoring practices are reported to have the potential to develop and transform the culture of workplaces, while assisting with personal and professional development (Darwin & Palmer 2009, 127).

While having much potential, the concept of mentoring still lacks clear definition or description (Roberts, 2000). There are number of other concepts which are closely related to mentoring, such as apprenticeship, coaching, and tutoring (Glazer & Hannafin 2006; Murphy et al. 2005; Topping 2005). To add to this conceptual confusion, mentoring is also studied in several academic fields, such as psychology (e.g., American Psychological Association, 2014), social psychology (e.g., Hu, Thomas & Lance, 2008), business management (e.g., Higgins & Kram, 2001), human resource development (e.g., D'Abate, Eddy & Tannenbaum, 2003), or from the perspective of social cognitive career theory (e.g., Yang, Hu, Baranik & Ling, 2013). In these various research traditions: the purpose and aims of mentoring are articulated differently; mentoring is enacted differently and people relate to one another differently in various forms of mentoring (Kemmis, Heikkinen, et al. 2014), thus enabling a range of understandings of mentoring and ensuring its nature as a contested concept.

Theory of practice architectures for understanding variety in mentoring

In this article, we draw on social-constructivist theories of learning to examine mentoring and so doing, emphasize mentoring's inherent *sociality as a practice*. Further, in order to understand the various ways in which mentoring as a contested but always social practice is taken up and enacted in our Finnish and Australian cases, we employ the lens of *practice architectures* (Kemmis and Grootenboer, 2008). This theoretical lens emphasizes the differing *arrangements* that shape the intersubjective spaces in which participants such as mentors and mentees encounter one another. It thus assists in making sense of how and why particular conceptions of mentoring practices may be taken up in very distinctive ways in differing sites of practice (c.f., Kemmis, Heikkinen, et al., 2014). Participants in the practice encounter one another in social spaces which form the arrangements that prefigure (though not deterministically) the

practices within those intersubjective spaces. This emphasis on the *prefiguring* of mentoring practices – the notion that we are not solely shaped by/shape individuals (such as in a community of practice) but that the practices themselves shape us in the social dimensions in which we encounter one another – marks this lens as distinctive from communities of practice or professional learning communities (Kemmis, Wilkinson, et al. 2014).

The theory of practice architectures draws attention to the three kinds of intersubjective spaces in which participants in mentoring practices encounter one another: i.e., through *language*, through ‘*space-time in the material world*’, and in *social relationships* (Kemmis, Wilkinson, et al. 2014, 4). Each of these spaces is shaped by particular kinds of *arrangements* which exist in each of these dimensions and which enable and constrain our thoughts/speech (*sayings*), our actions (*doings*), and our relationships with one another and with the material (non-human) world (*relatings*) (Kemmis and Grootenboer, 2008).

In relation to language, participants are enabled and constrained by the *cultural-discursive* arrangements of specific mentoring practices. For example, the language of a policy discourse about mentoring makes possible particular kinds of *sayings* and understandings about mentoring, be it as a response to teacher attrition (in the Australian case study), or alternatively, in the Finnish study, workplace wellbeing and professional development. In relation to space-time in the material world, participants are enabled and constrained by the *material-economic* arrangements that exist in the material world and which enable and constrain how we do things. For example, does mentoring take place in the formal location of a staffroom or classroom, or in the more informal space of someone’s home or a coffee shop and how do these physical

arrangements shape and make possible, or preclude particular kinds of conversations and practices?

Finally, in relation to *social relationships*, participants are enabled and constrained by the *social-political* arrangements that exist in social space, which enable and constrain how we relate with one another through, for example, the more collaborative social space prefigured by peer group mentoring, or the more traditionally hierarchical relationships connoted by dyadic mentor/mentee arrangements (Kemmis, Heikkinen, et al., 2014; Wang & Odell, 2007). Crucially, these three arrangements do not exist in isolation from one another but need to be understood as “hang[ing] together” (Schatzki, 2003) in sites, practices and participants. In sum, how we act and participate in the social world is shaped by these arrangements. The critical point, however, is that in order to realise and bring about transformations to mentoring practice, changes to the three (cultural-discursive, material-economic and social-political) arrangements, which shape mentoring practices, need to occur.

Keeping this theoretical outline and literature review in mind, in the remainder of this article we aim to answer the following research questions:

- (1) What are the perceptions and understandings of “good” mentoring in the Finnish and Australian sites under examination?
- (2) What are the practices architectures (that is, the cultural-discursive, material-economic and social-political arrangements) that enable and constrain different kinds of mentoring practices in these differing sites?

Research settings, material and methodology

In this section we outline the nature and sites of mentoring practices in Finland and NSW, Australia and highlight the parameters of the study. We have selected to devote

time to an articulation of our analytical processes given that there is a tendency in qualitative research for trustworthy analytical actions to be underwritten in favour of an explication of the findings. For this explicit process it is necessary to describe the sites of mentoring practices.

The sites of mentoring practices in Finland and NSW

Recently, in Finland, mentoring-support practices have been widely developed according to the Finnish model of Peer-Group Mentoring (PGM). This model is funded by the Ministry of Education and Culture and is currently working in over 120 municipalities. Peer-group mentoring is coordinated by the Finnish Network of Teacher Induction 'Osaava Verme,' which consists of all the teacher education institutions in Finland; that is to say eight teacher education departments in the universities and five teacher education units in the universities of applied sciences. The development of mentoring in Finland started as a one-on-one pilot in city of Kokkola. As the pilot progressed to encompass a greater number of municipalities, the model moved towards peer group mentoring (PGM). The PGM model is based on the ideas of socio-constructivism, dialogue and knowledge sharing (Heikkinen, Jokinen & Tynjälä 2012). Discussions in PGM occur in groups that consist of both new teachers and their more experienced counterparts. Teachers participate in the groups on a voluntary basis and the mentor of the group is paid for their work. The ideal size of the group varies between four to eight members. The group meets on a regular basis, usually once a month in the afternoon, and preferably in a location away from the teachers' own schools. The group is responsible for planning, organising and implementing its own program for professional development throughout an academic year (Heikkinen, Jokinen & Tynjälä, 2012).

In contrast to the practices of collegiality, dialogue and ‘bottom-up’ professional learning that underpin the Finnish PGM model; the New South Wales public education system in Australia has adopted a more traditional, transmissive model of one-to-one mentoring between an experienced teacher and a beginner. Formal mentoring in the NSW public education system has largely arisen in response to national and state-wide educational initiatives to improve teacher accountability through the establishment of standards for teachers and leaders (Kemmis, Heikkinen, et al 2014). New Scheme Teachers³ are provisionally or conditionally accredited in their initial employment with NSW. However, in order to gain ongoing employment, they must satisfy the standards at the level of Proficient Teacher. Hence, mentoring may be put in place to support novice teachers; particularly those who may be struggling to reach the Proficient Teacher level (New South Wales Government, 2014).

In Finland, the motivation for mentoring new teachers is derived from enhancing teacher professional development and professional competence. For the remainder of Europe however, there is a prevalent issue with the retention of early career teachers and this has been addressed widely in research so far (European Commission, 2007, 2010; Eurydice, 2013; OECD, 2000, 2005; Picard & Ria, 2011). As such, the EU policy forms one of the (cultural-discursive) practice arrangements shaping Finnish mentoring practices. In contrast to Finland, teacher attrition is a major issue in all states in Australia. For example, Ewing (2001) found that up to 40% of beginning teachers leave

³ New Scheme Teacher refers to a category of teachers in NSW who were employed after October 2004 or returned to duty after a long absence (five years or more) after this date. These teachers, under the guidelines of the Teacher Accreditation Act of 2004 and the Board of Studies, Teaching and Educational Standards Act, were expected to complete an accreditation process in the first five years after their appointment or return to duty. This is part of the NSW Department of Education and Communities requirements for employment and approval to teach in NSW.

https://www.det.nsw.edu.au/policies/employment/recruit/tchr_acred/PD20050165.shtml

the profession due to cited reasons of inability to manage and control classes. From this perspective, it is understandable that in Australia there are serious concerns about accountability and investment of public funds for teacher education (c.f., Long, 2009).

The data

The data has been selected from two larger case studies in Finland and Australia. In the case of Finland, the project generated two different sets of data. In the first instance the data drew on five semi-structured focus group interviews with mentors and their mentees (total of 16 participants). The issues explored in the focus groups included group composition, motives for participation, how the group was organised, and work methods. In the second instance, 14 mentors were asked to write two fictional stories (Mottart et al., 2009; Sikes & Piper 2011), which included elements of their 'real-life-experiences' in a peer-group mentoring meeting. They were instructed to write one story of a PGM-meeting, which they considered to be a total failure, and reflect on what went wrong, and for what reasons. The other story was to be written about a successful PGM-meeting, and address why it was a success. Thus, the instructions guided the mentors to write not only about the actual experience of mentoring, but also about the practice beyond the experience; the preconditions and arrangements which enabled or constrained that practice.

In the case of Australia, the mentoring data formed a part of a larger action research case study on practices of school transformation, leadership and capacity building in a rural secondary school (Bristol & Wilkinson, forthcoming). Two researchers spent one year interviewing staff members as individuals (N=10) and in focus groups (N=8); as well as observing staff meetings (N=1) and staff development days (N= 2). School visits were mostly made on Fridays as this was the day of shared

morning teas for the staff and provided us with a way of building a relationship of trust over time with the participants.

Practices of mentoring were evident across three sites of practice within the school: in cross-disciplinary faculty groups, among the staff who participated in a special educational program for 15-16 year old at risk boys in Years Nine and Ten, and in a school-based mentoring programme for New Scheme teachers which was supported by National Partnerships funding⁴. In conversations with the participants they were asked to reflect upon experiences of mentoring (being mentored and being a mentor), as well as the ways in which specific incidents of mentoring practices enabled or constrained school transformation, leadership and capacity building. The data that we drew upon for this paper came from the interviews and focus group discussions with the four teachers and one New Scheme teacher involved in this school based practice (N=6 transcripts in total). We selected to do so given its close comparison with the practices of mentoring designed for new teachers in the Finnish context.

Interviews and focus groups were audio recorded, while observations were documented using an audio recorder and field journals. All audio-recorded material was transcribed. The data that we focus on for analysis draw on interviews with mentors and mentees (the latter were teachers in the first five years of their teaching career).

Analysis

The analytical process used to mine, make sense of and re-interpret the data was done

⁴ The *Smarter Schools* National Partnerships Program funding was provided to schools by the Australian Government via state and territory governments. The funding was to be used to address disadvantage, support teachers and school leaders, and improve literacy and numeracy outcomes. <http://smarterschools.gov.au/>

across two stages. We will describe these stages as *first order analysis* and *second order analysis* as they illustrate the ways in which we collaboratively scaffolded the analytical development and positioned interpretation as a social process (Barrett, 2007).

In the first order analysis phase, the data for Finland and NSW were analysed separately by the researchers who collected the data in these contexts. As individuals, the researchers subjected the data to content analysis, and then categorised the content into themes. The researchers then met in pairs and collated the emerging themes as particular to Finland or NSW. In the second order of analysis, the thematic data from the two contexts were brought to three meetings between the four researchers and again categorised according to the research questions guiding the study. In these reflective research meetings the researchers paid attention to what was present or absent in the data across the contexts. At this point the data were examined for theoretical alignment with the theory of practice architectures.

This phase of the second order of analysis was significant given our practice of collaborative interpretation and analysis of the data in a concentrated block of three weeks in Australia where the four researchers came together to conduct analysis. During this period we were able to make explicit our ‘thoughts behind the research process’ (Sommer, 2009, 12); deliberately accepting responsibility for our practices of interpretation. We shared the stories of our research encounters in an attempt to make sense of the nature of the research context and the practices under examination and justify how we were coming to the conclusions that were being drawn. Our collaborative practice acknowledged researchers as ‘essentially the instruments of interpretation’ (Platt 2002, in Sommer 2009, 14). This collaborative practice also established a measure of trustworthiness and triangulation through our coding practices. In the later phase our analytical process moved beyond explicit understandings of the

practice of mentoring towards more implicit understandings of the practice embedded within the practice architectures which surrounded mentoring (cultural-discursive (*sayings*), material-economic (*doings*) and social-political (*relatings*) arrangements. At this point, through our discussion, we were able to: first, recognise ‘potentially... new forms of practice and new kinds of subjectivities’ (Martin & Kamberlis 2013, 677) and second, cultivate ‘the possibilities inherent in the participant’s own understanding’ (Watts 2014, 8) as shared in interviews.

We found resemblances to other methodologies for research on practices such as ‘*zooming in*’ and ‘*zooming out*’, (Nicolini 2012); for at times we had to pay attention to details (*zoom in*) and sometimes, in turn, to the big picture (*zoom out*). Another way to describe our analysis is to use the metaphor of ‘*bricolage*’ (Denzin & Lincoln, 2005; Lévi-Strauss, 1966) referring to a meaning-making process, which is more flexible, fluid, divergent and open-ended compared to traditional scientific knowledge-production activities. Meaning-making bricoleurs combine their imagination with empirical knowledge to meet the diversities and complexities of social practices (Rogers 2012, 2-3). In this study, our meaning-making bricolage included inductive reasoning, which was especially important in the first order analysis. It also included deductive reasoning as we applied the theory of practice architectures. Moreover, it also included abductive (or retroductive) elements while we asked *what still was missing* after concluding the first order analysis.

We have illustrated an analytical process that moved through two phases of data interrogation (figure 1). This process revealed that the (cultural-discursive, material-economic and social-political) arrangements emerged differently in the first and second order analyses. For instance, many of the material-economic arrangements were explicit after the first order analysis, but the second order analysis revealed the more implicit,

taken-for-granted, understated cultural-discursive and social-political arrangements, which held the practice of mentoring together across the two contexts. In the second order analysis, we asked what was in common or what was different in the two sets of categories, and asked why something was present and why something was missing. This was how we could bring forward something, which was tacit or implicit beyond the practices.

This process demonstrates the analytical promise of the theory of practice architectures. One of the main aims of that framework is to make the preconditions of practices more explicit. What is least explicit may sometimes be most influential. In this case, some of the more important cultural-discursive and social-political arrangements were more significant only after the second order analysis: the elements of power and solidarity, as well as some of the linguistic, cultural and semantic elements that prefigured the practices of mentoring. From this perspective, our findings (see the following section) are in line with some other studies, which have been conducted through the theoretical lens of practice architectures (c.f., Kemmis & Heikkinen 2012; Kemmis, Heikkinen et al., 2014; Wilkinson and Kemmis, forthcoming; Bristol, Brown & Esnard, 2014; Bristol, forthcoming).

Figure 1. Ontology of data analysis.

Results⁵

The results will be presented in three sections. First, there is a description of the

⁵ There are obvious differences in the ways in which the voice of participants in the Finnish and Australian data were presented. In the Finnish data no pseudonyms were used because these reflected a composite of participants' ideas captured through the fictional stories created by the participants. In the Australian data, pseudonyms were used as these reflected the participants' individual perspectives.

findings from the first order analysis; the results from each case are introduced as single sections. Second, there is an interrogation of the findings from the second order analysis. These have been influenced by the researchers' reflective discussion of the themes arising from the first order analysis.

First order analysis, Finnish data

Perceptions and understandings of good mentoring in Finland

In the Finnish data, seven categories emerged from the analysis: *time, physical settings, social atmosphere, interaction, unwinding, common agreements* and *composition of the peer group* (table 1), which were connected to the question of "what constitutes good mentoring?" These categories were expressed in both negative and positive utterances, which were more or less the opposite expressions of each other (for example, *cozy couch* versus *uncomfortable chair*).

Table 1. Seven categories from the Finnish data of what constitutes good mentoring.

Time had two dimensions in the data: time for the meetings and time in the meeting. When people were working in a group it was important that there was sufficient time for the meeting, the date was suitable for everyone and the meetings had some kind of continuity and stability (e.g., a certain day in a month). Also the time for planning and the use of time within the meeting emerged as a critical issue. For instance, time to talk had to be equally divided between the participants, participants appreciated that the reserved time was planned well and used in a beneficial way, and that participants followed the time plan that was agreed in the group. These practices demonstrated that teachers valued time as a critical resource and were not willing to waste it.

Another category was *physical settings*. For the participants the actual site involved many meaningful elements, which affected the outcome of the meeting. Adjectives were used to describe the physical settings including: uncomfortable chair, draughty windows, noisy music, beautiful and cozy place, warm room, tasty biscuits. In most situations the described place for the mentoring meeting was something other than teachers' own classroom. As one participant reflected, the 'best place to air your thoughts is far away from your own class.'

Time and physical settings were one part of the *common agreements* that the participants planned and agreed to in the group. These agreements were important to ensure that the group worked and functioned effectively, and that decision-making was democratic and involved every member of the group. First, the group decided together where they would meet, the dates and times for the meetings and the topics and themes they wanted to address. Secondly, to ensure commitment and confidentiality the group created rules, which influenced how the participants would work. This also involved agreements on how to talk about issues and about the group itself to persons who were not members of the group. Although the group formed these rules, it did not prevent spontaneity during the meetings and plans were modified during meetings if there seemed to be urgent, relevant issues to talk about. Some statements also referred to other 'unwritten rules', such as implicit social norms and the ways participants were expected to behave in the group.

The expressions for the category of *interaction* mirrored a reciprocal and constructive action in a participative group. Participants could be themselves and the group took care to ensure that all individuals had the opportunity to contribute to the discussion. Participants indicated that they preferred a discussion, which was constructive and eventually led to problem solving or a solution, so that participation

was meaningful for the group members. The requirement of 'attending' or 'being present' for the participants was expressed in the data and this was connected to the need for different types of stimulation besides the discussion. For instance, picture cards were used to help to express emotion or a form of drama was employed for those who preferred to express feelings kinesthetically. These were named as functional methods in the categorizing.

The category of *unwinding* is related to interaction, but was regarded as a separate category because of the specific role that it played in the interaction. It created opportunities for 'catching up while having coffee and at the same time we talked about the day's events so far and unloaded our feelings.' *Unwinding* was something that the participants did when they arrived. Teachers started to catch up on news and depending on the previous events of the day, they unloaded emotional stress, shared good feelings or just had coffee or tea and relax. For the participants, this seemed to be important because they had the opportunity to share the things that were puzzling them and/or orientate themselves to upcoming discussion. This was also one of the situations when teachers said that they received emotional support.

The category of *social atmosphere* combined the expressions that described the participants' experiences of social relations and social interaction in the group. The mentoring practice is specifically named as *peer-group* mentoring and this element of peerness or equity was related to expressions that reflected more collegial power relations. The individuals of the group were viewed as important by other members of the group, with clear protocols that no one person should dominate, or be dismissive of other's points of view. To support equity in the group the individuals needed to experience trust, respect and openness. Togetherness or the cohesion of the group was mentioned as it was one of the aims or objectives for the group. Well-being was

expressed as a benefit or outcome in the utterances: teachers felt satisfied or relieved after the meeting.

The final category was the *composition of the group* and usually the expressions indicated how many persons were involved in the group and their gender. The ideal size of the group was noted as ranging from five to eight persons and because of the general division of female and male teacher in Finland, participants observed they would have liked to have had more male teachers in the groups. Groups were formed in different ways, for instance, participants having similar roles such as subject teachers. Alternatively, they may have been teachers from different grade levels, as long as they were interested in some of the same themes.

First order Analysis, NSW (Australia)

Perceptions and understandings of good mentoring in NSW, Australia

In the context of NSW, mentoring often occurs in one-to-one, hierarchical arrangements between a senior teacher and a New Scheme Teacher. This positional set up facilitates an understanding of mentoring that may be more in line with a transmissive model. The NSW data illustrates some of the prefiguring features (table 2) associated with a transmissive model of mentoring through directed activities intended to ensure accreditation and facilitate teacher quality and competency. These undertakings were shaped by a tacit understanding expressed by one mentor in relation to New Scheme Teachers (NST) as ‘enthusiastic but with still a lot to learn’.

Table 2. Five categories from the Australian data of what constitutes good mentoring.

At Hilltop High School – a small rural secondary school serving a low socio-economic student population – formulating a *shared purpose* for mentoring included

initial conversations between mentors and mentees. These conversations established a set of personal performance indicators that the mentee would “want to work on”. In this conversation the mentee, with the help of the mentor, set goals that were met during the period of time allocated for the mentoring relationship. These goals and indicators were significant as they framed a conversation in relation to expectations of and for mentoring and being mentored.

Mentors were expected to design and articulate the range of *explicit organising structures*, which govern teaching and more particularly the accreditation process for New Scheme Teachers (NST). Mentoring, in this case, served to help NST navigate the technologies associated with being a teacher in NSW. Parallel to the existing standards for teacher quality, were implicit expressions of mistrust over the quality of university graduates entering into teaching. As one mentor, ‘Celeste’ suggested in regard to teacher training, ‘the Dip.Ed. Course needs to change’, for Head Teachers at the school identified newly graduated NSTs needing ‘extra assistance in a lot of areas’. Mentoring, teachers contended, was to ensure that the ‘quality of the teaching continues or is upheld’ (Celeste), and that accreditation was possible and successful.

In these circumstances, the mentor’s role was conceived in highly gendered terms as being like a ‘mother hen’, admonishing and advising the mentee about the prerequisites for teaching and staffing responsibilities. Celeste, in constructing a fellow mentor, Sally, as a ‘mother hen’, outlined this understanding of the mentor:

Being the more senior, she was very much about reinforcing school policies, codes of conduct, I like to say the political side... making sure that..., their content of the

lessons was substantial enough to go through from pre-requisite to HSC⁶...we call her the mother hen... she looked at the psychological well-being (Celeste).

In response, Sally accepted this mother-hen construction of her mentoring work given that she characterised the mentees as ‘the little chickens under our wing’ who needed to be looked after.

The organising structures for good mentoring in this more transmissive model were also supported by *designed activities*, which served to reinforce and build upon the pedagogical elements of teaching learnt while in pre-service teacher training. Mentoring relationships were navigated through activities such as lesson observations, unit planning, creating resources for lessons and sharing afternoon tea as a way of monitoring development in a less formal manner. Through these activities, Celeste constructed the mentor’s role as akin to a swim coach and life guard, protecting against the eventuality that a new teacher be thrown ‘in the deep end of the pool and them not be... able to swim’. This protective notion (psychological care) needs to be understood against a background of national concerns for high teacher attrition rates. It was summed up in Celeste’s argument that ‘our new scheme teachers who are young need lots of recognition’ and support to ‘keep them in teaching’, as they learn to play the game of teaching. As such, good mentoring as a notion of excellence in professional performances was closely linked in this instance to a form of clinical professional development for the mentee.

Significantly, ‘psychological care’ can also be understood as the *provision of support*. This sense of good mentoring is more in line with collaborative and community models of mentoring (Tynjälä & Gijbels 2012). That is, it can be understood

⁶ Higher School Certificate (HSC) is a an end of secondary school qualification awarded to students in Years 11 and 12 in New South Wales.

as a negotiated and reciprocal practice between mentor and mentee in which the pair navigates system demands for quality indicators and accreditation. At Hilltop High School, this involved mentors and mentees swapping roles and providing critical and evaluative feedback on each other's observation lessons. Both mentors and mentees learned by "watching someone else teach". This was where mentors such as Celeste – in a more dialogical relationship with the mentee – were able to reflect on her weaknesses. Unsurprisingly, however, collaborative models of mentoring appeared to be more evident where there were more symmetrical power relations, i.e., between the NST mentors, Celeste, Freida and Sally, rather than mentors and mentees. In reflecting on their team relationship, Freida, Celeste and Sally recognized that they 'needed to be very supportive of one another ... right from the outset... to be a strong team together' (Freida); 'celebrating little victories' (Sally); in their work as mentors and in their relationships with each other and the mentees.

These forms of support ensured a measure of *control over professional development* for the mentee and the mentor. Reflection and self-evaluation fed autonomous and professional action, facilitated problem solving, encouraged openness and the ability to share practices with others and created connectivity between peers, internal and external to the school and between mentees and mentors. The latter was critical for the NST as it built a sense of belonging to a professional community and thus relieved one of the challenges of being a beginning teacher in a challenging, high poverty, rural educational setting⁷.

⁷ The middle ground positioning (that is, somewhere in the continuum between transmissive and more collaborative models) of 'good mentoring' at Hilltop High reflected a growing orientation in New South Wales public schools towards more site-based practices for professional development and capacity building. These gestures towards more collaborative mentoring were mirrored in controversial state-wide policies such as *Local Schools: Local Decisions* where principals recently have been given the authority (and by

Second order analysis: ‘What is good mentoring?’

After having inductively categorized the elements of ‘good mentoring’ in the Finnish and in the NSW data, the second phase of analysis involved a collaborative comparison of the first order analysis of both studies. In this analysis phase, we compared the first order analysis through the lens of our second research question, namely, what are the practice architectures that enable and constrain different kinds of mentoring practices in the two different sites of Finland and NSW, Australia? What became clear in this process is that very different kinds of mentoring practices had developed in both sites due to the differing kinds of projects or underlying purposes which held these practices in place. A project is the end result or purpose of a practice and provides an answer to the question, what is the purpose of this practice? (Kemmis et al., 2009). The key differences of these two sites have been summarized in the table 3.

Table 3. Key differences between Finland and NSW from second order analysis.

The project of a practice creates the enabling and constraining preconditions (cultural-discursive, material-economic and social-political arrangements) that make particular kinds of practices of mentoring (and not others) possible. For instance, in NSW, new teachers must achieve accreditation at the end of the first three years of their teaching career. Failure to do so will lead to exiting from the teaching profession – a low trust environment. In Finland, there is no accreditation process as new teachers are assumed to already have the necessary professional skills and competencies after graduation required for successful teaching practice – a high trust environment. It is

implication autonomy) and funding to determine the forms of professional learning and support relevant to them and their school context.

these contrasting sets of practice architectures which form the enabling and constraining preconditions holding together the differing practices of mentoring in both national contexts. Specifically, in terms of the *cultural-discursive arrangements* of mentoring in the Finnish case – the purpose of the national *project* of peer group mentoring has been to create well-being at work for new teachers through the professional development afforded by peer group mentoring. A secondary purpose is to provide commencing teachers with emotional support in their first years of teaching. Hence, the *language* of mentoring in the Finnish case draws from national policy which emphasizes *workplace wellbeing* and *emotional support*. From this project flows a different set of mentoring arrangements and subsequent practices, captured in the category of ‘unwinding’ in the first order categorization of the Finnish data. Participants’ differing sayings (‘coffee’, ‘cozy atmosphere’), doings (an emphasis on providing good coffee and delicious food), and more collegial relatings (‘catching up ... unloaded our feelings’) capture these dominant policy discourses.

In terms of the *cultural-discursive arrangements* of mentoring in the Australian case, the purpose of the New South Wales project has resulted from a system-identified need to stem the high numbers of new teachers leaving the profession in the first five years. A secondary project is a long-term neoliberal education agenda which emphasizes teacher quality, accountability and efficiency. Hence, the predominant *sayings* of the NSW teacher mentors in our first order analysis reflected these dual projects, with their discussion of one of the purposes of mentoring as being about ‘*reinforcing school policies, codes of conduct ... the political side*’ (our italics). The various projects of mentoring in the NSW case also reflected a different aspect of mentoring’s etymological origins, that is, ‘one who admonishes’. It was the more instrumentalist project underlying mentoring policies in NSW, linked to an explicit

‘admonitory’ set of relatings, emphasising power over the mentee, (‘codes of conduct’), that fostered a more technicist and rationalist approach to mentoring practices. In contrast to the Finnish case, sayings which emphasized more humanistic or collegial sets of *relatings* were marginalised. However, they were not utterly unsayable. At one point, Sally noted that in order to foster a greater sense of trust between the new scheme teachers and mentors, the mentors had instigated a more informal afternoon tea, where new teachers could talk about how things were going in a more relaxed atmosphere.

In terms of the *material-economic arrangements* that ‘exist in the dimension of physical space-time’ (Kemmis et al., 2014, 4), in the Finnish case, time was a constant theme in participants’ sayings about mentoring. It enabled and constrained mentoring practices in relation to two factors – the lack of time for teachers to do their work, and the constant juggle to negotiate the professional demands associated with peer group mentoring, alongside one’s personal demands (e.g., finding time to meet outside school hours). In the NSW case, time did not emerge as a crucial element in participants’ sayings. One of the reasons may be the different kinds of funding that support mentoring in the two case studies. In Finland funding was provided for teachers to train as mentors. However, it was not provided for teacher release in order for teachers to take part in peer group meetings in school time. Hence, a different set of doings flowed from these arrangements in terms of meetings taking place outside school hours. Attendance was voluntary and the group structure of the mentoring necessitated more negotiations to accommodate professional and personal demands.

In contrast, Hilltop High School had gained National Partnerships funding and the principal had elected to use some of these funds to support the release of both new and more experienced teachers (mentees and mentors) in school time. The emphasis was upon the development of *mentee practice*, with an implicit assumption that mentors

did not need or require training (this assumption was challenged by mentors in their interviews). Clearly related to the accreditation and accountability project of this mentoring practice, this material-economic arrangement facilitated mentors' doings. Examples of these doings included: observations of mentees' classes; demonstrations of 'good' pedagogical practice through mentees' observing mentors' (and other experienced teachers') classes; mentors working with mentees to develop their teaching programs; and mentors providing a range of supports towards building mentees' accreditation portfolio. These doings of mentorship practice bundled together with specific sayings of mentorship. For instance, mentors in the NSW case study identified that using explicit language in order to translate the language of accreditation into understandable chunks was part of the 'good' mentoring practice. These sayings and doings of mentoring practice were bundled together with specific kinds of relatings. For example, mentoring practices such as observations of mentees' teaching and facilitation of accreditation reflected a more 'top-down' approach to mentoring.

Another aspect of the material-economic arrangements was the *physical setting* in which mentoring took place. This was a focus of many sayings in the Finnish case study. Given the emphasis of peer group mentoring was on supporting new teachers' workplace well-being, it was critical that a space be found for groups that was not in the workplace, had pleasant and congenial surroundings to induce a spirit of relaxation, and was quiet and private enough to allow for the exchange of confidential aspects of work. The physical setting arose as a predominant understanding of what participants understood constituted 'good' mentoring practice. In contrast, physical setting, for the reasons outlined above, did not emerge as a critical issue in the NSW case. Mentoring took place in the workplace and was regularly scheduled in the school's meeting rooms where the formality of the practice and its association with improvement of workplace

performance was clearly connoted to mentor and mentees alike – a constant reminder of the accountability agenda that underpinned this mentoring project.

Both the composition of the Finnish peer groups such as their size (between five and eight was considered an ideal number) – and the fact that mentoring took place in a group setting – were critical aspects of the material-economic arrangements of mentoring practice that shaped the relatings of mentorship practice. For instance, the intersubjective space constructed within these groups was underpinned by Finnish values of social democracy, connoted in the appellation, *peer* group mentoring (our italics). Noteworthy was the fact that although the groups were ‘led’ by a mentor, the groups combined a clear mix of experienced and less experienced teachers who were seeking on a voluntary basis, greater enhancement of their workplace well-being and professional development. Hence, in relation to the *social-political arrangements* or preconditions which fostered particular kinds of relatings between mentors and mentees, the notion of equity amongst peers, including that between mentors and mentees, shaped the intersubjective space in which participants encountered one another within peer groups. This is not to idealise or gloss over asymmetrical power relations between participants in the groups, but to foreshadow the types of social-political arrangements, which enabled the fostering of more equitable practices of mentoring. Hence, in the groups, good mentoring practice was characterised as forming collaborative relationships. Mentors played a less obtrusive role in the Finnish context, with an emphasis upon new teachers and mentors as co-constructors of knowledge. Hence, the formalized role of the mentor switched in the group between advising, giving constructive feedback, being silent and learning. Good mentoring practice was constructed as a reciprocal set of relatings focused on shared meaning-making, characterised through a range of sayings that emphasised attentiveness, reciprocity,

participatory, authenticity and meaningfulness. In this set of arrangements, there was a presumption of agency, ownership and power to build professional identity and a pedagogical disposition. Mentees' subject location was signified as one of trust, respect, autonomy – a valued teaching professional who brought knowledge and competence to the group.

At Hilltop High School, a more transmission-based set of mentoring practices for new scheme teachers was enabled through the arrangements of mentoring pairs – a traditional, dyadic, unidirectional set of relations, which shaped mentoring as an intersubjective space. There were clear tensions between the accountability and standards approach to mentoring which emanated from government policy and funding models and the more invisible, but equally important, emotional labour of supporting new scheme teachers. This labour was captured in highly gendered terms when one mentor was described as the 'mother hen' and she, in turn, described new scheme teachers as her 'little chicks'. They connoted a very different set of subject locations for mentors and mentees from the relations captured in the Finnish sayings of 'peers' and 'peer group'.

Discussion and conclusion

As stated in the introduction, our study had two aims. In the first instance we conceptualised mentoring ontologically as a *social practice*. This offered a new perspective to the research literature on mentoring and the manifestations of what ontologically can be thought to be good mentoring. In the discussion that follows we will highlight the implications of employing a practice ontological perspective to understand and to inquire into *what is good mentoring*, as well as make recommendations for policies and practices at the system level.

We have focused on understanding the underlying practice conditions, which prefigure different mentoring practices in different social sites. The theory of practice architectures provided an appropriate lens through which mentoring arrangements were identified: the *practice architectures* of mentoring. Comparisons between the two sites were illuminating as they helped to explicate how these practice architectures constructed different kinds of *understandings* or ‘*sayings*’, *activities* or ‘*doings*’ and *relationships* or ‘*relatings*’ (Kemmis and Grootenboer, 2008) of mentoring, enabled and/or constrained by the cultural-discursive, material-economic and social-political arrangements in the two different sites. The different practice traditions, and their associated arrangements, influenced what came to be the ontological givens or manifestations of mentoring in Finland and in NSW, Australia. The findings in this paper then, have implications for the ontological specificity of mentoring as an imagined practice (mentoring as a concept) and as a lived practice (enacted in social arenas in temporal spaces). More so, our findings point to the problematic nature of adopting international positions on mentoring; as a homogenising practice understood, lived and engaged equally across a range of dissimilar of sites locally, regionally and internationally.

At a more universal scale, we must be aware of power and language beyond the actual actions, which are interconnected or ‘bundled together’ in many ways with the actual activities and actions of mentoring in the material-economic world (Schatzki, 2002). For example, concepts such as ‘*novice*’ or ‘*novice teacher*’ which are often used in the context of mentoring connote historical practices, such as preparing members of religious orders in the Catholic Church, and apprenticeship practices in the guilds of the Middle Ages, where less experienced young people were guided by more experienced and older role models (Kemmis & Heikkinen 2012). If we use these kinds of

expressions, the social relations between the persons involved in the mentoring process are prefigured accordingly.

Of significance as well is; (1) the interrelationship between emerging or pre-existing practice arrangements, and the particular practice traditions (the historical traces which inform particular site's practices) of the site, and (2) the impact of this relationship on a mentoring practice. This is evident in the ways in which local circumstances and national politics affect the practices of mentoring. The significant differences in traditions configure mentoring in very distinctive ways. In NSW, Australia, a highly centralised and hierarchical public education system prefigured the emergence of more transmissive models of NST mentoring, whereas in Finland, a political tradition of social democracy underpinned more collegial mentoring practices focused on promoting professional development and well-being.

An ontological designation of good mentoring also has implications for the ontological nature of the inquiry that goes into an investigation intended to *apprehend or stabilize a definition of good mentoring*. This requires a research practice of a different social form amongst researchers, i.e., one which is enabled and sustained through orders and arrangements that promote and prefigure shared interrogations of: (1) researcher conceptual and language understandings, (2) research sites, (3) research practices, (4) interpretations of data, and (5) emerging understandings of the complexity of practices across sites. Thus, a site ontological perspective of good mentoring can be best accessed through an inquiry that is both philosophically and socially located in the practice traditions of the practice being problematised.

Additionally there are system implications for the practice and consideration of good mentoring as ontologically located. In the light of the global education reform movement (GERM; Sahlberg, 2011), the notion of mentoring as an ontological practice

has implications for policy makers and the ways in which policies are evaluated and implemented. Given the social and ontological nature of mentoring as a practice, mentoring must be recognised as a localised response to teacher professional development, rather than – as in European Union – a unified model to be homogenously applied. What this suggests is that systems of mentoring and its associated practices cannot be imported or exported and transplanted in new sites without a concurrent impact upon the authenticity and cohesion of the practice (as in the NSW case where mentoring is functioning as a practice in transition; i.e., between transmissive and more collaborative practices).

For practitioners and schools, these findings have implications for the ways in which they understand the unfolding of a social practice in educational projects such as those geared towards teacher development. There needs to be an awareness of the ways in which particular sayings, doings and relatings and their attending arrangements can be employed to transform and substantiate good mentoring as a practice; one that is relevant to the needs and learning of mentee, the mentor and the wider professional community.

Reference

- American Psychological Association. 2014. Introduction to Mentoring: A Guide for Mentors and Mentees. Downloaded 11.2.2014 in URL address <http://www.apa.org/education/grad/mentoring.aspx>
- Angelique, H., Kyle, K. & Taylor, E. 2002. Mentors and Muses: New Strategies for Academic Success. *Innovative Higher Education* 26 (3): 195–209.
- Aspfors, J. 2012. Induction Practices: Experiences of Newly Qualified Teachers. PhD diss., Åbo Akademi University.
- Barrett, J.R. 2007. The Researcher as Instrument: Learning to Conduct Qualitative Research through Analysing and Interpreting a Choral Rehearsal. *Music Education Research* 9 (3): 417–433.

- Bozeman, B. & Feeney, M. K. 2007. Towards a Useful Theory of Mentoring. *Administration & Society* 39 (6): 719–739.
- Bristol, L. Forthcoming. Leading-for-Inclusion: transforming action through talk. *International Journal of Inclusive Education*.
- Bristol, L., Brown, L. & Esnard, T. 2014. Socialising Principals: early career primary school principals in Trinidad and Tobago. *Journal of Educational Administration and History*, 46 (1): 17–37.
- Colley, H. 2003. Engagement Mentoring for 'Disaffected' Youth: A new model of mentoring for social inclusion. *British Educational Research Journal*, 29 (4): 521–542.
- D'Abate, C., Eddy, E. & Tannenbaum, S. 2003. Literature-based approach to understanding mentoring, coaching, and other constructs that describe developmental interactions. *Human Resource Development Review* 2 (4): 360–384.
- Darwin, A. & Palmer, E. 2009. Mentoring Circles in Higher Education. *Higher Education Research & Development* 28 (2): 125–136.
- Denzin, N. K. & Lincoln, Y. S. eds. 2005. *The SAGE handbook of qualitative research* (4th ed.). Thousand Oaks, CA: Sage Publications.
- European Commission 2007. Improving the Quality of Teacher Education. Communication from the Commission to the Council and the European Parliament. Brussels: European Commission. Cited 27.3.2014 http://www.see-educoop.net/education_in/pdf/com392_en.pdf
- 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.
- Eurydice 2013. Key Data on Teachers and School Leaders in Europe. Eurydice Report 2013 Edition. Brussels: Education, Audiovisual and Culture Executive Agency Eurydice and Policy Support.
- Fyn, A. F. 2013. Peer Group Mentoring Relationships and the Role of Narrative. *The Journal of Academic Librarianship* 39 (4), 330–334.
- Glazer, E., M. & Hannafin, M., J. 2006. The collaborative apprenticeship model: Situated professional development within school settings. *Teaching and Teacher education* 22 (2): 179–193.

- Harper, D. Online etymology dictionary. <http://www.etymonline.com/>. Cited 11.2.2014
- Heikkinen, H., Jokinen, H. & Tynjälä, P. eds. 2012. Peer-Group Mentoring for Teacher Development. Milton Park: Routledge.
- Higgins, M. C., & Kram, K. E. 2001. Reconceptualizing mentoring at work: A developmental network perspective. *Academy of Management Review*, 26(2): 264–288.
- Hu, C., Thomas, K. M. & Lance, C. E. 2008. Intentions to initiate mentoring relationships: understanding the impact of race, proactivity, feelings of deprivation, and relationship roles. *The Journal of Social Psychology* 148 (6): 727–744.
- Huizing, R. 2012. Mentoring Together: A literature Review of Group Mentoring. *Mentoring and Tutoring: Partnership in Learning*, 20 (1): 27–55.
- Ingersoll, R., M & Smith, T., M. 2004. Do Teacher Induction and Mentoring Matter? *NASSP Bulletin*, 88: 28-40.
- Kane, R. G., & Francis, A. 2013. Preparing teachers for professional learning: is there a future for teacher education in new teacher induction? *Teacher Development*, 17 (3): 362–379.
- Kemmis, S., Edwards-Groves, C., Wilkinson, J. & Hardy, I. 2012. Ecologies of practices. In *Practice, Learning and Change: Practice theory perspectives on Professional Learning*, vol. 8 of *Professional and Practice-based learning*, edited by P. Hager, A., Lee & A. Reich, 33–49. Dordrecht: Springer.
- Kemmis, S. & Grootenboer, P. 2008. Situating praxis in practice: Practice architectures and the cultural, social and material conditions for practice. In *Enabling Praxis: Challenges for Education*, edited by S. Kemmis & T. J. Smith, 37–64. Rotterdam: Sense Publisher.
- Kemmis, S. & Heikkinen, H. 2012. Future perspectives: Peer-Group Mentoring and international practices for teacher development. In *Peer-Group Mentoring for Teacher Development*, edited by H. Heikkinen, H. Jokinen & P. Tynjälä 144–170. Milton Park: Routledge.
- Kemmis, S., Heikkinen, H., Aspfors, J., Fransson, G. & Edwards-Groves, C. 2014. Mentoring as Contested Practice: Support, Supervision and Collaborative Self-development. *Teacher and teacher education*, 43, 154–164.

- Kemmis, S., Wilkinson, J., Edwards-Groves, C., Hardy, I., Grootenboer, P. & Bristol, L. eds. 2014. *Changing Practices, Changing Education*. Singapore: Springer.
- Kemmis, S., Wilkinson, J., Hardy, I. & Edwards-Groves, C. 2009. Leading and learning: Developing ecologies of educational conference. Paper presented at the Australian Association of Research in Education conference. Canberra, ACT, 29 November-3 December.
- Lévi-Strauss, C. 1966. *The savage mind*. Chicago, IL: University of Chicago Press.
- Long, J. 2009. Assisting beginning teachers and school communities to grow through extended and collaborative mentoring experiences. *Mentoring and Tutoring: Partnership in Learning*, 17 (4): 317–327.
- MacIntyre, A. 2007. *After virtue. A study of moral theory*. 3rd ed. Notre Dame (U.S.) University of Notre Dame Press.
- Martin, A.D. & Kamberelis, G. 2013. Mapping not Tracing: Qualitative Educational Research with Political Teeth. *International Journal of Qualitative Studies in Education*, 22 (6): 668–679.
- Mottart, A., Vanhooren, S., Rutten, K. & Soetaert, R. 2009. Fictional narratives as didactical tools: using Frank McCourt's Teacher Man in pre-service teacher education. *Educational Studies*, 35 (5): 493–502. DOI: 10.1080/03055690902879143
- Murphy, K., L., Mahoney, S., E., Chen, C-Y., Mendoza-Diaz, N., V. & Yang, X. 2005. A Constructivist Model of Mentoring, Coaching and Facilitating Online Discussions. *Distance education*, 26 (3), 341–366.
- New South Wales Government: Department of Education and Communities, 'Accreditation of Teachers in New South Wales Government Schools Policy'. https://www.det.nsw.edu.au/policies/employment/recruit/tchr_acred/PD20050165.shtml. Cited 29 May, 2014
- Nicolini, D. 2012. *Practice theory, work and organization*. Oxford: Oxford University Press.
- OECD 2000. *From initial education to working life*. Paris: OECD.
- OECD 2005. *Teachers matter: Attracting, developing and retaining effective teachers*. Paris: OECD.
- Oxford University Press. *Oxford English Dictionary*. <http://www.oed.com>. Cited 11.2.2014

- Picard, P. & Ria, L. 2011. *Beginning teachers: a challenge for educational systems – CIDREE Yearbook 2011*. Lyon, France: ENS de Lyon, Institut français de l'Éducation.
- Platt, J. 2002. The history of the interview. In *Handbook of interview research: Context and method*, edited by J. Gubrium, & J. Holstein, 33–54. Thousand Oaks, CA: Sage.
- Richter, D., Kunter, M., Lüdtke, O., Klunsmann, U., Anders, Y. & Baumert, J. 2013. How different mentoring approaches affect beginning teachers' development in the first years of practice. *Teacher and Teacher Education* 36, 166–177.
- Roberts, A. 2000. Mentoring revisited: A phenomenological reading of the literature. *Mentoring and tutoring*, 8 (2), 145–170.
- Rogers, M. 2012. Contextualizing Theories and Practices of Bricolage Research. *The Qualitative Report* Volume 17, 7, 1–17.
- Sahlberg, P. 2011. *Finnish Lessons: What can the world learn from educational change in Finland*. New York: Teachers College Press.
- Schatzki, T. 2003. A new societist social ontology. *Philosophy of the Social Sciences* 33, 174–201. DOI: 10.1177/0048393103032002002.
- Sikes, P. & Piper, H. 2011. Researching Allegations of Sexual Misconduct in Schools: The Need for a Narrative Approach. *Sexuality Research and Social Policy*, 7 (1), 294–303.
- Sommer, C.A. 2009. Gathering Wools: Reflections on Conducting Qualitative Research. *Journal of Poetry Therapy: The Interdisciplinary Journal of Practice, Theory, Research and Education*, 22 (1), 11–20.
- Topping, K., J. 2005. Trends in Peer Learning. *Educational Psychology* 25 (6): 631–645.
- Tynjälä, P. & Gijbels, D. 2012. Changing World: Changing Pedagogy. In *Transitions and Transformations in Learning and Education*, edited by P. Tynjälä, M-L Stenström & M. Saarnivaara, 205–222. Dordrecht: Springer Netherlands.
- Tynjälä, P. & Heikkinen, H., L., T. 2012. Beginning teachers' transition from pre-service education to working life: Theoretical perspectives and best practices. *Zeitschrift für Erziehungswissenschaft* 14 (1): 11–34.
- 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 (3): 473–489.

- Watts, S. 2014. User Skills for Qualitative Analysis: Perspective, Interpretation and the Delivery of Impact. *Qualitative Research in Psychology*, 11 (1): 1–14.
- Wenger, E. 1998. *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press.
- Wilkinson, J. & Kemmis, S. forthcoming. Practice theory: Viewing leadership as leading. *Educational Philosophy and Theory*.
- Yang, C., Hu, C., Baranik, L. & Lin, C.-Y. (2013). Can protégés be successfully socialized without socialized mentors? A close look at Mentorship formality. *Journal of Career Development*, 40(5): 408–423.

Table 1. Seven categories from the Finnish data of what constitutes good mentoring.

<i>Categories</i>	Time	Physical settings	Common agreements	Interaction	Unwinding	Social atmosphere	Composition of the peer group
<i>Elements</i>	For the meetings	-Room	-Written rules	-Attentiveness	-Sharing	-Power	-Number of
	-Sufficient	-Temperature	-Confidentiality	-Reciprocity	feelings	relations	participants
	-Suitable for everyone	-Light	-Commitment on the rules	-Participativeness	-Catching up the news	-Trust	-Gender
	-A constant date	-Sound	-Topics and themes	-Authenticity	-Unloading stress	-Respect	-Profession
	In the meetings	-Ventilation	-Common/joint decision making	-Meaningfulness	-Relaxation	-Openness	
	-Equally divided	-Location	-Spontaneity	-Constructiveness		-Togetherness	
	-Reserved time is well planned	-Furnishing	-Unwritten rules	-Functional methods		- Well-being	
	-Refreshments						
	-Precise times to start and to end						
	-Participants follows the time plan						

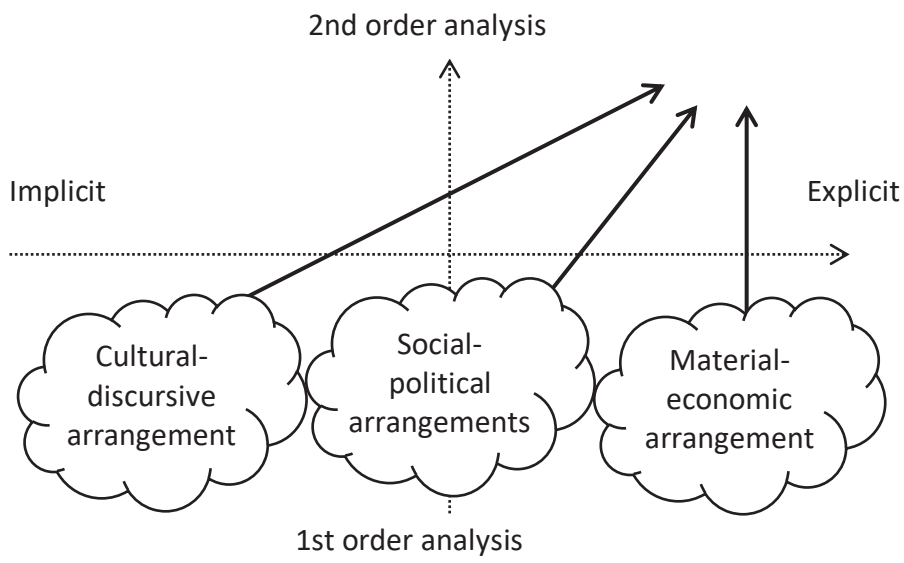
Table 2. Five categories from the Australian data of what constitutes good mentoring.

<i>Categories</i>	Shared Purpose	Explicit organising structures	Designed activities	Provision of support	Control over professional development
<i>Elements</i>	-Goal setting -Performance indicators	-Accreditation processes -Accountability -Navigating political/system structures	-Observing lessons -Unit planning -Creating resources -Afternoon tea	-Reliability -Confidentiality -Shared teaching -Role swapping	- Problem solving -Openness -Shared practices -Creating connectivity -Ownership -Reflection -Self evaluation

Table 3. Key differences between Finland and NSW from second order analysis.

<i>Difference</i>	Sites of the mentoring practice	
	<i>Finland</i>	<i>NSW, Australia</i>
Requirements for full teacher qualification	5 years pre-service teacher education	4 years pre-service teacher education + 1-3 years of accreditation process
Mentoring practice	Peer-group mentoring	One-to-one mentoring
Primary <i>project</i>	Support teachers' professional development and work well-being	Solve the problem of teacher attrition
Secondary <i>project</i>	Emotional support	Teacher quality, accountability, efficiency

Figure 1. Ontology of data analysis.





II

VIRTUES OF MENTORS AND MENTEES IN THE FINNISH MODEL OF TEACHERS' PEER-GROUP MENTORING

by

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Virtues of Mentors and Mentees in the Finnish Model of Teachers' Peer-group Mentoring

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ABSTRACT

This study investigated participants' conceptions of the ideal mentor and mentee in the Finnish model of peer-group mentoring (PGM). Existing mentoring research emphasises dyadic practices, yet there is a lack of investigation of participants' roles in group mentoring. The main concepts of this inquiry were *dispositions (habitus)* and virtues drawing on the theory of practice architectures and Aristotelian virtue philosophy. Methodologically, the study can be identified as philosophical-empirical inquiry that utilises a narrative and hermeneutical approach to analyse qualitative data from 30 respondents. As its central finding, the study identified a set of core characteristics that describe the virtues and vices of a mentor and mentee based on the participants' views. Overall, these characteristics reflected ideas of relatings (peerness, equality), proactive and reactive participation, and presence in the group. Characteristics focused on the social aspect of dispositions in peer-group mentoring.

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virtue philosophy; theory of
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1. Introduction

Mentoring is a globally and widely used method of professional development. In its traditional form, mentoring is understood as a scenario in which an experienced professional (mentor) transmits knowledge to a colleague who is in the beginning phase of his or her career (mentee) (Roberts, 2000). Recently, this conventional one-to-one mentoring approach has been increasingly replaced or accompanied with new approaches based on group formations such as group mentoring, peer mentoring, mentoring circles, and peer-group mentoring (Bozeman & Feeney, 2007; Darwin & Palmer, 2009; Fyn, 2013; Heikkinen, Jokinen, & Tynjälä, 2012; Huizing, 2012; Roberts, 2000). In our view, a paradigm shift has taken place from the metaphor of knowledge transmission to knowledge construction, collaborative meaning making and common creation of professional knowledge. In Finland, this paradigm shift has been manifested in the form of the peer-group mentoring (PGM), which involves teachers sharing and reflecting on their experiences, discussing problems and challenges that they meet in their work, listening, encouraging one another, and, above all, learning together and from each other (Heikkinen et al., 2012). However, this fundamental turn of the concept of mentoring into more collaborative and constructive forms changes the roles of mentors and mentees. Thus, the present study examines the characteristics of an ideal mentor and mentee in the context of peer group mentoring.

The transformation of participants' roles has recently been a focal area of research on mentoring (e.g., Ambrosetti & Dekkers, 2010; Butler & Cuenca, 2012; Colvin & Ashman, 2010; Crasborn,

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Hennissen, Brouwer, Korthagen, & Bergen, 2011; Dominguez & Hager, 2013; Gut, Beam, Henning, Cochran, & Knight, 2014; Hudson, 2013; Izadinia, 2015; Leshem, 2014; Orland-Barak, 2014; Orland-Barak & Hasin, 2010). Although the inquiry into participants' roles has been extensive, there are still gaps in our knowledge that need further attention. Previous studies (e.g., Ambrosetti & Dekkers, 2010) have focused on the practices of traditional dyadic (one-to-one) mentoring, whereas only a limited number of studies have examined roles in group mentoring contexts (Hobson, Ashby, Malderez, & Tomlinson, 2009). Orland-Barak's (2014) recent literature review also shows that the current research emphasises the role of mentor and that investigation of mentees' role in mentoring practices has been overshadowed (Hudson, 2013). The present study addresses the research gaps in the mentoring literature by investigating group mentoring activity and by drawing equal attention to the roles of both mentor and mentee.

Our motive was to investigate participants' views of how the ideal mentor or mentee constitute "good" practice in peer-group mentoring from the perspective of social and collaborative activity. We approach the topic of "ideal mentor and mentee" in terms of the theory of practice and practice architectures (Kemmis & Grootenboer, 2008; Kemmis, Wilkinson, et al., 2014). This theory led us to investigate the participants' role through the concept of *disposition*, which is quite close to the Bourdieuan concept of *habitus*; dispositions are what give the participant the "feel for the game" that makes it possible for them to act appropriately in the field (Kemmis & Smith, 2008b; Kemmis, Wilkinson, et al., 2014). In the next chapters, we discuss theoretical and philosophical starting points of our work, after which we present our empirical study.

1.1. Mentoring and Mentoring Roles in the Research Literature

Mentoring has intrigued educational researchers for many decades as is evident from the vast amount of articles and books on the topic. Many literature reviews (e.g., Ambrosetti & Dekkers, 2010; Butler & Cuenca, 2012; Dominguez & Hager, 2013; Eby, 1997; Hawkey, 1997; Hobson et al., 2009; Huizing, 2012; Orland-Barak, 2014; Roberts, 2000) have tried to collate and structure the research on mentoring, offering general descriptions of the progress and the research strands in the field. Dominguez and Hager (2013) organised mentoring research around three primary and broad theoretical frameworks: (1) developmental, (2) learning and (3) social. These theoretical frames elucidate different aspects of the progress and development of both mentoring practices and mentoring relationships, which we have summarised in Table 1. Although we give distinct attention to each of these frames in order to highlight the important conceptual changes occurring in mentoring practices, we understand that these dimensions are interconnected and that some aspects of progress and development might be related to more than one theoretical frame. Also these dimensions helps us to understand the various conceptualisations of roles in mentoring that foregrounds our investigation.

Developmental theories consider the questions and issues related to professional (career) development, career stages and transitions. This framework is greatly influenced by the work of Levinson (1978) and Kram (1983) who presented phase models of adult development. Mentoring roles are examined in relation to individuals' career progress and how a mentoring relationship can support

Table 1. Summary of the development in mentoring practices and relationships.

Theoretical framework	Development of practices		
		From	To
Developmental	Focus:	Career development	Psychosocial support
	Relationship:	Hierarchical	Lateral
Learning	Focus:	Knowledge transmission	Knowledge transformation
	Relationship:	Unidirectional	Reciprocal
Social	Focus:	Situational adjustment	Reculturing
	Relationship:	Admonition, judgementoring	Equal agents

such development (Dominguez & Hager, 2013). In the field of education, mentoring has played a significant role in teacher induction programmes, which are planned and implemented to support beginning teachers' career progress and to address the problem of teacher attrition (European Commission, 2010). Thus, mentoring is commonly used to retain teachers in the profession. However, the use of mentoring as career support has generated problematic and hierarchical aspects including assessment, supervision and judgementoring (Kemmis, Heikkinen, Fransson, Aspfors, & Edwards-Groves, 2014; Lejonberg, Elstad, & Christophersen, 2015; Long et al., 2012). Alongside the traditional hierarchical mentoring relationship, mentoring as lateral support has steadily gained consideration and become conceptualised as peer mentoring (Eby, 1997). Through these new meanings, mentoring is regarded not only as a support for career development, but also as personal and social support (e.g., Geeraerts et al., 2015). This development has highlighted the humanising features of a mentor as a friend and an empathic supporter in addressing important psychosocial functions (Kram & Isabella, 1985). These personal and social dimensions have inspired researchers to explore the emotional and affective elements of mentoring relationships that also contribute to learning and social aspects of mentoring (Hawkey, 2006).

Learning theories illuminate the critical change in views of learning in mentoring practices (Dominguez & Hager, 2013). Traditionally, mentoring has relied on the behaviouristic learning theory and models of knowledge-transmission (Haggard, Dougherty, Turban, & Wilbanks, 2011). Over the years, however, development of learning theories has shaped mentoring to reflect the ideas of critical thinking, knowledge transformation, and knowledge creation stressed by socio-constructivist theories (Richter et al., 2013; Wang & Odell, 2007). Modern learning theories emphasise reciprocal and dialogical relationship, as adopted in the collaborative and collegial conceptualisations of novel mentoring practices (Heikkinen, Jokinen, & Tynjälä, 2008). The goal of these practices is to create opportunities for formal, informal, and non-formal learning activities (Bottoms et al., 2013; Desimone et al., 2014; Fyn, 2013) that facilitate the development and learning of both mentee and mentor (Ehrich, Hansford, & Tennent, 2004; Tynjälä & Heikkinen, 2011). On the other hand, the research literature underlines the importance of formal mentor education (over informal and non-formal activities) in supporting a positive mentoring relationship through mentors' professional development (Ambrosetti, 2014; Lejonberg & Christophersen, 2015; Leshem, 2014). As learning theories have progressed, the role of mentor has evolved from authoritative, senior expert (Roberts, 2000) to critical friend and partner in dialogue, while the mentee is regarded as an active, critical, and reflective thinker in the mentoring relationship (Ambrosetti & Dekkers, 2010).

Social theories of mentoring describe mentoring relationships in connection to social networks and social environments. Understanding of mentoring has consequently expanded outward from a dyadic relationship to considering broader networks of participants, which has been actualised in mentoring practices based around group formations (Huizinga, 2012). In addition, social theories are not only contributing to the recognition of social networks, but also to rethinking socialisation through mentoring. There is an identified risk that especially beginning teachers are unidirectionally socialised into the existing culture of the school community, causing them to reproduce prevailing practices and absorb taken-for-granted perceptions (Wang & Odell, 2007; Yuan, 2016) and so lose their potential as change agents (Lane, Lacefield-Parachini, & Isken, 2003). Hargreaves and Fullan (2000) outlined that mentoring should be an instrument for school reculturing, which can be accompanied with explicitly identified means and ends (Levine & Marcus, 2010). In this process of reculturing, mentors have a crucial position in defining the nature of socialisation (Butler & Cuenca, 2012, p. 301). By this, we mean that mentors can either hold on to the conservative approach of socialisation that tries to maintain the prevailing situation and compel the newcomer into those circumstances, or, instead, foster the empowerment of the mentees (He, 2009) and rebuild, transform, and recreate the culture of their professional community towards engaging in critical and sustainable change (Mooney Simmie & Moles, 2011). To actualise this change, social theories emphasise the mentees' role as active, empowered agents that make contributions to the work community in collaboration with mentors (Dominguez & Hager, 2013). Thus, according to this thinking, mentors should be considered as equal and supportive

colleagues who build and reshape the community together with mentees in a reciprocal relationship (Edwards-Groves, Brennan Kemmis, Hardy, & Ponte, 2010).

1.2. Peer-group Mentoring from the Perspective of the Theoretical Frames

The practice examined in this study is the Finnish model of peer-group mentoring, which reflects the contemporary view of mentoring practices described in the previous three theoretical frames. The model was established to support teachers' professional development and work well-being (Heikkinen et al., 2012; Pennanen, Bristol, Wilkinson, & Heikkinen, 2016) and is provided for a wide scope of educational professionals (teachers, principals, support staff) from general education to vocational education, ranging from early childhood education to adult education (<http://www.verme.fi>). The key ideas of the model are based on peerness and professional autonomy (e.g., Heikkinen et al., 2012, pp. 38–39), the socio-constructivist learning theory (e.g., Heikkinen et al., 2012), and dialogue and narrative identities (e.g., Estola, Heikkinen, & Syrjälä, 2014). In the Finnish model of peer-group mentoring teachers work in small groups (four to eight teachers) on a voluntary basis to discuss work-related issues and experiences. A typical planned time span of a peer mentoring group is one academic year. Meetings are held once a month and each meeting lasts about two hours. Topics of discussions cover everyday life in schools and often deal with issues that the teachers are currently struggling with: classroom management, interaction with parents, collaboration with colleagues, teachership and professional development, stress at work (Jokinen, Heikkinen, & Morberg, 2012, p. 180).

The Finnish Network for Teacher Induction “Osaava Verme” was set up to coordinate, disseminate and further develop the peer-group mentoring (PGM) model in Finland for the years 2010–2017 with funding provided by the Finnish Ministry of Education and Culture and includes 13 teacher education units from universities and universities of applied sciences. The network organises mentor education programmes covering the whole country. During the Osaava Verme programme over 700 mentors were trained in Finland during 2010–2017 (Osaava Verme, 2017). During years 2018–2019 development of PGM and mentor training continues within the Development Programme of Teacher Education funded by the Finnish Ministry of Education and Culture.

The PGM group members are committed to the meetings per school year and jointly plan the schedule and themes for the meetings. The reported outcomes of the Finnish peer-group mentoring activity have been mainly positive, and the following key benefits have been identified: time and space for reflecting and sharing experience; empowerment and increased self-confidence; professional identity development; and increased motivation and well-being (Aspfors, Hansen, Tynjälä, Heikkinen, & Jokinen, 2012). The main challenges of the model are system-related: (1) the shift from project-based (and project-funded) activity to a consolidated part of the educational system, (2) sufficient resources and allocated time for the professionals to engage in the activity, and (3) awareness and support for mentoring in the education system to promote availability (Markkanen, Pennanen, Tynjälä, & Heikkinen, 2015).

With respect to the *developmental* dimension, one main goal of the peer-group mentoring is to create a consistent support for teacher induction. The availability of induction support for beginning teachers varies widely from school to school in Finland. According to the TALIS 2013 survey, 54% of Finnish schools have no formal induction programme, and new teachers in these schools are typically only provided with informal support or a general introduction to the school and its administration (Taajamo, Puhakka, & Välijärvi, 2015). Peer-group mentoring has shown potential as an effective and resource-wise approach to provide more systematic and relevant support for inducting new teachers in Finnish schools (Geeraerts et al., 2015). While the model functions well as an induction system, it also supports teachers' professional development in other stages of their career (Tynjälä & Heikkinen, 2011, p. 24).

Learning in peer-group mentoring is a process in which learners construct knowledge in social interaction on the basis of their experiences and understanding (Heikkinen et al., 2012, p. 22). A fitting description of peer-group mentoring is collaborative self-development, as group members

work as co-mentors and co-mentees to each other, sharing their experiences and expertise in the meetings (Kemmis, Heikkinen, et al., 2014). However, group members can make their own independent decisions on how to utilise the given support in their daily profession, and peer-group mentoring does not involve any level of assessment, evaluation or inspection. Participants are thus responsible for their own learning.

From the *social theories* perspective, peer-group mentoring emphasises social interaction as a central part of mentoring. Group formation is regarded as one possible approach to changing the tradition of acting alone towards a culture of collegial and collaborative support (Hiltula, Isosomppi, Jokinen, & Oksakari, 2012, p. 69). Peer-group mentoring provides advantages in the richness and variety of support that is offered by the group members. However, the Finnish model of peer-group mentoring is not intended to provide in-depth support for relieving heavy, accumulated, work-related problems and stress. This type of individualised support is addressed through work supervision and work health care in the Finnish context, whereas peer-group mentoring can be considered as preventive support for work-related stress.

In sum, the Finnish model of PGM can be defined as a collaborative group-based learning activity between equal partners, facilitated by a trained mentor, and conducted following the principles of social construction of knowledge, dialogue and peerness.

2. Praxis Orientation to Understand Mentoring Dispositions

Within the broad research on mentoring, consensus on what is *mentoring* or who is a *mentor* seems to be unattainable (Bozeman & Feeney, 2007; Eby, Rhodes, & Allen, 2007; Haggard et al., 2011; Roberts, 2000). A possible explanation for this lies in the practice itself. Mentoring is described as a complex social and psychological activity (Roberts, 2000, p. 162), which seems to be inherently contested (Colley, 2002, p. 259). Mentoring can be seen as a social practice wherein the individual, the practice and the setting are enmeshed in a complex set of structures and actions (e.g., Kemmis, Heikkinen, et al., 2014; Pennanen et al., 2016). Therefore, each practice of mentoring produces an understanding of the role of the participant, which should be considered within the structures of that particular practice located in the specific site inhabited by the specific individuals engaging in the activity. In mentoring research, Moberg (2008) argues that the focus of the mentoring literature has been more on technical, social and political issues rather than moral and ethical ones. As a response, Moberg provides a useful theoretical investigation of the character development of the protégé, although this does not explicitly address the issues relevant to group-based mentoring. To further the moral and ethical discussion, our study focusses on mentoring relationships in group settings. In this study, we are interested in the participants' role in the social interaction contributing to the practice of a specific mentoring activity: the Finnish model of peer-group mentoring. This research approach is facilitated by the resource of the theory of practice architectures (Kemmis, Wilkinson, et al., 2014; Mahon, Kemmis, Francisco, & Lloyd, 2017), yet it is a deliberate choice to focus on the specific aspect within the broad theoretical frame, namely dispositions.

While there are a variety of interpretations of the Aristotelian *praxis* philosophy, in this research we rely on the interpretation that is peculiar to the theory of practice architectures. In Aristotelian thinking, and simply expressed, *praxis* is a distinctive form of action cultivated by *phronesis*, which is a certain type of wisdom and reasoning that aims towards wise, prudent and moral judgement (Kemmis & Smith, 2008b). The theory of practice architectures distinguishes practice and *praxis* in terms of moral commitment: “*practice is used as a term to refer social practices more generally, when actors are not necessarily conscious or aware of the moral import and the social and historical consequences of their actions*”, whereas *praxis* is understood as “... *action that is morally-committed, and oriented and informed by the traditions in a field.*” (Kemmis & Smith, 2008a, p. 4). The Aristotelian roots are emphasised to elevate the meaning of *praxis* from the simple and technical view of “social practice” to morally committed action, however, the view of *praxis* in the aforementioned theory is also influenced by the Marxian tradition, in which *praxis* is considered also as transformative and history-making action (2008a, p. 4). The

view of *praxis* adopted in this study cultivates the idea of cultivating a sustainable, just and healthy society in a global sense as well as the humanising features of *praxis*, which, in its broadest sense, takes account of the whole of human life (Mahon et al., 2017) and is connected to education via a double purpose:

... the purpose of education: to prepare people to live well in a world worth living. On the side of the individual, it concerns the formation of persons; on the side of the social, it concerns the formation of communities and societies ... To achieve this double purpose of the good life for each person and the good life for humankind, education must be conducted in ways that model and foster the good life for humankind. (Kemmis, Wilkinson, et al., 2014, p. 27)

Kristjánsson (2005) notes that currently there is a variety of neo-Aristotelian perspectives in educational research and there is not a single view that would be “all-embracing” and in relation to Kristjánsson’s description of neo-Aristotelianism, the theory of practice architectures is not strictly Aristotelian, but inspired by it. In terms of research the aim is to guide the development of educational *praxis* and education itself (Kemmis, 2010). In our study, taking a kind of Hadotian view, we are not following a system of Aristotelianism, but rather we are in a dialectical exercise with the antique philosophy, giving responses to limited questions (Hadot, 1995, p. 106). Agreeing with Kristjánsson, the theory of practice architectures shares the view in which truths “must be seen as located in particular historical circumstances and social contexts, and as answers to particular questions asked in the intellectual context of a particular time” (Carr & Kemmis, 1986).

According to the theory of practice architectures, practice (or *praxis*) unfolds in *sayings*, *doings* and *relatings*. These are formed not only by the individuals on their own (Edwards-Groves et al., 2010), but also shaped and prefigured by the arrangements that exist beyond the individual, referred to as practice architectures (Kemmis & Grootenboer, 2008). These arrangements are identified in three dimensions: (1) *Cultural-discursive* arrangements are the resources (language, ideas) that enable and constrain the activities of *sayings* (i.e., discussion, thinking); (2) *material-economic arrangements* are the resources (i.e., human and non-human entities, like physical environment, time) that enable and constrain the activities of *doings* affecting what, when, how and by whom something can be done; and (3) *social-political arrangements* are the resources (i.e., community, familial, and organisational relationships) that enable and constrain the *relatings*, the ways in which people relate to each other (Mahon et al., 2017). These practice architectures also enable and constrain the development of dispositions, which we will introduce next.

2.1. Dispositions in the Theory of Practice and Practice Architectures

We explore and explicate the meaning of the concept of disposition from two theoretical and philosophical perspectives: Firstly, we explore the concept by applying the Bourdieusian sense of *habitus* to understand the individual’s stance and ontology in the practice (as this view is present in the theory of practice architectures). Secondly, we take a teleological view of the concept of disposition from the point of view of the Aristotelian philosophy. Both of these theoretical frameworks are on the background of the theory of practice architectures. We view the concept of disposition (or dispositions) as having significance in helping us understand individuals and their actions: their development and ways of being and acting in practice, in the field of practice and in relation to the structures of practice, including also the past history and future potential of the individual. Our view represents a broad understanding of disposition that stands in contrast to many narrow meanings expressed through terms such as (1) temperament; (2) traits; or (3) habits (Freeman, 2007).

Shortly described and widely understood, disposition could be just “acquired personal state” (Nash, 2003). In the theory of practice architectures, dispositions include *forms of understanding* (knowledge), *modes of action* (skills), and *ways of relating* (values) (Kemmis, Wilkinson, et al., 2014, p. 39). However, knowledge, skills, and values are said to have passive and inert connotations (in the sense of cognitive representations). In the view of Kemmis and colleagues, dispositions constitute, in contrast, something that is active and responsive to others, to practices and to the world

(Kemmis, Wilkinson, et al., 2014, p. 66). For this notion of dispositions as having an active form they draw on Bourdieu's (1990, 1995, p. 214) concept of *habitus*, referred to as a set of dispositions that enable participants to operate in a *field* (cultural, economic or social) providing a "feel for the game" (Kemmis, Wilkinson, et al., 2014, p. 66). Describing the process, Nash (1999) conceived *habitus*

as a generative schema in which the forms of elemental social structures come, through the process of socialisation, to be embodied in individuals, with the result that people necessarily act in such a way that the underlying structures are reproduced and given effect.

Although these structures affect the way people act, *habitus* is not strictly determined by social structures but does have an individual line of development (Bourdieu, 1998, p. 81; Nash, 1999, p. 179). Dispositions (*knowledge, skills and values*) in the sense of *habitus* can be understood, then, as personally (and uniquely) developed and embodied qualities, or a structure of qualities, that are socialised and acquired through social practices and that also shape the individual's ways of being proactive, reactive and responsive to the arrangements that enable and constrain possible activities in the site of a practice.

While the Bourdieusian term *habitus* helps us to understand the process of developing disposition in social practice, it does not clearly outline the ultimate aim of development. In Aristotelian terms, *héxis* or *habitus* describes a similar idea to Bourdieusian *habitus*, that of an acquired or incorporated ability, skill, or disposition (Eikeland, 2008, p. 53). However, in Aristotelian virtue philosophy, explicit teleological principles are identified through different states of disposition. The moral development of a human being is teleological: according to Aristotle, everything has its own goal (*telos*) and the goal for a human being is a life worth living (*eudaimonia*; Kakkori & Huttunen, 2007, p. 18). The pursuit of *eudaimonia* is facilitated by the virtues (*aretè*), which come through learning, teaching and habit (Lockwood, 2013). Virtue is an equilibrium between two vices and is considered as a mean relative to each person. To preserve the state of virtue, one should avoid extremes and always hit the mean (Gottlieb, 2009, p. 19). Aristotle (2006, NE 1107a) explained virtue as follows:

... Virtue, then, is a state concerned with choice, in a mean in relation to us, a mean determined by reason, namely the reason by which the person of practical wisdom would determine it. It is a mean between two vices, one of excess and the other of deficiency; further, it is a mean in that some states fall short of and others exceed what should be in feelings and in actions, but virtue finds and chooses the mean.

Thus, disposition (*hexis*) can have two different states, virtuous and vicious. Eikeland (2008, p. 55) notes that there exists a virtuous disposition in every performing entity as a condition that makes this entity able to perform in the best possible way. For a human being, virtues are developed by acting and feeling in a proper way in any given social situation (Kakkori & Huttunen, 2007, p. 20). However, acting in a seemingly virtuous way does not mean that the person doing the act is virtuous. As MacIntyre (2007, p. 149) explains, according to Aristotelian virtue thinking, a "genuinely virtuous agent ... acts on the basis of a true and rational judgement" (*phronesis*). Along with wisdom and rational thinking, acting virtuously also involves the ability to act decisively—to take decisions with confidence and act without undue hesitation (Sherman, 1989, p. 56). Lockwood (2013, p. 27) summarises three characteristics required for an action to be judged as virtuous: that the agent doing the act (1) does the act knowingly, (2) chooses the act for its own sake, and (3) does the act in a "firm and unchangeable" way.

Kristjánsson (2015, p. 24) reminds us of the empirical assumption of Aristotelian virtue philosophy, arguing that there cannot be a reasonably developed philosophical theory of virtue without grounding in empirical knowledge of how people actually think about virtues and the way they inform their character. Hence, our aim for this research was twofold: to identify the relevant dispositions of the participants in peer-group mentoring and to identify the virtue states of these dispositions. These two goals were combined in the following research questions:

What are the participants' conceptions of

- (1) a good mentor's, and
- (2) a good mentee's

dispositions in the Finnish model of peer-group mentoring?

In PGM, mentee designates a group member participating in the meetings, and mentor the person mainly responsible for organising the meetings and facilitating the discussion. These definitions are based on the practices of PGM in Finland. In the Results and Discussion sections the definitions of mentor and mentee will be discussed on more conceptual level on the basis of empirical findings.

3. Methodology

The research data was collected during years 2012–2014 from participants ($n = 30$) in two occasions: (1) in the regional mentor training organised by the Finnish Institute for Educational Research, and (2) from the groups that were located in Central Finland and volunteered for the interviews. The participants represented teachers from general education (primary school, lower and upper secondary schools) as well as teachers from vocational education. However, most of the informants were from general education, and the majority were female. Different career stages (beginning, mid, late) were represented, although most of the participants were in the mid stage of their teaching career. The data for the study consisted of two data sets. The first data set consisted of essays written by 14 mentors during their mentor training. The mentors were asked to present two fictional examples of PGM meetings as written stories (Mottart, Vanhooren, Rutten, & Soetaert, 2009; Watson, 2011). The first story was instructed to be written as a bad example of a PGM meeting and the mentors were asked to reflect on what went wrong and for what reasons. In the second instance, the mentors wrote an example account of a good PGM meeting and explained why it was successful and for what reasons. Although the task instruction was quite general, the stories based on fictional events provided respondents' insights of the meetings, including descriptions of dispositions of both mentees and mentors. The essays provided 37 pages of data.

In order to supplement the data with mentees' points of view, we organised interviews with the mentoring groups. Thus, the second data set consisted of five semi-structured focus group interviews with a total of 16 participants (11 mentees and 5 mentors) and explored topics such as group composition, communication and interaction in the group, roles in the group, how the group was organised and its activities. The interviews were transcribed, producing 90 pages of transcriptions in total.

Our methodology orientation can be understood as a philosophical-empirical inquiry (e.g., Kemmis, Wilkinson, et al., 2014) in which we explicate the descriptions of the dispositions in the peer-group mentoring (empirical side) and engage with the contemporary theory and philosophy of disposition (philosophical side), and, with the use of theory, interpret the empirical circumstances. For the empirical side, we adopted a post-modernist, constructivist narrative approach as we aimed for local, personal and subjective knowledge rather than objective or generalised knowledge (Heikkinen, 2002) through the investigation of interviews and fictional written stories as narratives. We consider this mixture of fictional stories and interviews to fit with Kristjánsson's previously mentioned assumption of empirical grounding, as fictional stories provided an open channel for expression of thoughts and we could compare this with (ontologically) subjective experiences based on real-life events gathered in the interviews. For the philosophical side, our orientation is hermeneutical and we aimed for a construed and coherent interpretation of the subjective experience and fictional narratives through dialogue with the theories and philosophy of disposition and virtues based on the idea of a hermeneutic circle (Moilanen, 2002). The collated characteristics in the results contain items from both fictional stories and interviewed experiences based on actual meetings, which are exemplified through translated excerpts. Names appearing in the excerpts are used as pseudonyms.

Our starting point for the analysis was the scrutiny of dispositions in terms of thematical content analysis. Data was shared between two researchers who used the question "*What constitutes the social disposition of a mentor and mentee?*" to identify (theoretically informed) items that were considered meaningful to the research topic. The social aspect was emphasised for two reasons: (1) the data focuses on the peer-group mentoring meetings, which are an inherently social activity, and (2) the analysis was guided by the researchers' interpretation of dispositions in the peer-group

mentoring in relation to the theoretical frame, which constitutes social conceptions of disposition. Therefore, the end results do not fully explain or exhaustively describe the whole set of dispositions that a participant in peer-group mentoring could possibly obtain, yet our study offers a starting point for dispositional investigation of peer-group mentoring from the social perspective.

The analysis took place in two main phases. In the first phase, a thematic content analysis was carried out. The texts of the both data sets were repeatedly read to identify differences and similarities in descriptions of mentors' and mentees' dispositions. Identified items from the two data sets were initially (and roughly) combined into thematic categories for both mentor and mentee disposition using a conventional word processing programme. Six thematic categories for mentors and seven thematic groups for mentees were produced. The raw and unfinished categories described characteristics such as attendance, equity, trust, motivation, participation and commitment (to mention a few).

At this stage of the analysis the researchers proceeded in the sense of hermeneutical circle to re-evaluate the structure of the items, as it was noted that (1) mentors and mentees shared largely similar characteristics (although a few exceptions were found), and (2) extracts in the data also described different states of certain social characteristics. With respect to the former, the researchers decided to combine similar items as common characteristics, and with respect to the latter, in the second stage of the analysis, the categories were interpreted in the light of Aristotle's description of virtues and vices, as the initial descriptions of the characteristics seemed to bear some resemblance to virtue philosophy. During this process, we did not want to turn the respondents' characterisations into Aristotle's virtues through vigorous interpretation, rather we applied the architecture of Aristotle's virtues and vices, and incorporated the structure with the views of the respondents (for a similar structuring, see Kakkori & Huttunen). The chosen method strove to remain honest to the voice of the respondents, perhaps at the cost of devotion to Aristotelian philosophy. However, since the focus of this study was peer-group mentoring rather than Aristotle's virtues, we aimed for a condensed view of mentoring dispositions in peer-group mentoring. Table 2 shows some example excerpts that were interpreted by the researchers and assessed according to the different states, as either virtue (ideal) or vice (deficit or excess). As the example (Table 2) shows, the statements were either in the first person or related to another group member or the group as a whole. The utterances also seemed to explicate things that had occurred or been actualised in the meeting and how people related to each other in the group. The results can thus be understood as the researchers' interpretations of the respondents (ideal) views of the social characterisations (related to the PGM meetings) that are presented in the structure of virtues and vices drawing from Aristotelian virtue philosophy.

4. Results

As a result (Table 3), we identified 16 characteristics that represented the three dimensions of disposition *deficit*, *ideal* and *excess*, and three characteristics that were described as *bad* or *good* dispositions. These three characteristics were described using a *bad/good* axis since the data did not support any alternative interpretations. For example, the participants made no comments to suggest that a participant in the peer-group mentoring could be identified as overly *present*, too *trustworthy* or excessively *interested in professional development*. The one characteristic that was related only to mentees described their level of engagement in the group. The three dispositions appointed to the

Table 2. Examples of the content analysis.

Excerpt (translated)	Interpretation	Disposition
"... no one else cared to express any opposite opinions [against the 'pack leader']"	Submissive	Deficiency (Vice)
"to be one of the group members"	Equal	Ideal (Virtue)
"She won't listen to others but demands that everyone listens to her"	Dominant	Excess (Vice)

Table 3. Characteristic virtues and vices of a mentor and mentee described by the participants.

Deficit	IDEAL	Excess
<i>Common dispositions for a mentee and a mentor</i>		
submissive	equal	dominant
negligible	peer	superior
uncommunicative	communicative	too talkative
not taking any space	sharing the space with others	taking space from the others
reserved	sharing	thundering
ignoring	attentive	intrusive
dismissive	constructive	upraising
inadvisable	reflective	inconclusive
insensitive	empathic	over emotional
apathetic	calm	uptight
not committed	committed	obsessed
exhausted	energetic	hyperenergetic
<i>Disposition of a mentee</i>		
timid	courageous	arrogant
<i>Dispositions of a mentor</i>		
passive	considerate	commanding
reluctant	motivated	externally motivated
unprepared	prepared	over planning
BAD		GOOD
<i>Common dispositions for a mentee and a mentor</i>		
absent		present
unreliable		trustworthy
not interested in professional development		interested in professional development

mentors' role described their (1) sense of leading the discussion, (2) motivation and (3) preparedness. The remaining characteristics were considered to be dispositions common to both mentors and mentees, even though our research questions were formulated to separately examine these two roles. Since the ways in which the dispositions were expressed were similar irrespective of whether the participant was a mentor or mentee, it was reasonable to combine them as common characteristics. The relation was identified through following utterances:

"[mentor] is a peer, 'cause that's what this is about."

"Mentor was a peer in the discussion ..."

"Mentor perceived herself as one of the group members."

In the following section, each characteristic and its dispositions are demonstrated by example excerpts (derived either from the fictional stories or interviews) that typify each disposition. The statements of every characteristic are presented in the order of *deficit*, *ideal*, and *excess* dispositions. To begin with, *equality* was present in the participants' descriptions of relational hierarchy and how the group members acted towards each other. The submissive state was expressed, for example, by the statement "... no one else cared to express any opposite opinions [against the 'pack leader']"; the ideal state was described, for example, by "to be one of the group members"; and the dominant state was revealed in statements such as "She won't listen to others but demands that everyone listens to her".

Peerness was construed as self-image in relation to experience, where *negligible* was identified as the deficit state by, for example, the statement "as a new teacher he didn't dare". *Peer* as an ideal disposition was expressed in statements related to feelings of shared experience: "That's when I felt like a peer, when I recalled my own starting out as a teacher ... it felt so familiar". *Superior* referred to a negative "lofty" position as captured, for example, by the statement "She seems to be satisfied [...] providing her 'expert' statements".

Communication was naturally identified in the data, as discussion is the main tool of peer-group mentoring: "He was mostly silent" (*uncommunicative*, deficit state), "I think everyone managed to talk

well” (communicative, ideal state), “to begin with, Elsa was constantly talking” (too talkative, excess state). Communication connects also with another characteristic, sense of (social) space, which captured the ideas of participation and belonging: “Lisa felt she didn’t actively participate in discussion and no one seemed to mind that” (not taking any space, deficit state), “group members were actively participating, yet they were polite enough to allow space for others to tell their stories” (sharing the space with others, ideal state), “she filled the space with her own opinions and ignored the others” (taking space from others, excess state). The next characteristic pertains to emotional and personal content of expression through reserved, sharing, and thundering dispositions, expressed in excerpts such as: “Tilda has been very restrained” (deficit state), “it was important that participants could also share their feelings of fatigue and the toughness of the work” (ideal state), “discussion turned into quarrelling and Annie is always in a such bad mood” (excess state).

While the above characteristics emphasise proactive participation, the following characteristics mainly describe reactive participation. Ignoring was expressed by phrases such as “one was focusing on her mobile phone, other was planning her lessons” (deficit state); attentiveness was expressed by phrases such as “deferential nodding” (ideal state); and intrusiveness was expressed, for example, by “She made a verbal attack on Hannah’s views” (excess state). The feedback tone or level of positive reinforcement was described by the phrases “She belittled others’ feelings and experiences” (dismissive, deficit state), “... and you were supported by the others [...], you received advice and were encouraged” (constructive, ideal state), and “attention and recognition is only given to the ‘attractive people’” (upraising, excess state). The amount of reflective feedback was referred to by statements such as “she made no comments on either this or that” (inadvisable, deficit state), “... others have their perspective too ... you were always shown new ways of thinking” (reflective, ideal state), and “... he is constantly sharing odd personal comments that come to mind during the discussion” (inconclusive, excess state). The emotional sensitivity characteristic was identified in its deficit state as insensitivity (e.g., “many of the comments were coloured by cynicism”), its ideal state as empathic (e.g., “... the kind of empathy in the group”), and its excess state as over emotional (e.g., “... and they had heated discussion”).

The remaining common characteristics outlined features of personal presence or appearance. Apathetic described a deficit stance with respect to stress, expressed, for example, as “He doesn’t seem to listen and repeats what is already said—feels like he’s in a torpid state”; calm (ideal state) was captured in phrases like “it was the kind of place where you could calm yourself”; and uptight reflected the excess state “he’s stressed and tensed up”. The characteristics related to commitment to group activity were expressed quite explicitly, i.e., “they are not committed to the activity” (deficit state), “it felt important that every member could attend every meeting throughout the school year” (ideal state), “If they’d have been more frequent, the amount of meetings might have felt too heavy” (excess state, expressed through negation). The last characteristic identified was level of energy, the deficit state revealed in utterances such as “None of the group members had the energy or will to discuss work-related issues.”, the ideal state, for example, by the statement “Others were inspired to share their positive experiences”, and the excess state, for example, by the statement “Sarah, the one who can sort out problems and her son’s ride to his hobbies on her phone all mid discussion—a real ‘power pack’”. Next, we will discuss these identified common characteristics in relation to theory.

5. Discussion

Our aim was to investigate the participants’ conceptions of good mentor and mentee dispositions in the meetings of the Finnish PGM model, as stated in the research questions. The findings highlighted characteristics that concerned the individuals’ stance and attitude, proactive, reactive and responsive participation in the mentoring and, as such, provided valuable information on the dispositional set of the participants in the peer-group mentoring. To answer our research questions, we discuss the features of the dispositions identified in relation to the background and the theory of practice

architectures, and then turn the discussion to different states of disposition elaborated in the Aristotelian structure of virtues and vices.

5.1. What Did We Learn about Dispositions in Peer-group Mentoring?

A clear finding was that the role of mentor in peer-group mentoring is conceptually different to the role of mentor in traditional dyadic mentoring. In relation to broad frames outlined in theoretical background, these dispositions reflect the contemporary views of mentoring by lateral relationship (developmental dimension), reciprocity (learning dimension), and equality (social dimension). Whereas in traditional models recognition as an expert or a skilled professional is a somewhat required attribute, in peer-group mentoring the mentor's role is more about facilitating the meeting (preparation, practical arrangements) and the discussion (guiding, asking questions). Likewise, the role of mentee is not about being subordinate, but being recognised as a member of the group. The designated roles of mentor and mentee in peer-group mentoring do not create fixed positions with respect to expertise. Instead, participants share their knowledge and experiences, and sharing is valuable as such without any formal titles to highlight or prefigure the expertise. Conceptualised roles can be regarded as *cultural-discursive arrangements* that enable and constrain certain understandings and sayings and shape the way people act and relate in practice. Thus, in peer-group mentoring, mentor takes on the disposition of facilitator rather than senior expert, which is an important difference especially in terms of expectations, activities, and outcomes.

Instead of aiming for divided roles, peer-group mentoring seems to promote a sense of equality and peerness. In other words, in order to feel confident enough to share feelings and experiences with others, participants seek common features to identify and relate with. However, our data revealed an interesting dilemma: in addition to seeking common features, the participants also wanted a polyphony of perspectives and experiences in order to promote constructive and reflective discussion. Our interpretation was that a common denominator creates cohesion in the group while diversity serves as a catalyst for reflective discussion and constructive exchange of ideas. The risk here is that a common denominator may create biased or one-sided views while diversity can create distance between group members. Yet no distinctive or systematic items of cohesion or diversity were found in the data. The likely explanation for this variation is the participants' subjective experiences. However, one obvious element was the "flatness" of the group: any sort of hierarchy in terms of power (e.g., teacher vs. principal) was regarded as a negative disposition. The features mentioned above are enabled and constrained by the *social-political arrangements* that elucidate the relationships between the actors. A major question is whether an employee can participate in the same group with her/his supervisor? Based on the ideal views, the simple answer would be no, yet the power relations in the group in terms of organisational hierarchy is an interesting area requiring follow-up research.

From the perspective of the theory of practice architectures, the characteristics should include all three dimensions of disposition. For example, to be identified in the disposition of *equal*, an individual should (1) *know* how to be equal (*forms of understanding*), (2) perform *acts* that an equal person would perform (*modes of action*) and (3) *relate* to others as an equal (*ways of relating*). Evaluating our study in relation to these dimensions, we regard that *forms of understanding* and *ways of relating* are emphasised. Dispositions were expressed in fictional stories and group interviews either as a personal experience (e.g., "I didn't feel confident"), an evaluative utterance directed at another person (e.g., "he acted arrogantly"), or as a group description (e.g., "we got along really well"). These expressions display the different aspects of dispositions focusing on *knowing* and *relating*, which include self-evaluation or self-knowledge, interpersonal evaluation or judgement, and the sense of relating in a group. As *Modes of action* relies on respondents' subjective descriptions, no factual information on this aspect (other than interview responses) is provided in this study. For further investigation, the research setting could include alternative methods to document acts, such as video recording, that would make it possible to compare subjective experiences and factual events and actions performed. The most meaningful material-economic arrangements were time and

place displayed through characteristics of (physical) attendance in the meetings and the use of time, ensuring that every member had their temporal space for participating in discussion.

There is a clear connection between these characteristics and the core principles underpinning the practice of peer-group mentoring—peerness, socio-constructivist learning and dialogue—as it should be, since the participants, the practice and the practice arrangements constitute an intertwined ensemble that is somewhat unique with its own distinct features. Yet, we want to emphasise that these identified characteristics are not confirmed to be the *only* characteristics relevant to peer-group mentoring, as entirely different sets of dispositions may exist that were not exposed in this study. The characteristics described above were the conceptual descriptions revealed by our specific study aimed at identifying the dispositions relevant to the Finnish peer-group mentoring model. Next, we will turn to the moral discussion of the “good and bad” of the dispositions in dialogue with Aristotelian virtue philosophy.

5.2. Dispositions from the Perspective of Virtue Philosophy

In our investigation of virtues and vices, we did not set the ambitious goal of revealing all of the human moral and intellectual virtues identified by Aristotle in our research setting. Instead, our scope was aimed at the entities of mentor and mentee in peer-group mentoring, following the Eikeland (2008) notion of virtue, to find the best possible way to act for the entities. Thus, our Aristotelian treatment does not strive for a holistic approach, but provides us with a useful theoretical structure to display features in a theoretically informed data-driven manner. Also, the refined philosophy of virtues and vices was utilised as an interlocutor to discuss some of the issues of dispositions.

The key question is if the participants act according to virtue and avoid vices, will this contribute to the good practice of peer-group mentoring? Based on an overall view of the identified characteristics, the immediate answer would be yes. As dispositions are suggested to construct a certain set of qualities that are intertwined, then exercising a virtue of one type could predict the success of another virtue, as long as the virtuous acts are not opposing each other. The internal comparison of the dispositions presented does indeed imply that they are connected to each other: a communicative person would also likely be sharing and attentive, for example. Moreover, these identified dispositions may relate also to other dispositions that remained implicit in this study. Granted, as noted, that the view obtained in this study is limited, the specific answer to the above question would nevertheless be that the identified virtues did contribute to the sphere of preferred social activity in the peer-group mentoring meetings.

The deeper or broader moral commitment, which in this study also remained implicit, is the connection to teacher daily work and the community, and whether their participation in peer-group mentoring is reflected in any way outside of the meetings. Based on the respondents' utterances, they did not explicitly point out any connections between peer-group mentoring and performing their daily work of teaching. However, we can make an indirect claim that it is likely that virtuous participants also act in a virtuous manner outside of the meetings. This claim is grounded on two arguments: first, the virtues are somewhat stable qualities, and, second, obtaining a virtuous disposition in one sphere would predict likely success in another dispositional sphere as dispositions are considered to form an interconnected structure (Kristjánsson, 2015, p. 14). In the data, respondents described the meetings, for example, as a place to seek relief, comfort, empathy and reflective discussion on issues encountered in their daily work. Therefore, relating the above arguments to the data, peer-group meetings could be an arena for teachers to develop their *habitus* and bring positive aspects back to the work community.

6. Conclusions

The characteristics of mentor and mentee identified in this study explicate the dispositions that were considered most relevant in peer-group mentoring in the view of the participants. The characteristics

form a certain consensus of what is seen as appropriate or inappropriate in peer group mentoring practice. That is not to say that these would be definite social norms for peer-group mentoring, but we acknowledge the value of these characteristics in giving a sense of what kind of activity is intended to be achieved and maintained in the meetings. As such, the set of characteristics can be used as a conceptual tool for understanding the nature of peer-group mentoring for participants, practitioners or educators, or anybody working with similar mentoring practices. For further study, the research set-up would benefit if the data would be gathered in alternative ways, such as video recording to provide comparison of the subjective experiences. Our research setting proved effective in identifying participants' views of ideal dispositions in peer-group mentoring. A key area for follow-up study would be investigation of how the participants act according to these virtues. Also the current approach relied majorly on researchers' interpretations, therefore it would be meaningful to investigate whether the participants in peer-group mentoring verify these dispositions.

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References

- Ambrosetti, A. (2014). Are you ready to be a mentor? Preparing teachers for mentoring pre-service teachers. *Australian Journal of Teacher Education*, 39(6), 30–42.
- Ambrosetti, A., & Dekkers, J. (2010). The interconnectedness of the roles of mentors and mentees in pre-service teacher education mentoring relationships. *Australian Journal of Teacher Education*, 35(6), 42–55.
- Aristotle. (2006). *Clarendon Aristotle series: Nicomachean ethics, books II-IV* (C. C. W. Taylor, Trans.). Cary, GB: Oxford University Press.
- Aspfors, J., Hansen, S.-E., Tynjälä, P., Heikkinen, H. L. T., & Jokinen, H. (2012). Lessons learnt from peer-group mentoring experiments. In H. L. T. Heikkinen & P. Tynjälä (Eds.), *Peer-group mentoring for teacher development* (pp. 144–170). Milton Park: Routledge.
- Bottoms, S., Pegg, J., Adams, A., Wu, K., Smith Risser, H., & Kern, A. L. (2013). Mentoring from the outside: The role of a peer mentoring community in the development of early career education faculty. *Mentoring & Tutoring: Partnership in Learning*, 21(2), 195–218.
- Bourdieu, P. (1990). *The logic of practice*. Stanford, CA: Stanford University Press.
- Bourdieu, P. (1995). *Outline of the theory of practice*. Cambridge: Cambridge University Press.
- Bourdieu, P. (1998). *Practical reason: On the theory of action*. Stanford, CA: Stanford University Press.
- Bozeman, B., & Feeney, M. K. (2007). Toward a useful theory of mentoring a conceptual analysis and critique. *Administration & Society*, 39(6), 719–739.
- Butler, B. M., & Cuenca, A. (2012). Conceptualizing the roles of mentor teachers during student teaching. *Action in Teacher Education*, 34(4), 296–308.
- Carr, W., & Kemmis, S. (1986). *Becoming critical: Education knowledge and action research*. Philadelphia, PA: Falmer Press.

- Colley, H. (2002). A 'rough guide' to the history of mentoring from a Marxist feminist perspective. *Journal of Education for Teaching: International Research and Pedagogy*, 28(3), 257–273.
- Colvin, J. W., & Ashman, M. (2010). Roles, risks, and benefits of peer mentoring relationships in higher education. *Mentoring & Tutoring: Partnership in Learning*, 18(2), 121–134.
- Crasborn, F., Hennissen, P., Brouwer, N., Korthagen, F., & Bergen, T. (2011). Exploring a two-dimensional model of mentor teacher roles in mentoring dialogues. *Teaching and Teacher Education*, 27(2), 320–331.
- Darwin, A., & Palmer, E. (2009). Mentoring circles in higher education. *Higher Education Research & Development*, 28(2), 125–136.
- Desimone, L. M., Hochberg, E. D., Porter, A. C., Polikoff, M. S., Schwartz, R., & Johnson, L. J. (2014). Formal and informal mentoring complementary, compensatory, or consistent? *Journal of Teacher Education*, 65(2), 88–110.
- Dominguez, N., & Hager, M. (2013). Mentoring frameworks: Synthesis and critique. *International Journal of Mentoring and Coaching in Education*, 2(3), 171–188.
- Eby, L. T. (1997). Alternative forms of mentoring in changing organizational environments: A conceptual extension of the mentoring literature. *Journal of Vocational Behavior*, 51(1), 125–144.
- Eby, L. T., Rhodes, J. E., & Allen, T. D. (2007). Definition and evolution of mentoring. In T. D. Allen & L. T. Eby (Eds.), *The Blackwell Handbook of Mentoring: A Multiple Perspectives Approach* (pp. 7–20). Malden, MA: Blackwell.
- Edwards-Groves, C., Brennan Kemmis, R., Hardy, I., & Ponte, P. (2010). Relational architectures: Recovering solidarity and agency as living practices in education. *Pedagogy, Culture & Society*, 18(1), 43–54.
- Ehrich, L. C., Hansford, B., & Tennent, L. (2004). Formal mentoring programs in education and other professions: A review of the literature. *Educational Administration Quarterly*, 40(4), 518–540.
- Eikeland, O. (2008). *The ways of Aristotle: Aristotelian phronesis, Aristotelian philosophy of dialogue, and action research* (Vol. 5). Bern: Peter Lang.
- Estola, E., Heikkinen, H. L. T., & Syrjälä, L. (2014). Narrative pedagogies for peer groups. *International Teacher Education: Promising Pedagogies (Part A). Advances in Research on Teaching*, 22, 155–172.
- European Commission. (2010). *Developing coherent and system-wide induction programmes for beginning teachers – a handbook for policymakers*. Commission Staff Working document SEC 538. European Commission, Brussels.
- Freeman, L. (2007). An overview of dispositions in teacher education. In M. E. Diez & J. Rath (Eds.), *Dispositions in teacher education* (pp. 3–29). Charlotte, NC: Information Age.
- Fyn, A. F. (2013). Peer group mentoring relationships and the role of narrative. *The Journal of Academic Librarianship*, 39(4), 330–334.
- Geeraerts, K., Tynjälä, P., Heikkinen, H. L. T., Markkanen, I., Pennanen, M., & Gijbels, D. (2015). Peer-group mentoring as a tool for teacher development. *European Journal of Teacher Education*, 38(3), 358–377.
- Gottlieb, P. (2009). *The virtue of Aristotle's ethics*. Cambridge: Cambridge University Press.
- Gut, D. M., Beam, P. C., Henning, J. E., Cochran, D. C., & Knight, R. T. (2014). Teachers' perceptions of their mentoring role in three different clinical settings: Student teaching, early field experiences, and entry year teaching. *Mentoring & Tutoring: Partnership in Learning*, 22(3), 240–263.
- Hadot, P. (1995). *Philosophy as a way of life*. (M. Chase, Trans.). Oxford: Basil Blackwell, 18, 431–445.
- Haggard, D. L., Dougherty, T. W., Turban, D. B., & Wilbanks, J. E. (2011). Who is a mentor? A review of evolving definitions and implications for research. *Journal of Management*, 37(1), 280–304.
- Hargreaves, A., & Fullan, M. (2000). Mentoring in the new millennium. *Theory Into Practice*, 39(1), 50–56.
- Hawkey, K. (1997). Roles, responsibilities, and relationships in mentoring: A literature review and agenda for research. *Journal of Teacher Education*, 48(5), 325–335.
- Hawkey, K. (2006). Emotional intelligence and mentoring in pre-service teacher education: A literature review. *Mentoring & Tutoring*, 14(2), 137–147.
- He, Y. (2009). Strength-based mentoring in pre-service teacher education: A literature review. *Mentoring & Tutoring: Partnership in Learning*, 17(3), 263–275.
- Heikkinen, H. L. T. (2002). Whatever is narrative research? In R. Huttunen, H. L. T. Heikkinen, & L. Syrjälä (Eds.), *Narrative research. Voices of teachers and philosophers* (pp. 13–28). Jyväskylä: SoPhi.
- 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.
- Heikkinen, H. L. T., Jokinen, H., & Tynjälä, P. (Eds.). (2012). *Peer-group mentoring for teacher development*. Milton Park: Routledge.
- Hiltula, A., Isosomppi, L., Jokinen, H., & Oksakari, A. ((2012)). Individual and social meanings of mentoring. In H. L. T. Heikkinen, P. Tynjälä, & H. Jokinen (Eds.), *Peer-group mentoring for teacher development* (pp. 60–70). Milton Park: Routledge.
- Hobson, A. J., Ashby, P., Malderez, A., & Tomlinson, P. D. (2009). Mentoring beginning teachers: What we know and what we don't. *Teaching and Teacher Education*, 25(1), 207–216.
- Hudson, P. (2013). Mentoring as professional development: 'Growth for both' mentor and mentee. *Professional Development in Education*, 39(5), 771–783.

- Huizing, R. L. (2012). Mentoring together: A literature review of group mentoring. *Mentoring & Tutoring: Partnership in Learning*, 20(1), 27–55.
- Izadinia, M. (2015). A closer look at the role of mentor teachers in shaping preservice teachers' professional identity. *Teaching and Teacher Education*, 52, 1–10.
- Jokinen, H., Heikkinen, H. L. T., & Morberg, Å. (2012). The induction phase as a critical transition for newly qualified teachers. In *Transitions and transformations in learning and education* (pp. 169–185). Dordrecht: Springer.
- Kakkori, L., & Huttunen, R. (2007). Aristotle and pedagogical ethics. *Philosophical Inquiry in Education*, 16(1), 17–28.
- Kemmis, S. (2010). Research for praxis: Knowing doing. *Pedagogy, Culture & Society*, 18(1), 9–27.
- Kemmis, S., & Grootenboer, P. (2008). Situating praxis in practice. In S. Kemmis & T. J. Smith (Eds.), *Enabling praxis: Challenges for education* (pp. 37–64). Rotterdam: Sense.
- Kemmis, S., Heikkinen, H. L. T., Fransson, G., Aspfors, J., & Edwards-Groves, C. (2014). Mentoring of new teachers as a contested practice: Supervision, support and collaborative self-development. *Teaching and Teacher Education*, 43, 154–164.
- Kemmis, S., & Smith, T. J. (2008a). *Enabling praxis*. Rotterdam: Sense.
- Kemmis, S., & Smith, T. J. (2008b). Personal praxis: Learning through experience. In S. Kemmis & T. J. Smith (Eds.), *Enabling Praxis: Challenges for Education* (pp. 15–35). Rotterdam: Sense.
- Kemmis, S., Wilkinson, J., Edwards-Groves, C., Hardy, L., Grootenboer, P., & Bristol, L. (2014). *Changing practices, changing education*. Singapore: Springer.
- Kram, K. (1983). Phases of the mentor relationship. *Academy of Management Journal*, 26(4), 608–625.
- Kram, K. E., & Isabella, L. A. (1985). Mentoring alternatives: The role of peer relationships in career development. *Academy of Management Journal*, 28(1), 110–132.
- Kristjánsson, K. (2005). Smoothing It: Some Aristotelian misgivings about the phronesis-praxis perspective on education. *Educational Philosophy and Theory*, 37(4), 455–473.
- Kristjánsson, K. (2015). *Aristotelian character education*. New York, NY: Routledge.
- Lane, S., Lacefield-Parachini, N., & Isken, J. (2003). Developing novice teachers as change agents: Student teacher placements “against the grain”. *Teacher Education Quarterly*, 30(2), 55–68.
- Lejonberg, E., & Christophersen, K. A. (2015). School-based mentors' affective commitment to the mentor role: Role clarity, self-efficacy, mentor education and mentor experience as antecedents. *International Journal of Evidence Based Coaching and Mentoring*, 13(2), 45–63.
- Lejonberg, E., Elstad, E., & Christophersen, K. A. (2015). Mentor education: Challenging mentors' beliefs about mentoring. *International Journal of Mentoring and Coaching in Education*, 4(2), 142–158.
- Leshem, S. (2014). How do teacher mentors perceive their role, does it matter? *Asia-Pacific Journal of Teacher Education*, 42(3), 261–274.
- Levine, T. H., & Marcus, A. S. (2010). How the structure and focus of teachers' collaborative activities facilitate and constrain teacher learning. *Teaching and Teacher Education*, 26(3), 389–398.
- Levinson, D. (1978). *The seasons of a man's life*. New York, NY: Random House.
- Lockwood, T. C. (2013). Habituation, habit, and character in Aristotle's Nicomachean Ethics. In T. Sparrow & A. Hutchinson (Eds.), *A history of habit: From Aristotle to Bourdieu* (pp. 19–36). Lanham, MD: Lexington Books.
- Long, J. S., McKenzie-Robblee, S., Schaefer, L., Steeves, P., Wnuk, S., Pinnegar, E., & Clandinin, D. J. (2012). Literature review on induction and mentoring related to early career teacher attrition and retention. *Mentoring & Tutoring: Partnership in Learning*, 20(1), 7–26.
- MacIntyre, A. (2007). *After virtue: A study in moral theory* (3rd ed.). Notre Dame, IN: University of Notre Dame Press.
- Mahon, K., Kemmis, S., Francisco, S., & Lloyd, A. (2017). Introduction: Practice theory and the theory of practice architectures. In K. Mahon, S. Francisco, & S. Kemmis (Eds.), *Exploring education and professional practice* (pp. 1–30). Singapore: Springer.
- Markkanen, I., Pennanen, M., Tynjälä, P., & Heikkinen, H. L. T. (2015, November). *Vertaisryhmämentorointi opettajien ammatillisen kehittymisen tukena* [Peer-group mentoring supporting teachers' professional development]. Paper presented at the FERA Conference 2015 in Vasa, Finland.
- Moberg, D. J. (2008). Mentoring for protégé character development. *Mentoring & Tutoring: Partnership in Learning*, 16(1), 91–103.
- Moilanen, P. (2002). Narrative, truth and correspondence: A defence. In R. Huttunen, H. L. T. Heikkinen, & L. Syrjälä (Eds.), *Narrative research: Voices of teachers and philosophers* (pp. 91–104). Jyväskylä: So Phi.
- Mooney Simmie, G., & Moles, J. (2011). Critical thinking, caring and professional agency: An emerging framework for productive mentoring. *Mentoring & Tutoring: Partnership in Learning*, 19(4), 465–482.
- Mottart, A., Vanhooren, S., Rutten, K., & Soetaert, R. (2009). Fictional narratives as didactical tools: Using Frank McCourt's teacher man in pre-service teacher education. *Educational Studies*, 35(5), 493–502.
- Nash, R. (1999). Bourdieu, 'habitus', and educational research: Is it all worth the candle? *British Journal of Sociology of Education*, 20(2), 175–187.
- Nash, R. (2003). Social explanation and socialization: On Bourdieu and the structure, disposition, practice scheme. *The Sociological Review*, 51(1), 43–62.
- Orland-Barak, L. (2014). Mediation in mentoring: A synthesis of studies in teaching and teacher education. *Teaching and Teacher Education*, 44, 180–188.

- Orland-Barak, L., & Hasin, R. (2010). Exemplary mentors' perspectives towards mentoring across mentoring contexts: Lessons from collective case studies. *Teaching and Teacher Education*, 26(3), 427–437.
- Osaava Verme. (2017). *The finnish network for teacher induction*. Retrieved from <http://www.osaavaverme.fi/eng>
- Pennanen, M., Bristol, L., Wilkinson, J., & Heikkinen, H. L. T. (2016). What is 'good' mentoring? Understanding mentoring practices of teacher induction through case studies of Finland and Australia. *Pedagogy, Culture & Society*, 24(1), 27–53.
- 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.
- Roberts, A. (2000). Mentoring revisited: A phenomenological reading of the literature. *Mentoring and Tutoring*, 8(2), 145–170.
- Sherman, N. (1989). *The fabric of character: Aristotle's theory of virtue*. Oxford: Oxford University Press.
- Taajamo, M., Puhakka, E., & Välijärvi, J. (2015). *Opetuksen ja oppimisen kansainvälinen tutkimus TALIS 2013: Tarkastelun kohteena alakoulun ja toisen asteen oppilaitosten opettajat ja rehtorit* [Teaching and Learning International Survey TALIS 2013. Examining teachers and principals in primary and secondary education]. Opetus- ja kulttuuriministeriön julkaisuja 2015, 4.
- Tynjälä, P., & Heikkinen, H. L. T. (2011). Beginning teachers' transition from pre-service education to working life. *Zeitschrift für Erziehungswissenschaft*, 14(1), 11–33.
- 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.
- Watson, C. (2011). Staking a small claim for fictional narratives in social and educational research. *Qualitative Research*, 11(4), 395–408.
- Yuan, E. R. (2016). The dark side of mentoring on pre-service language teachers' identity formation. *Teaching and Teacher Education*, 55, 188–197.



III

FINNISH MODEL OF PEER-GROUP MENTORING: REVIEW OF RESEARCH

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Finnish Model of Peer-Group Mentoring: Review of Research

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Finnish Model of Peer-Group Mentoring: Review of Research

Abstract

This article reviews research on the Finnish model of Peer-Group Mentoring (PGM). Theoretical foundation of the model is based on the constructivist theory of learning, concept of autonomy in teaching profession, peer learning and narrative identity work. The model has been disseminated nationwide on the educational sector to promote professional development of teachers and educational staff mainly in primary and secondary education, but also in early childhood education and higher education. The thematic review is based on 46 peer-reviewed publications about PGM in Finland in 2009-19. Research has focused on the following main themes: 1) general aspects and characteristics of the implementation of the model, and 2) mentors' and mentees' experiences. Qualitative approach has been dominant in research. The studies show that both mentors and mentees find PGM a useful tool for individual professional learning and well-being. Indirect influences have been reported about the development of work communities. Main challenges in applying the model are lack of national agreement concerning the organization of PGM and allocation of mentors' and mentees' working time to PGM. It is concluded that PGM as well as teachers' professional development as a whole should be seen as an integral part of the education ecosystem.

Introduction

Mentoring has been globally used as a method of professional development in teaching as well as in other fields. Traditionally mentoring has taken place in pairs, with an idea of an experienced professional transmitting knowledge to a less experienced colleague.^{1,2} Recently, along with the ideas of collaborative learning and professional learning communities, new group-based models called, for example, collaborative mentoring, group mentoring, peer-mentoring or peer-group mentoring have been developed.^{3,4,5,6} In this article we review research focusing on one of such group-based models, the Finnish model of Peer-Group Mentoring (PGM).

In the European context, the European Union provides recommendations and guiding documents for teachers' professional development. In order to tackle new teachers' attrition, EU has set the aim that beginning teachers are offered three types of support: professional, social and personal.⁷ Mentoring can be seen as a method involving potential for all these three forms. It is also stated that the mentoring relationship should be collegial and professional, instead of hierarchical.^{7,8} In Finland, young teacher attrition, a typical problem in many European countries and the USA, has been negligible. Qualification of teachers has required a master's degree in Finnish schools since 1979, and teacher education has been among the most popular choices for university applicants - with the consequence that only the best students get the study place.⁹ Because of the research-based high level teacher education little attention has been paid to the induction phase support until recently. Current educational policy emphasizes the importance of seeing teachers' professional development as a seamless continuum throughout the teacher's

career from initial teacher education to retirement.¹⁰ The Finnish model of PGM has been developed for serving this purpose. It provides a new model of mentoring, targeted not only for beginning teachers but teachers in any phase of their career.

The Finnish PGM model was originally developed and piloted through an action research project in 2007-09 by the Finnish Institute for Educational Research, in close collaboration with four education providers, and funded by the Finnish Work Environment Fund. The theoretical foundation of the model is based on the constructivist theory of learning, the concept of autonomy in teaching profession, peer learning, and narrative identity work. The leading pedagogical principle has been the model of integrative pedagogy, which aims at merging theoretical and practical knowledge with self-regulative and sociocultural knowledge⁶.

Since 2010 the PGM model has been disseminated nationwide on the educational sector through several consecutive projects funded by the Finnish Ministry of Education and Culture to promote professional development of teachers and educational staff mainly in primary and secondary education, but also increasingly in early childhood education, higher education, and liberal adult education. Training of mentors is organized by the Finnish Network for Peer-group Mentoring. The network consists of all Finnish teacher education institutions, including both teacher education departments of universities and vocational teacher education in universities of applied sciences. The main goal of the network is to develop and disseminate the PGM model to support professionals in the educational field.¹¹

In the development of the PGM model key stakeholders in the field, The Trade Union of Education in Finland and The Local Government Employers, have been involved through their participation in the Steering Group of Network for Peer-Group Mentoring. Both of the unions stress the importance of teachers' professional development and collaboration between the stakeholders in educational sector in order to maintain teaching profession appealing and valued choice for future candidates, and to support sustainable development in educational sector. They also regard peer-group mentoring aligning well in the bigger picture of future development plans.¹² In Finland, the education professionals, the wider community, and municipal and national education agencies are broadly agreed that mentoring as collaborative self-development is an appropriate form of mentoring.¹³

In practice, PGM is organized by education providers, usually municipalities. A peer-mentoring group typically has four to eight members who meet once a month during an academic year to discuss their everyday work and work-related challenges. The groups work autonomously, and the group members jointly agree on the topics they deal with, the schedule for the meetings, and the rules of the activity such as confidentiality of the discussions. The group meetings are facilitated by trained mentors who may use a variety of group work methods.¹⁴

In organising PGM, education providers have utilized a variety of models as regards the composition of groups. For example, participants of the groups may

- come from one school or different schools
- teach the same subject or different subjects
- be new teachers or teachers in different career phases

- be in-service teachers only or in-service and pre-service teachers mixed
- get together not only in face-to-face meetings but also by social media tools.

During the years 2017-2019 new PGM applications and practices were experimented and implemented by several projects addressed to different groups such as student teachers, educational leaders and managers, multidisciplinary groups of early childhood educators, basic education and youth work, liberal adult education, educators interested in multicultural education and teachers in higher education.¹⁵ By 2019 approximately 900 mentors have been trained to 150 municipalities, and majority of the mentoring groups are from basic and secondary education. It is estimated that circa 2000 educational professionals are involved in PGM on yearly basis. However, the proportion of teachers participating to mentoring is still low. In the TALIS study (Teaching and Learning International Survey, p. 144-145) by OECD¹⁶ more than 60 % of school leaders in Finland reported that they did not have a mentoring program for teachers in their school. Five per cent of teachers reported that they had an assigned mentor. Although the mentoring culture in Finnish education system is still quite young, the PGM model has attracted attention also in some other professional areas such as health care¹⁷, and librarians' professional development.¹⁸

The Finnish model of PGM differs by certain features from some other international mentoring models. In contrast to typical international models, PGM is developed for serving all teachers and education professionals, not only new teachers. The core of the activity is sharing knowledge and experiences and learning from each other, rather than transmitting knowledge from more experienced colleague to less experienced one. While in some international models the participation into mentoring for new teachers is compulsory and involves assessment of the mentee, in the Finnish model participation is voluntary and no assessment is involved. In the following sections we review on national and international research on the Finnish PGM model.

Review Materials and Methods

In our literature review we addressed the following questions:

- 1) What have been the main characteristics of implementation and dissemination of the Finnish PGM model?
- 2) How have mentors and mentees experienced participation in PGM?
- 3) What is the role of PGM in administrative structures of education?

Literature search

The literature was collected in two phases. First, the participants of the Finnish Network for Peer-group Mentoring were asked to report all the publications they have produced on the topic. As an outcome, a list of 193 publications was compiled. The list 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. There was some overlap between the publications. For example, doctoral dissertations consisted of published articles, and some peer-reviewed articles were based on master's thesis. Many

non-refereed publications were also included into the list. In order to ensure the scientific quality of the material, we set the following criteria for the publications to be included in the review: 1) They had to be peer-reviewed, 2) They had to focus on peer-group mentoring instead of traditional one-to-one mentoring. However, studies comparing these mentoring models were included. 3) Studies had to be conducted in the Finnish context. Thus, we excluded master's theses and non-refereed articles, book chapters and conference papers. The final number of publications for the review consisted of 46 peer reviewed articles and book chapters. However, when clarifying practical information was needed, non-refereed publications were used as additional material. One of the journal articles was still in the review process when writing this article.

In the second phase, a systematic search of literature from ERIC database and the Finnish ARTO database was conducted to ensure that all relevant material was included into the review. The keywords "peer-group mentoring" in title and "Finland" in country field were used in the former database, and "vertaisryhmämentorointi" or "verme" (Finnish acronym for PGM) in the latter. The search from these databases did not produce any other peer-reviewed publications by the members of the Finnish Network for Peer-group Mentoring than those which were already listed. One publication by researchers outside the Network was found¹⁷ but it focused on using the method in health care sector.

For the qualitative analysis, the studies were carefully read, and the following details of the studies were recorded into a spreadsheet: publication forum (international/national), the authors, the topic, educational level(s) and sector(s), research questions, data, analytic methods, main findings and notes (researchers' interpretation). In addition, the topics, analytic methods and findings were recorded. The main findings of the studies were summarized in short phrases such as "Mentees saw PGM as important tool for PD throughout the teaching career. Few significant differences between general and vocational teachers. New conceptualization of PD: development of skills and knowledge, strengthening professional identity, development of work community". In the next phase, the recorded data were carefully read to answer the research questions. In many cases the original studies were consulted.

Results

Features of the included studies

Of the final data of 46 publications 20 focused on PGM model in general education (including primary, secondary and general upper secondary education), five represented vocational education and training, and two higher education (including teacher education). In four studies the PGM was examined in more than one education level or sector. The rest 15 studies were theoretical or conceptual studies in nature. Methodologically, qualitative research approach was dominant, only in one study quantitative methods were used. The selected publications, their data collection and analytic methods, and participants are presented in Appendix 1. In the following sections we present the findings of the thematic review. First, we focus on research on the implementation and dissemination of the PGM model. Second, studies on experiences of mentees and mentors are reviewed, and third,

studies related to the role of PGM in administrative structures of education are presented. Finally, the findings of the review and future perspectives are discussed.

Characteristics of implementation and dissemination of the Finnish PGM model

As to our first research question about the main characteristics of the implementation of the PGM model, two thematic lines of research were identified: studies focusing on different models of organizing mentoring, and studies aiming at identifying prerequisites and characteristics of successful mentoring.

Different models of organizing mentoring

In the early phases of the development of the PGM model Heikkinen, Jokinen and Tynjälä¹⁹ examined different options for organizing mentoring for teachers in Finland. The first mentoring experiments included three models: 1) traditional paired mentoring with one experienced mentor teacher and one novice teacher, 2) peer mentoring with an experienced teacher as a mentor and a group of beginning teachers, and 3) peer-group mentoring with an experienced mentor and a group consisting of both new teachers and experienced teachers. Thus, there were differences in goals and starting points of the models. The objective in the first two models was to support newly qualified teachers in the beginning of their careers, whereas the third model aimed to develop a new form of teachers' continuous professional development to benefit teachers at all stages of their careers.

The comparison of the three models found strengths and challenges in all models. Common to all models was that both the mentees and mentors found mentoring as a functional forum for professional dialogue and sharing experiences¹⁹. The one-to-one model made more personal discussions possible, whereas in the group models discussions brought about a bigger variety of different perspectives and new ideas on the topics dealt with. The study also showed that whatever model is used maintaining mentoring activities require well-defined structures, coordination and management from the local school administration. The lack of mentors was a problem in the paired mentoring model, while in the group models the required number of mentors is smaller. The lack of local or national agreements about organizing mentoring, compensations of mentors and allocation of working time of mentees proved to be problematic inasmuch as organizing the activities may then depend on individuals' motivation and are thus vulnerable when administrative officials change¹⁹.

As the PGM model emphasizes the autonomy of the teaching profession, no strict directions (except the principles described in the Introduction) are given for education providers on how to organize activities. Consequently, a variety of practical applications have been developed, and the model has proved to be flexible enough to be successfully applied for supporting specific groups of educational professionals, for example school principals and school assistants²⁰, migrant teachers²¹, and teachers in small and rural schools.²² Furthermore, the model has been applied in some other professional areas such as health care.¹⁷ A variety of practical group work methods, such as narrative and activating methods²³, dialogue cards²⁴ and externalizing discussion²⁵ have been developed to be used in parallel with conventional group discussions. According to Estola, Heikkinen and Syrjälä²⁶

narrative methodology has proved to be a promising tool for mentoring, both for pre-service and in-service teachers.

The composition of groups may vary from quite homogenous to more heterogeneous ones. Several studies have focused on pros and cons of different solutions. In general, in heterogeneous groups sharing experiences and emergence of new ideas seem to be easier, whereas in homogeneous groups the development of sense of belonging takes less time. For example, in a study conducted in a multi-disciplinary mentoring group at a vocational school Ahokas²⁷ found out that the multi-disciplinary approach was welcomed by the participants as it made it possible for them to share experiences and views with colleagues whom they would not otherwise meet. When teachers from various fields were involved the attention was focused on pedagogy rather than teaching contents. The teachers felt that the dialog with colleagues coming from other domain than their own helped them broaden their perspectives into their work. According to findings, multi-disciplinary composition of the group enriches discussions, but it can also create intra-group tensions.²⁷

Lahdenmaa and Heikkinen²⁸ examined PGM in homogenous and heterogeneous groups in terms of teachers' work communities (from the same school vs different schools), gender, and school level (elementary, primary, secondary). According to their analysis, the strength of a homogeneous group with teachers coming from the same work community was the communality that already existed due to the school's working culture. In contrast, the lack of communality was characteristic to the heterogeneous group whose members came from different schools and did not know each other. Thus, group formation took a considerable amount of time of group meetings. On the other hand, Ahokas²⁷ has observed that "If the group includes too many mentees who have previously known each other there is a risk that discussion among them becomes too dominant.". In a study by Kaunisto, Uitto, Estola and Syrjälä²⁹, the teachers found it important that the participants of the group came from different schools and that they did not know each other beforehand. This helped them in sharing their experiences of and emotions related to challenging situations.

In terms of teachers' experience, heterogeneous mentoring groups have also offered for in-service and pre-service teachers in mixed groups.³⁰⁻³² In these studies the participants have found the mixed group solution fruitful for their learning. On the basis of their analysis Lahdenmaa and Heikkinen²⁸ concluded that both homogeneous and heterogeneous groups have their strengths and weaknesses and that it is important to focus on goals when forming the groups. Similarly, in their study concerning new teachers' experiences, Estola, Syrjälä & Maunu³³ presented a hypothesis that "a suitable portion of similarity and diversity in group composition will bring additional value to the group".

Recently, different models of organizing PGM have been piloted for several professional groups in the education sector, and, in general, in these projects PGM has been regarded as a beneficial form for professional and organizational development. However, finding enough time for PGM in hectic working life is often a challenge that complicates commitment to the group's activities. Further issues to be resolved include the compensation of employees for their time in peer-group mentoring and finding financing models to establish the activity on a regular basis.¹⁵ It has been suggested that a national collective agreement about

organizing PGM is needed to secure its status as an officially recognized form of teacher development.³⁴

Characteristics and prerequisites of successful mentoring

Altogether seven studies highlighted the key factors for successful PGM. "Successful" here refers to positive experiences expressed by the participants, mentors and education providers and to the balance of equality and polyphony of experiences between group members.³⁵ In their study Teerikorpi and Heikkinen³⁶ asked mentors to write stories of successful and unsuccessful mentoring group. On the basis of their narrative analysis they identified several factors contributing to success or failure in PGM, and they could be divided into three main categories: 1) physical and administrative factors, 2) social factors and 3) methodological factors.

The physical factors include, for example, the space and time of PGM meetings. A cosy meeting room at school or outside with refreshments was seen important for creating a welcoming atmosphere. The administrative factors refer to organizational and municipal support for organizing PGM. In Finland, the education system is almost entirely public, and municipalities are education providers on primary and secondary levels. Thus, municipalities decide about financial support to mentoring, such as mentors' fees and place offered for the meetings. Municipalities have autonomy, and there are no national regulations about organizing mentoring, from which it follows that there is variation between municipalities in how much financial support is allocated to this purpose. Very recently, municipalities have cut funding for PGM.³⁴ For this reason, calls for better recognition of peer learning as a form of professional development have been presented.³⁴

The social factors contributing to successful group functioning are related to interaction in peer groups and attributes of the mentor and the group. For example, mentor's and mentees' motivation, mutual encouragement, and active listening of each other were regarded as making open and confidential environment for constructive discussions.³⁶ The methodological factors refer to how the group operates and what is done during PGM sessions. These factors encompass the principles of the PGM activities on one hand and methods on structuring and organizing the meetings on the other hand. As regards to principles, it was seen important that the group members together agree about the common rules, time management, and themes to be discussed. As to methods of structuring the meetings and ways of working it was found that the participants appreciated relaxing start with introduction round, alternation between free and guided discussion, and the use of different group work methods.³⁶ It is also notable that physical, administrative, social and methodological factors are intertwined. For example, engaging in a dialog about one's personal work experiences may cause discomfort and therefore it is regarded important for the success of peer group meetings that clear agreement about confidentiality and shared working principles such as respect and trust is made in the group.^{29,32}

Based on PGM participants' perceptions, Pennanen, Heikkinen & Tynjälä³⁷ formed a conception of the preferred social interaction in peer-group mentoring meetings. In total sixteen characteristics were identified, which expressed proactive interaction, reactive and

responsive interaction, and personal presence. The findings showed that in PGM the mentor's role was seen about facilitating the meeting (preparation, practical arrangements) and the discussion (guiding, asking questions) and that mentor was recognised as an equal member in the group. In PGM, participants share their knowledge and experiences, and sharing is valuable as such without any formal titles to highlight or prefigure the expertise.³⁵

A study by Heikkinen et al.³⁸ interrogated the forms of communication in mentoring practices. Study utilized a Habermasian notion of communicative action, which orientates towards mutual understanding (through free and reciprocal dialogue), and strategic action, which orientates towards pre-determined aims (through giving instructions or advices). The success in mentoring is about finding a balance of the communicative and strategic action and this twofold purpose and rationale highlights the complicated role of a mentor – the tensions between supporting versus judging, or being a mentor versus being an evaluator.³⁸ Mentor can succeed in the task of mentoring by cultivating different kinds of discussions in the group that were identified as *opening up, facilitating, counselling, guiding, and organizing*.

Mentors' and mentees' experiences of participation in PGM

As regards our second research question about the mentors' and mentees' experiences of PGM, most of the studies have focused on mentees. In the following sections we first review studies of mentees' experiences in general and then experiences of new teachers and student teachers in particular. After this, studies focusing on mentors are presented.

Mentees' experiences

In general, teachers, whether new or experienced in their profession, have found PGM important for their professional development and wellbeing.^{29,33,39-40} For example, in a study by Geeraerts et al.³⁹ 96 % of the mentees participating in PGM found peer group mentoring important both at the beginning of teachers' working career and also in later stages of working life, and 84 % of the respondents perceived that the other members of the group supported their professional development. On a personal dimension of support, 84 % of the respondents felt that PGM had strengthened their professional identity. As to social dimension of professional development, 81 % of them agreed with the statement that PGM had improved their collaboration skills. This study also compared vocational teachers and their colleagues in general education, and some significant differences were found. About 55 % of vocational teachers reported that they had changed their working methods due to participating in PGM, whereas 35 % of the general education teachers agreed with this statement. While 38 % of vocational teachers reported that they had been contacted more often by their colleagues about their opinions and advice after participating the PGM, only 10 % of general education teachers had noticed this kind of effect of their PGM experience.

As to the outcomes of participating in PGM, the quantitative study by Geeraerts et al.³⁹ showed that the development of skills and knowledge was experienced as the strongest effect of the activities, and strengthening of professional identity was found the next

important outcome. The effects on the development of work community were the weakest, and here vocational teachers experienced significantly stronger effects than their colleagues in general education. According to qualitative studies, PGM has provided vocational teachers with a place where they have had time to discuss and analyze their changing teacher identities and working cultures in the mid of reforms and change processes going on in the field of vocational education.^{27,41-42} This is experienced as a welcomed movement towards more collegial working in the environment traditionally characterized by strong individualistic working and learning culture.^{43,44}

While the studies above mainly describe the outcomes of PGM activities, Kaunisto, Estola and Niemelä⁴⁵ examined the mentoring process, group dynamics and group development in particular. In their analysis they applied Tuckman's⁴⁶ classical description of stages of group development: *forming, storming, norming, performing, and adjourning*. They conclude that awareness of the group development is useful for mentors in order to find suitable methods in different situations. Research has also indicated that peer groups can contribute to the self-reflection process by supporting participants' self-understanding and offering more realistic views of one's professional options.⁴⁷

The mentoring processes were in focus also in the study by Kaunisto, Uitto, Estola and Syrjälä²⁹ who examined PGM as a forum providing a place for sharing emotionally challenging experiences of teachers. For this purpose the participants appreciated that they did not know each other beforehand, which made it easier for them to share their experiences of challenging situations. The authors concluded that teachers need peer groups where they can mutually share their experiences and emotions related to their work. Other studies have supported these findings, showing that both beginning teachers and experienced teachers find PGM contributing to their well-being by reducing stress, helping them handle problem situations and creating personal networks.⁴⁸ Teachers have consistently reported that sharing experiences in a confidential group can be of crucial importance not only for well-being and coping with stress, but also for new perspectives and ideas to be applied to work.³² Teachers experience that PGM provides them with time for discussion that is not available during busy working time, and that the dialog helps them broaden their perspectives into their work, especially when the group consists of participants coming from different work communities and different fields.^{26,48} In higher education, teachers also have reported that through increasing collegiality the participation in PGM supports the development of educational programs.⁴⁹

Some studies have examined participants' experiences of mixed PGM groups of pre-service and in-service teachers. In a study by Kiviniemi et al.³⁰ thematic analysis of interviews with in-service teachers revealed four main themes of experiences: 1) enjoying group activities, 2) personal professional development, 3) attaching to the professional community, and 4) developing the teacher profession. While in the first theme teachers emphasized relaxation and unwinding, the second theme raised professional reflection and empowerment as benefits of PGM activities. The third theme focused on strengthening the sense of community, and the fourth theme revealed teachers' tendency to serve as a kind of teacher educator while helping student teachers in their professional growth. The researchers conclude that the mixed or 'hybrid' model of PGM contributes to teacher learning in ways which benefit not only teachers themselves but also schools and teacher education

institutions. Similarly, Uitto et al.³³ found mixed groups as a powerful learning sites in which pre-service and in-service teachers are given an opportunity to share their professional experiences, and recommend utilizing this type of learning in teacher education.

Most of the studies on PGM have been conducted on primary and secondary level of education. Onnismaa, Tahkokallio, Lipponen and Merivirta⁴⁰ examined kindergarten teachers' experiences, and their findings are in line with the findings reported above. On the basis of the surveys it was found that the participants experienced peer group mentoring as a meaningful form of professional development. The study identified the following features of PGM as significant for the participants: peer support, confidentiality and openness, time and space for discussion, guidance and professional development, and strengthening of professional self-esteem and identity. The participants were also asked about possible missing things, and for this question many replied just "nothing was missing". Other comments referred to short duration of the mentoring, wishes of more structured working and stricter manner for the mentor, more positive manner, and more guidance and practical tips.

New teachers' and student teachers' perspective into peer-group mentoring

Although peer-group mentoring was developed to organize support for teachers in all stages of their career, a special attention has been paid to the induction phase. Therefore several studies investigate peer-group mentoring from new teachers' perspective. In their international review on beginning teachers' transition from education to working life Tynjälä and Heikkinen⁵⁰ identified several challenges new teachers meet, such as inadequate knowledge and skills, decreased self-efficacy and increased stress, early attrition, newcomers' role and position in a work community, and importance of learning at work. In PGM meetings new teachers have an opportunity to discuss these challenges with their colleagues, either by new teachers themselves or with more experienced ones. Generally, in Finland, newly graduated teachers are well prepared in the research based in-service teacher education.^{9, 51} However, many of the challenges listed above are encountered by new teachers when entering working life, and these experiences seem to appear not only in the classroom arena but also in wider school arena.⁵²⁻⁵³ Thus, several studies emphasize the importance of good social atmosphere with genuine concern and caring amongst the members of the school community, in order to support new teachers' induction.⁵²⁻⁵⁴ New teachers face with the complexity of the work also outside the classroom. For example, relations with parents are often raised as a challenging issue in PGM meetings.^{28, 55}

As a response to the observed need of bridging teacher education, induction support, and continuous in-service professional development^{10, 56-57}, peer-group mentoring has recently been also implemented in teacher education, in order to combine teacher students and in-service teachers in the same groups. In some cases, soon-to-graduate student teachers have participated in an optional PGM course lead by an experienced in-service teacher^{29, 58} whereas in some cases student teachers and in-service teachers as mentees have formed mixed peer groups²⁹⁻³¹ The results have been mainly positive and beneficial to both student teachers and teachers in working life. Main challenges are related to different expectations, commitment and obtained roles in the group activity.³¹ Heikkinen⁵⁹ argues that in terms of teacher education in its pure sense, the aim of PGM is to support professional learning and

well-being at work by promoting teachers' autonomous professional agency, and thus promote education which presumes new teachers as active and autonomous subjects, instead of "schooling" which presumes new teachers as objects of mentoring.

Korhonen et al.³¹ examined student teachers' experiences of participating in mixed peer mentoring groups of in-service and pre-service teachers. In their phenomenographical study they found that students' experiences were overall positive, but varied in terms of depth and the kind of learning it promoted. Four different categories were identified describing students considering PGM either as 1) a coffee break, 2) a forum of peer support, 3) place for identity construction or 4) a professional community. These categories varied in relation to meanings given to PGM meetings, topics of discussion, relationship between theory and practice, relationship between participants and what was learnt. For further development of the mixed groups model of in-service and pre-service teachers the researchers recommend paying more attention to fostering collegial relationships between participants and deeper integrating theoretical understanding with practical know-how.

It seems that the potential of PGM as a forum for sharing challenging and emotionally charged experiences varies between in-service and pre-service teachers' peer groups. While the study by Kaunisto et al.²⁹ showed that a facilitated peer-group was an important forum for in-service teachers to share their emotionally coloured experiences, another study by Lassila et al.⁵⁸ showed that student teachers might find it difficult to reveal their vulnerability and deeper emotions, and to respond constructively to peers' emotional outpouring in a group. Emotionally charged stories were often responded to with laughter and humor or by masking or silencing in student teachers' mentoring group. The researchers suggest that there may be a limit in the amount of vulnerability student teachers are willing to express, and that laughter, masking and silencing were used to hide emotional responses which might be seen as inappropriate for a 'proper' teacher. On the basis of their findings, the authors claim that teacher education should help students constructively reflect and cope with their emotions, and that PGM activities should be paired with other forms of reflection, such as storytelling, reading and writing. Uitto et al.⁶⁰ have found out that through storytelling, teachers can raise issues that might otherwise be difficult to discuss. They conclude that narrative ways of working offer teachers an opportunity to recognize different dimensions of their identity and in this way trigger change.

The experienced benefits of PGM seem to vary to some extent depending on the stage of career of teachers. While newly qualified teachers tend to emphasize the increased self-confidence, more experienced teachers value the creation of networks and broaden their perspectives. Teachers close to retirement age find PGM supporting their motivation. Common to all stages seems to be empowerment, strengthening identity and reduction of stress.⁴⁸

Mentors' experiences

While many studies have shown the benefits of PGM activities for mentees in terms of professional and identity development there is less research on mentors' experiences. Aspfors and Fransson⁶¹ see mentor training as necessary to promote prospective mentors'

competence and understanding about the role of the mentor. In particular, they highlight the understanding of mentors' mission, the importance of concepts and perspectives, and analytical ability as well as the development of relational skills and communication skills. They also stress that to be successful, mentor training needs the integration of theory and practice.⁶² Jokinen, Markkanen, Teerikorpi and Heikkinen⁶³ have reported on mentors' feedback concerning mentor training and new mentors' experiences of PGM. According to this report, mentor training was successful in integrating theory and practice, and the mentors found training as necessary for acting as a mentor in PGM. It has also been suggested that PGM training, emphasizing peerness, can be applied for leaders' training especially when new orientation to leadership is needed in organizational change and when professionals need to collaborate in teams and networks for developing their work.⁶⁴

Studies on mentors' experiences of PGM have shown that mentors' conceptions of mentoring vary.⁶⁵ For some, mentoring is about discussing and solving everyday problems, whereas some others emphasize collaborative reflection on more general issues related to work and professional identity. Shared understanding seems to prevail about mentors' main task, that is, supporting teachers' well-being at work. Acting as a mentor is also seen as a learning process²⁵. Knowledge is shared and built together, rather than transformed from mentor to mentee. In addition to widened perspectives, mentors also have reported about feelings of collegial respect, sense of professional ethics, and personal positive disposition towards professional growth.⁶⁶ In its best participation in PGM has empowered both mentees and mentors.

Kukkonen, Ranne and Korke²⁵ emphasize dialogue as a central principle of mentoring encounter, and illustrate mentoring as an expedition with no defined destination. The interaction between the mentor and the other participants of the group is described as identity negotiation. In mentoring discussions 'the problems' are externalized, that is, separated from people, rather than internalized. In this way it is possible to avoid thoughts such as 'I am a bad teacher' or 'I am not able to join the work community'. As externalized the problems keep being separate from the identity of teacher, and the discussion about the problem is easier. In this kind of discussion the role of the mentor is not limited to being as a listener, questioner or supporter. The mentor is also a learner who builds his or her own teacher identity through externalized discussions with the group members. When encouraging and supporting the mentees the mentors start to see themselves and the problems of their own work communities in new light. In this way learning of the mentor may have indirect effects for the workplace development in the mentors work community.

Based on Erikson's⁶⁷ theory of psychosocial development Laes, Tenhunen and Hanhela⁶⁸ examined mentoring in terms of generativity. In Erikson's theory psychosocial development proceeds through eight stages, and in case of successful development an individual in middle adulthood achieves the state of generativity. Peculiar to this stage is that an individual strives to take care of other people, support younger generations and contribute to society. The authors found the concept of generativity describing well not only the teaching profession but also the role of mentor in peer groups. In PGM generativity manifests itself as concrete caring, attention and little gestures that get the members of the group feel welcomed, respected and appreciated.

Peer-group mentoring involves intergenerational learning⁶⁹⁻⁷⁰ in which younger and older generations meet each other in dialogical conversations. Geeraerts et al.⁷⁰ examined what and how teachers learn from their older and younger colleagues. In this study the participants were 11 Finnish teachers who acted as mentors in PGM groups, and 16 Belgian teachers who participated in a study of intergenerational knowledge brokerage among teachers. The participants reported that from their younger colleagues they had learnt innovative teaching methods and ICT skills, whereas from their more experienced colleagues they had learnt classroom management, practical information, self-regulation and community building. Both from younger and older teachers the participants reported learning of attitudes and different ways of being a teacher. In other words, teacher identity seems to be constructed in interaction between colleagues in different phases in their career. As the most important sources of learning teachers reported to be informal activities and relationships, mentoring in its different forms, seminars and working in teams.

PGM in Administrative Structures of Education

Our third research question pertained to the role of PGM in wider context of administrative structures of education. Here, two thematic research lines could be recognized: studies pertaining to the potential of PGM in workplace development in schools and colleges, and international comparative studies on national policies and models of mentoring.

PGM as method for workplace development

Some studies have explored the potential of PGM not only as a method of teachers' individual professional development, but also as a strategic approach to develop the school community as a whole. In a study by Geeraerts et al.³⁹ it was found that majority of participants of PGM felt that it had generated ideas for developing a work community. The finding suggests that in addition to personal professional development, the influences of PGM may be reflected to the whole school community. This finding was significantly stronger in vocational schools.

Financial and functional support from the municipality as well as the principals' role have proven to be important in order to integrate mentoring into municipality's long-term continuing education strategy.⁷¹ One example is the city of Kokkola where peer-group mentoring has been embedded in the human resource development (HRD) strategy of educational staff.⁷² To contrast the individualistic working culture, PGM has been intentionally enacted as a form of professional learning community, which presupposes awareness of four conditions: understanding of (1) how the school functions, (2) what the prerequisites and conditions for developing school activities are, (3) how the developed operations and cultural characteristics are, and (4) how the tools and operations that are used to change school appear to the teacher. Johnson and Alamaa⁷² argue that in Kokkola, peer-group mentoring has met these conditions and because of that, teachers have experienced the collegial sharing, trust and encouragement in everyday work. In some other cases, it has turned out that lack of support from the municipality due to financial reasons has caused challenges.¹⁵

Hiltula et al.⁴⁸ describe also the indirect influences of mentoring to school community based on the individuals' development. Participants in peer-group mentoring have reported the experiences of empowerment and creating networks with colleagues from different schools. Empowerment may encourage teachers to be more interactive in their school community and, for example, encourage them to introduce new ideas. Networking in the individual level can promote the collaboration between schools. Similar findings about indirect influences of PGM has suggested a study by Kukkonen et al.²⁵

The findings about the indirect influences of PGM into the wider school community development are supported by a holistic model of professional growth by Nissilä and Paaso.⁷³ The main idea is that professional growth starts from the individual's personal development and gradually moves towards collegial and organizational development. Essential parts of the model are versatile interaction, ethical reflections, awareness of various experiences, and theoretical scrutiny, and these can be manifested in peer-group mentoring.

International comparisons

International comparisons between different mentoring models may reveal the distinguishing features of the model, and some of such studies were available regarding the Finnish model of peer-group mentoring. In the comparison of the induction phase mentoring models of Estonia, Finland, and Sweden, Jokinen, Morberg, Poom-Valickis and Rohtma⁷⁴ noted that PGM was characterized by the decentralized educational system, in which local municipalities have the main responsibility to organize support for teachers. Mentoring was described as the main strategy for teacher induction in most countries referred and examples had similarities and differences in terms of the implementation of mentoring, mentor education and organizational support for mentoring. The key finding was that mentoring needs to be addressed, organized and developed in terms of the local conditions in order to be vital and meaningful.

In his analysis of the differences of Finnish and Swedish educational cultures and their impact on mentoring approaches Fransson⁷⁵ concluded that the Finnish model of PGM was developed through persevering pilot projects based on local circumstances and conditions (bottom-up approach), whereas in Sweden political decision makers have tended to directly adopt international models of mentoring which are being applied in a centrally directed way (top-down approach). One example was the aim to involve mentors participating in formal assessment of new teachers. In contrast, in Finland mentoring has been seen as a forum for learning without assessment. The emphasis on the autonomy of teaching profession has also been identified as a typical feature in the Finnish mentoring model.^{8-9,13,37,38,76,77,78}

Kemmis, Heikkinen, Fransson, Aspfors and Edwards-Groves¹³ provided examination of the practices of new teachers' mentoring in Australia, Finland and Sweden. They identified three archetypes of mentoring, which demonstrate the differing projects constituted by the particular arrangements, referred as practice architectures, in these empirical cases:

- Supervision: assisting new teachers to pass through probation. (Swedish case)
- Support: traditional mentoring where a more experienced teacher assists a mentee. (Australian case)

- Collaborative self-development: professional growth through collegial mentoring. (Finnish case, PGM).

The important notion of the PGM was that collaborative self-development refers to both individual and collective professional growth, which is supported by the practice architectures in the Finnish education system. As an example of the Finnish policymaking, politicians and policy-makers have not expressed interests to increase the surveillance of teachers, or reduce the autonomy of teaching profession. Thus, the claim can be justified, that society does rely on teachers' professional ethics to develop their skills and competences, the school communities and teaching profession in Finland, and so the Finnish landscape for PGM can be described as high-trust environment and defined by the *autonomous professionalism*.³⁸ This applies also to newly graduated teachers, since there is not an accreditation process and new teachers are assumed to have the necessary requirements for working life based on the extensive initial teacher education.⁷⁷

Discussion

This review has shown that research on the Finnish model of peer-group mentoring has covered a range of topics from individuals' experiences to organizational and administrative perspectives. The issues emerging from studies can be grouped into the following themes, modified and elaborated from Aspfors et al.⁷⁸:

1. PGM in the continuum of teacher development
 - challenges of transition from teacher education to teaching profession
 - PGM as a tool to support newly qualified teachers
 - PGM as a tool to support teachers throughout career
2. PGM in practice
 - factors contributing to successful PGM
 - different mentoring and PGM models
 - experiences of mentees and mentees
 - group formation and group dynamics
 - role and dispositions of the mentor and mentees
3. Feasibility of PGM in terms of professional well-being
 - potential to develop well-being at work
 - influences into working community
4. PGM and the administrative structures of education
 - roles of the national administration, municipality and school principals

Table 1 summarizes the main results of PGM studies. The table is elaborated from our previous review on PGM in the early phase of the development of the model ⁷⁸. In the original version, the table presented two main themes of research: prerequisites of functional mentoring, and outcomes of PGM. As more recent studies have revealed also challenges in organizing PGM, we added this theme into the revised table. Furthermore, while the original table summarized the findings of early studies on the individual and organizational level, national level is added into the new version. Thus, the findings presented in Table 1 pertain to the following main themes: 1) prerequisites of functional mentoring activities, 2) outcomes, benefits and implications of PGM, and 3) challenges of

the model. As regards the tiers of analysis, the findings can be classified into the three categories: findings related to individual and groups, findings pertaining to community and organization, and findings concerning national issues.

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In addition to the significance of individual and group level social and methodological factors, the studies concerning prerequisites of functional mentoring have revealed the importance of administrative and organizational support for implementing PGM. The model has been developed as a bottom-up endeavor, and this may be the reason why it seems hard to achieve a sustainable position for it as a form of teacher development. Without legislation or national collective agreement about the principles and conditions of the activities PGM does not have an officially recognized 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 low proportion of teachers participating in mentoring. Thus, conceptual change in terms of what is regarded as professional development is needed.

As to the individual and group level findings, the studies on mentors' and mentees' experiences of PGM have been highly positive from teachers' wellbeing as well as professional and identity development perspective. The challenges relate to managing group dynamics, time management and commitment.

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. However, most of the studies have been conducted during or soon after the PGM period (usually one year long), whereas studies on long term effects are still called for. For example, it would be important to examine more the reported indirect influences of PGM on school development on the organizational level. An interesting question would be whether PGM practices contribute to change from individualistic working culture towards more collegial and networked culture.⁷⁹

Methodologically, research on PGM has been dominantly qualitative, which can be explained by the fact that both the concept of PGM and the practices associated with it are still young. Therefore, it is important to develop understanding of the characteristics of the model. In the future, more quantitative studies are welcome to examine the extent of experiences and characteristics of the model. Furthermore, studies from the ecosystems or ecologies of practices perspective⁸⁰ are needed in order to understand the nature of the development of the PGM model in relation to wider educational policy context.

Based on the review of research, the Finnish model of PGM has been a successful innovation in the field of professional development. However, we stress that due to different socio-cultural contexts, mentoring models cannot be borrowed from one national context to another as such. The Finnish model is based on shared values of the Finnish society and education system, and the model as such may not function in a similar way in different

societies. It is concluded that PGM as well as teachers' professional development as a whole should be seen as an integral part of the education ecosystem.

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Competing interests

Hannu Heikkinen, Ilona Markkanen, and Matti Pennanen are the coordinators of the Finnish Network for Peer-group Mentoring, which has been developing the PGM model and training of mentors. Päivi Tynjälä used to be a member of the coordination group till 2016.

References

1. Roberts, A. 2000. Mentoring Revisited: a phenomenological reading of the literature. *Mentoring & Tutoring: Partnership in Learning* **8**: 145–170.
2. Orland-Barak, L. (2010). *Learning to Mentor-as-Praxis: Foundations for a Curriculum in Teacher Education* (Vol. 4). Springer Science & Business Media.
3. Bozeman, B., and Feeney, M. K. 2007. Toward a useful theory of mentoring: A conceptual analysis and critique. *Administration & Society*, **39**: 719-739.
4. Bozeman, B., Darwin, A., and E. Palmer. 2009. Mentoring circles in higher education. *Higher Ed. Res. & Dev.* **28**: 125–136.
5. Huizing, R. 2012. Mentoring together: a literature review of group mentoring. *Mentoring and Tutoring: Partnership in Learning* **20**: 27–55.
6. Heikkinen, H., Jokinen, H., & Tynjälä, P. 2012. Teacher education and development as lifelong and lifewide learning. In *Peer-group Mentoring for Teacher Development*, H. Heikkinen, H. Jokinen, & P. Tynjälä Eds.: 3–30. London: Routledge.
7. 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.

8. Välijärvi, J., & Heikkinen, H. 2012. Peer-group mentoring and the culture of education in Finland. In *Peer-group Mentoring for Teacher Development*. H. Heikkinen, H. Jokinen, & P. Tynjälä, Eds.: 31–40. London: Routledge
9. Sahlberg, P. 2011. *Finnish Lessons*. New York, NY: Teachers College Press.
10. Ministry of Education and Culture. 2016. Teacher Education Development Program. Assessed August 5, 2019.
<https://minedu.fi/documents/1410845/4183002/Teacher+Education+Development+Programme+2016>
11. Finnish Network of PGM. 2019. Website, August 30, 2019.
<http://osaavaverme.wixsite.com/verme/en>
12. Koivisto, Yli-Suomu & Pakarinen, 2012. Mentorointi ja osaamisen kehittäminen. In *Osaaminen jakoon: Vertaisryhmämentorointi opetuslalla*. H. Heikkinen, H. Jokinen, I. Markkanen, & P. Tynjälä, Eds.: 255-267. Jyväskylä: PS-Kustannus.
13. Kemmis, S., Heikkinen, H., Fransson, G., Aspfors, J., et al. 2014. Mentoring of new teachers as a contested practice: Supervision, support and collaborative self-development. *Teaching and Teacher Ed.*, **43**: 154–164.
14. Heikkinen, H., Jokinen, H., Markkanen, I., & Tynjälä, P. Eds. 2012. *Osaaminen jakoon: Vertaisryhmämentorointi opetuslalla*. Jyväskylä: PS-Kustannus.
15. Pennanen, M., Heikkinen & Markkanen, I. Eds. 2019. *Verme² testaa: Kokemuksia vertaisryhmämentoroinnin soveltamisesta*. Jyväskylä: Jyväskylän yliopisto: Koulutuksen tutkimuslaitos. <http://urn.fi/URN:ISBN:978-951-39-7799-3>
16. OECD. 2018. *TALIS 2018 Results (Volume I). Teachers and School Leaders as Lifelong Learners*. Paris: OECD. Assessed Nov 10, 2019.
DOI:<https://doi.org/10.1787/1d0bc92a-en>
17. Hynynen, M.-A., Ojala, K., & Abdelhamid, P. 2016. Vertaisryhmämentorointi – yhdessä oppimista ja osaamisen jakamista. *Sosiaalilääketieteellinen Aikakauslehti*, 53(1). <https://journal.fi/sla/article/view/55933>. Assessed August 29, 2019.
18. Koulutusaineistot, 2019. Kyllä me taidamme! Vertaisoppimisen ideapäivä 11.3. Assessed August 28, 2019.
<https://uudenmaankirjastot.fi/aineistopankki/koulutusaineistot/>.
19. Heikkinen, H., Jokinen, H. & Tynjälä, P. 2008. Reconceptualising mentoring as a dialogue. In *Newly Qualified Teachers in Northern Europe*. G. Fransson & C. Gustavsson, Eds.: 107-124. University of Gävle. Teacher Education, Research Publications 4.
20. Mäki, P. 2012. Diverse landscapes of mentoring. In *Peer-group mentoring for teacher development*, H. Heikkinen, H. Jokinen, & P. Tynjälä, Eds.: 71–77. London: Routledge.
21. Ennser-Kananen, J., & Ruohotie-Lyhty, M. 2019. *I'm a foreign teacher": Legitimate positionings in the stories of a migrant teacher*. [Submitted]
22. Kalberg-Granlund & Korpinen, 2012. Vertaistuki pienessä koulussa. In *Osaaminen jakoon: Vertaisryhmämentorointi opetuslalla*. H. Heikkinen, H. Jokinen, I. Markkanen, & P. Tynjälä, Eds.:159-169. Jyväskylä: PS-Kustannus.
23. Estola, E. Aho, J., Kaunisto, S-L. Moilanen, A. & Tervonen, J. 2012. Kerronnalliset ja toiminnalliset menetelmät. In *Osaaminen jakoon: Vertaisryhmämentorointi opetuslalla*. H. Heikkinen, H. Jokinen, I. Markkanen, & P. Tynjälä, Eds.:155-172. Jyväskylä: PS-Kustannus.

24. Aarnio, H. & Mäki-Hakola, H. 2012. Dialogikortit mentorin työkaluina. In *Osaaminen jakoon: Vertaisryhmämentorointi opetuslalla*. H. Heikkinen, H. Jokinen, I. Markkanen, & P. Tynjälä, Eds.:125-148. Jyväskylä: PS-Kustannus.
25. Kukkonen, H. Ranne, K. & Korho, K-M. 2012. Vastavuoroinen oppiminen vermessä. In *Osaaminen jakoon: Vertaisryhmämentorointi opetuslalla*. H. Heikkinen, H. Jokinen, I. Markkanen, & P. Tynjälä, Eds.:149-158. Jyväskylä: PS-Kustannus.
26. Estola, E., Heikkinen, H., & Syrjälä, L. 2014. Narrative pedagogies for peer groups. In *International Teacher Education: Promising Pedagogies (Part A)*, C. J. Craig & L. Orland-Barak, Eds.:155-172. Bingley: Emerald.
27. Ahokas, M. 2012. A multiprofessional mentoring group at a vocational school. In *Peer-group Mentoring for Teacher Development*, H. Heikkinen, H. Jokinen, & P. Tynjälä, Eds.: 89–96. London: Routledge.
28. Lahdenmaa, M., & Heikkinen, H. 2012. Experiences of peer-group mentoring in homogenous and heterogenous groups. In *Peer-group Mentoring for Teacher Development*, H. Heikkinen, H. Jokinen, & P. Tynjälä, Eds.: 97–103. London: Routledge.
29. Kaunisto, S.-L., Uitto, M., Estola, E., & Syrjälä, L. 2009. Ohjattu vertaisryhmä haavoittuvuudesta kertomisen paikkana. *Kasvatus*, **40**, 454–464.
30. Kiviniemi, U., Heikkinen, H., Tynjälä, P., & Martin, A. 2019. Running a hybrid: Mingling in-service and pre-service teachers in peer-mentoring groups. [Submitted]
31. Korhonen, H., Heikkinen, H., Kiviniemi, U., & Tynjälä, P. 2017. Student teachers' experiences of participating in mixed peer mentoring groups of in-service and pre-service teachers in Finland. *Teaching and Teacher Ed.*, **61**, 153–163.
32. Uitto, M., Kaunisto, S.-L., Kelchtermans, G., & Estola, E. 2016. Peer group as a meeting place: reconstructions of teachers' self-understanding and the presence of vulnerability. *Int.J. of Ed. Res.*, **75**, 7–16.
33. Estola, E., Syrjälä, L., & Maunu, T. 2012. The first years as a teacher. In *Peer-group Mentoring for Teacher Development*, H. Heikkinen, H. Jokinen, & P. Tynjälä, Eds.: 43–51. London: Routledge.
34. Heikkinen, H.L.T., Markkanen, I., & Pennanen, M. 2019. Johtopäätöksiä ja suosituksia. In *Verme²testaa. Kokemuksia vertaisryhmämentoroinnin soveltamisesta*. M. Pennanen, I. Markkanen & H.L.T. Heikkinen, Eds.:83-88. Jyväskylän yliopisto: Koulutuksen tutkimuslaitos.
35. Wittek, D., Ruohotie-Lyhty, M., & Heikkinen, H. 2017. Mentoring im Berufseinstieg von Lehrpersonen – ein bilateraler Vergleich zwischen Deutschland und Finnland. *Die Deutsche Schule*, **22**(1), 34–42.
36. Teerikorpi, S., & Heikkinen, H. 2012. Keys to success. In *Peer-group Mentoring for Teacher Development*, H. Heikkinen, H. Jokinen, & P. Tynjälä, Eds.: 121–128. London: Routledge.
37. Pennanen, M., Heikkinen, H. & Tynjälä, P. 2018. Virtues of mentors and mentees in the Finnish model of teachers' peer-group mentoring. *Scandinavian J. of Ed. Res.* <https://doi.org/10.1080/00313831.2018.1554601>
38. Heikkinen, H., Wilkinson, J., Aspfors, J., & Bristol, L. 2018. Understanding mentoring of new teachers: Communicative and strategic practices in Australia and Finland. *Teaching and Teacher Ed.*, **71**, 1–11.
39. Geeraerts, K., Tynjälä, P., Heikkinen, H., Markkanen, I., et al. 2015. Peer-group mentoring as a tool for teacher development. *Eur. J. of Teacher Ed.*, **38**, 358–377.

40. Onnismaa, E. L., Tahkokallio, L., Lipponen, L., & Merivirta, J. 2016. Lastentarhanopettajien ryhmämuotoinen vertaismentorointi ammatin induktiovaiheen tukena. [Kindergarten teachers' group-based peer mentoring as support for the induction phase in the profession] Research report of a mentoring project. City of Helsinki, Early childhood services and University of Helsinki, Department of Education.
41. Alanko-Turunen, M. and Pasanen, H. 2012. Verme ammatillisen opettajan tukena muutosten kentällä. In *Osaaminen jakoon: Vertaisryhmämentorointi opetuslalla*. H. Heikkinen, H. Jokinen, I. Markkanen, & P. Tynjälä, Eds.:173-187. Jyväskylä: PS-Kustannus.
42. Nissilä, S.-P. 2013. The vocational teacher's changing role and identity in changing contexts. In *Practical skills, education and development: Vocational Education and Training in Finland*. K. Aaltonen, A. Isacson, J. Laukia, & L. Vanhanen-Nuutinen, Eds.: 95–108. Helsinki: Haaga-Helia.
43. Nissilä, S.-P., Karjalainen, A., Koukkari, M., & Kepanen, P. 2015. Towards competence-based practices in vocational education – what will the process require from teacher education and teacher identities? *CEPS J.*, **5**(2), 13–34.
44. Töytäri, A., Tynjälä, P., Piirainen, A. & Ilves, V. 2017. Higher education teachers' descriptions of their own learning: a quantitative perspective. *Higher Education Research & Development* **36**, 1295-1304.
45. Kaunisto, S.-L., Estola, E., & Niemistö, R. 2012. The group as a context for peer-group mentoring. In *Peer-group Mentoring for Teacher Development*. H. Heikkinen, H. Jokinen & P. Tynjälä, Eds.:112-120. London: Routledge.
46. Tuckman, B. 1965. Developmental sequence in small groups. *Psychological Bulletin* **63**, 384-399.
47. Kaunisto, S.-L., Estola, E., & Leiman, M. 2013. "I've Let Myself Get Tired" – one teacher's self-reflection process in a peer group. *Reflective Practice*, **14**, 406–419.
48. Hiltula, A., Isosomppi, L., Jokinen, H., & Oksakari, A. 2012. Individual and social meanings of mentoring. In *Peer-group Mentoring for Teacher Development*, H. Heikkinen, H. Jokinen, & P. Tynjälä Eds.: 60–70. London: Routledge.
49. Tillander, K. 2018. Vermestä voimaa – vertaisryhmämentorointi tukemassa opettajan jaksamista ja ammatillista kehitystä. Teoksessa *TAMK konferenssi – TAMK conference 2018*. T. Kenttälä-Koivumäki, Ed.:134–142. Tampere: Tampereen ammattikorkeakoulu. Assessed August 5, 2019. <https://www.tamk.fi/-/tamk-konferenssi-tamk-conference-2018>
50. Tynjälä, P., & Heikkinen, H. 2011. Beginning teachers' transition from pre-service education to working life: Theoretical perspectives and best practices. *Zeitschrift für Erziehungswissenschaft*, **14**, 11–34.
51. Aspfors, J., & Eklund, G. 2017. Explicit and implicit perspectives on research-based teacher education – newly qualified teachers' experiences in Finland. *J. of Education for Teaching: International Research and Pedagogy*, **43**, 400–413.
52. Aspfors, J., Bendtsen, M., & Hansén, S.-E. 2011. Nya lärare möter skola och klassrum. In *Allmädidaktik en vetenskap för lärare*. S.-E. Hansén & L. Forsman, Eds.: 331–353. Lund: Studentlitteratur.
53. Aspfors, J., Bendtsen, M., Hansén, S.-E, & Sjöholm, K. 2011. Evolving views of the teaching profession: Voices from student teachers and newly qualified teachers. In *Becoming a teacher. Nordic perspectives on teacher education and newly qualified*

- teachers. U. Lindgren, F. Hjärdemaal, K. Sjöholm, & S.-E. Hansén, Eds.: 23–46. Vasa: Åbo Akademi University.
54. Jokikokko, K., Uitto, M., Deketelaere, A., & Estola, E. 2017. A beginning teacher in emotionally intensive micropolitical situations. *Int. J. of Ed. Res.* **81**, 61–70.
 55. Aspfors, J., & Bondas, T. 2013. Caring about caring: Newly qualified teachers' experiences of their relationships within the school community. *Teachers and Teaching: Theory and Practice*, **19**, 243–259.
 56. Jokinen, H., Heikkinen, H., & Morberg, Å. 2012. The induction phase as a critical transition for newly qualified teachers. In *Transitions and transformations in learning and education*. P. Tynjälä, M.-L. Stenström, & M. Saarnivaara, Eds.: 169-186. Dordrecht: Springer.
 57. Heikkinen, H., Aho, J., & Korhonen, H. 2015. *Ope ei saa oppia: Opettajankoulutuksen jatkomon kehittäminen*. Jyväskylä: Jyväskylän yliopisto, Koulutuksen tutkimuslaitos
 58. Lassila, E. T., Jokikokko, K., Uitto, M., & Estola, E. 2017. The challenges to discussing emotionally loaded stories in Finnish teacher education. *Eur. J. of Teacher Ed.*, **40**, 379–393.
 59. Heikkinen, H. L. (2017). Mentoring of newly qualified teachers in the educational sense. In *A Companion to Research in Teacher Education*. M. A. Peters, B. Cowie, & I. Menter, Eds.: 813-824. Springer: Singapore.
 60. Uitto, M., Kaunisto, S.-L., Syrjälä, L. & Estola, E. 2015. Silenced truths: relational and emotional dimensions of a beginning teacher's identity as part of the micropolitical context of school. *Scand. J. of Ed. Research*, **59**: 162–176.
 61. Aspfors, J., & Fransson, G. 2015. Research on mentor education for mentors of newly qualified teachers: A qualitative meta-synthesis. *Teaching and Teacher Ed.*, **48**: 75–86.
 62. Aspfors, J., & Fransson, G. 2015. Att kvalificera sig till mentor – perspektiv på kompetensbehov och utbildning av mentorer för nya lärare. *Psykologi i Kommunen*, **50**(2), 17–27.
 63. Jokinen, H., Markkanen, I., Teerikorpi, S., & Heikkinen, H. 2012. Mentorikoulutus. In *Osaaminen jakoon: Vertaisryhmämentorointi opetuslalla*. H. Heikkinen, H. Jokinen, I. Markkanen, & P. Tynjälä, Eds.:87-95. Jyväskylä: PS-Kustannus.
 64. Pasanen, H., & Alanko-Turunen, M. 2019. Vertaisuuden tunnustaminen esimiesorientaationa Verme-koulutus jaettua johtajuutta kehittämässä. *Aikuiskasvatus*, **39**(1). doi:<https://doi.org/10.33336/aik.80254>
 65. Syrjälä, L. & Estola, E 2012. Diversity of mentoring. *Peer-group mentoring for teacher development*. In H. Heikkinen, H. Jokinen, & P. Tynjälä, Eds.: 104–111. London: Routledge
 66. Nissilä, S.-P. 2015. Designing and testing an educational program for professional development in work places: Sharing expertise in teachers' peer group mentoring. In *Education – research – evaluation*, D. Hanesova, Ed.: 81–99. Banska Bystrica: Univerzita Mateja Bela.
 67. Erikson, E.H. 1982. *The Life Cycle Completed*. New York: Norton.
 68. Laes, Tenhunen & Hanhela 2012. Vertaisryhmämentorointi generatiivisuuden näkökulmasta. In *Osaaminen jakoon: Vertaisryhmämentorointi opetuslalla*. H. Heikkinen, H. Jokinen, I. Markkanen, & P. Tynjälä, Eds.:207-222. Jyväskylä: PS-Kustannus.

69. Ropes, D. 2013. Intergenerational learning in organizations. *Eur. J. of Training and Development*, **37**: 713-727.
70. Geeraerts, K., Tynjälä, P., & Heikkinen, H. 2018. Inter-generational learning of teachers: what and how do teachers learn from older and younger colleagues? *Eur. J. of Teacher Ed.*, **41**: 479-495.
71. Rajakaltio, H., & Syrjäläinen, E. 2012. Peer-group mentoring in the context of transforming local administration. In *Peer-group Mentoring for Teacher Development*, H. Heikkinen, H. Jokinen, & P. Tynjälä, Eds.: 78–88. London: Routledge
72. Johnson, P., & Alamaa, S. 2012. Mentoring as sustainable school development. In *Peer-group Mentoring for Teacher Development*. H. Heikkinen, H. Jokinen, & P. Tynjälä, Eds.: 52–59. London: Routledge.
73. Nissilä & Paaso 2012. Itsetuntemuksesta organisaation kehittämiseen. In *Osaaminen jakoon: Vertaisryhmämentorointi opetuslalla*. H. Heikkinen, H. Jokinen, I. Markkanen, & P. Tynjälä, Eds.: 189-206. Jyväskylä: PS-Kustannus.
74. Jokinen, H., Morberg, Å., Poom-Valickis, K. & Rohtma, V. 2008. Mentoring newly qualified teachers in Estonia. Finland and Sweden. In *Newly qualified teachers in Northern Europe. Comparative perspectives on promoting professional development*. G. Fransson & C. Gustavsson, Eds.: 76-106. Gävle: University of Gävle.
75. Fransson, G. 2014. A culture of trust or an ideology of distrust: A comparison of the impact of Finnish and Swedish educational cultures on mentoring approaches. *Uncovering the Hidden Cultural Dynamics in Mentoring: Uncovering the Complexities*. In F. Kochan, A. Kent, and A. Green, Eds.: 253-271. Charlotten NC: Information Age Press.
76. Aspfors, J., Fransson, G., & Heikkinen, H. 2012. Mentoring as dialogue, collaboration and/or assessment? In *Transitions and transformations in learning and education*. P. Tynjälä, M.-L. Stenström, & M. Saarnivaara, Eds.: 271–290. Dordrecht: Springer.
77. Pennanen, M., Bristol, L., Wilkinson, J., & Heikkinen, H. 2016. What is 'good' mentoring? Understanding mentoring practices of teacher induction through case studies of Finland and Australia. *Pedagogy, Culture & Society*, **24**, 27–53
78. Aspfors, J., Hansén, S.-E., Tynjälä, P., Heikkinen, H., et al. 2012. Lessons learnt from peer-group mentoring experiments. In *Peer-group Mentoring for Teacher Development*, H. Heikkinen, H. Jokinen, & P. Tynjälä Eds.: 131–143. London: Routledge.
79. Hargreaves, A., & Fullan, M. 2012. *Professional Capital: Transforming Teaching in Every School*. Teachers College Press.
80. Kemmis, S., & Heikkinen, H. 2012. Future perspectives: Peer-group mentoring and international practices for teacher development. In *Peer-group Mentoring for Teacher Development*, H. Heikkinen, H. Jokinen, & P. Tynjälä, Eds.: 144–170. London: Routledge.

Table 1. Summary of the findings of PGM studies (adapted from Ref. 78, p. 140)

Main themes	Individual/Group level	Community/ Organizational level	National level
Prerequisites of functional mentoring activities	<ul style="list-style-type: none"> • Social factors: open atmosphere, mutual trust • Methodological factors: rules, agreements 	<ul style="list-style-type: none"> • Administrative factors: organizational support • Physical factors: time and place convenient 	<ul style="list-style-type: none"> • Funding and agreements
Outcomes/benefits/ implications of PGM	<ul style="list-style-type: none"> • Time and space for reflecting and sharing experiences • Empowerment and increased self-confidence • Professional identity development • Conceptual change • Increased motivation and well-being 	<ul style="list-style-type: none"> • Mainly indirect effects: empowered teachers act as agents of change • More direct effects when teachers come from the same school and when the groups are multidisciplinary. • One possible method for teacher induction 	<ul style="list-style-type: none"> • National network for mentoring and teacher induction • Research-based practice
Challenges	<ul style="list-style-type: none"> • Group dynamics (e.g. dominant/withdrawing persons in group) • Time management and commitment 	<ul style="list-style-type: none"> • Recognition of peer learning as professional development 	<ul style="list-style-type: none"> • Lack of national agreement • Compensation for mentors • Allocation of working time for mentees

Appendix 1. Review data

Authors	Year	Title	Number of participants	Data	Methods
Ahokas, M.	2012	A multiprofessional mentoring group at a vocational school.	26 participants, 2 mentors and 24 mentees.	Thematic interviews,	Case study
Alanko-Turunen, M. & Pasanen, H.	2012	Verme ammatillisen opettajan tukena muutosten kentällä	22 mentors in vocational education	Participants' learning and research tasks	Thematic analysis
Aspfors, J., & Bondas, T.	2013	Caring about caring: Newly qualified teachers' experiences of their relationships within the school community.	88 newly qualified teachers	Online questionnaire, open ended questions, 88 respondents	Qualitative content analysis, inductive and explorative
Aspfors, J., & Eklund, G.	2017	Explicit and implicit perspectives on research-based teacher education – newly qualified teachers' experiences in Finland	10 newly qualified primary school teachers	Semi-structured interviews with	Qualitative content analysis
Aspfors, J., & Fransson, G.	2015	Att kvalificera sig till mentor – perspektiv på kompetensbehov och utbildning av mentorer för nya lärare	NA	Literature	Review
Aspfors, J., & Fransson, G.	2015	Research on mentor education for mentors of newly qualified teachers: A qualitative meta-synthesis.	NA	10 studies	Qualitative meta-synthesis
Aspfors, J., Bendtsen, M., & Hansén, S.-E.	2011	Nya lärare möter skola och klassrum.	2 teachers	Questionnaire / focus group	Narrative analysis
Aspfors, J., Bendtsen, M., Hansén, S.-E., & Sjöholm, K.	2011	Evolving views of the teaching profession: Voices from student teachers and newly qualified teachers.	76 teachers	Questionnaire and focus group interviews	Qualitative content analysis
Aspfors, J., Fransson, G.,	2012	Mentoring as dialogue, collaboration and/or assessment?	118 (questionnaire)	Interviews; questionnaire,	Content analysis

& Heikkinen, H.			+ 5 (interviews)	national policy documents	
Aspfors, J., Hansén, S.-E., Tynjälä, P., Heikkinen, H., & Jokinen, H.	2012	Lessons learnt from peer-group mentoring experiments.	NA	Literature	Review
Estola, E., Heikkinen, H., & Syrjälä, L.	2014	Narrative pedagogies for peer groups.	NA	Literature	Theoretical review of narrative identity work
Estola, E., Syrjälä, L., & Maunu, T.	2012	The first years as a teacher.	7 participants	Participatory observation, notes, writing assignments, essays	Inductive, thematical analysis
Fransson, G.	2014	A culture of trust or an ideology of distrust: A comparison of the impact of Finnish and Swedish educational cultures	NA	Literature, policy documents	Review and macro-level comparative analysis
Geeraerts, K., Tynjälä, P., & Heikkinen, H.	2018	Inter-generational learning of teachers: what and how do teachers learn from older and younger colleagues?	16 Belgian teachers, 11 Finnish teachers, altogether n=27	FI: written accounts, BE: interviews	Thematic analysis
Geeraerts, K., Tynjälä, P., Heikkinen, H., Markkanen, I., Pennanen, M., & Gijbels, D.	2015	Peer-group mentoring as a tool for teacher development.	69 general education, 47 vocational edu teachers, altogether n=116	Quantitative online survey	Quantitative methods: CFA + EFA, descriptive statistics, group comparison with t-test
Heikkinen, H.	2016	Bridging informal and formal learning in professional development.	NA	Philosophical literature	Review
Heikkinen, H.	2017	Mentoring of newly qualified teachers in the educational sense.	NA	Literature	Philosophical review
Heikkinen, H., Jokinen, H., & Tynjälä, P.	2012	Teacher education and development as lifelong and lifewide learning.	NA	Literature	Review

Heikkinen, H., Wilkinson, J., Aspfors, J., & Bristol, L.	2018	Understanding mentoring of new teachers: Communicative and strategic practices in Australia and Finland.	8 teachers	Audio recorded interviews in Australia and in Finland	Abductive content analysis
Hiltula, A., Isosomppi, L., Jokinen, H., & Oksakari, A.	2012	Individual and social meanings of mentoring.	NA	Literature	Review, based on a master thesis
Johnson, P., & Alamaa, S.	2012	Mentoring as sustainable school development.	NA	Literature	Review
Jokikokko, K., Uitto, M., Deketelaere, A., & Estola, E.	2017	A beginning teacher in emotionally intensive micropolitical situations.	1 teacher	3 semi-structured interviews	Narrative analysis, holistic-content approach
Jokinen, H., Heikkinen, H., & Morberg, Å.	2012	The induction phase as a critical transition for newly qualified teachers.	29 mentees, 18 mentors	Questionnaires, interviews, reflective journals	Thematic analysis
Kaunisto, S.-L., Estola, E., & Leiman, M.	2013	"I've Let Myself Get Tired" – one teacher's self-reflection process in a peer group.	11 teachers	Observations and transcripts of video recordings of 16 meetings, 70 pages in total.	Dialogical Sequence Analysis (DSA)
Kaunisto, S.-L., Estola, E., & Niemistö, R.	2012	The group as a context for peer-group mentoring.	NA	Literature	Conceptual analysis of Tuckman's group development model in relation to PGM
Kaunisto, S.-L., Uitto, M., Estola, E., & Syrjälä, L.	2009	Ohjattu vertaisryhmä haavoittuvuudesta kertomisen paikkana.	11 teachers	Case study of one mentoring group	Narrative analysis
Kemmis, S., & Heikkinen, H.	2012	Future perspectives: Peer-group mentoring and international practices for teacher development.	NA	Literature	Conceptual analysis: Application of the theory of ecologies of practices to mentoring

Kemmis, S., Heikkinen, H., Fransson, G., Aspfors, J., & Edwards- Groves, C.	2014	Mentoring of new teachers as a contested practice: Supervision, support and collaborative self-development	NA	3 empirical cases. Field notes, transcripts of interviews (including focus groups) and written, audio and video records of observations of mentoring sessions. Documents collected in each country: policy documents, reviews of national research literature, teachers' reflections and other texts.	Multiple case study approach
Kiviniemi, U., Heikkinen, H., Tynjälä, P., & Martin, A.	In review	Running a hybrid: Mingling in-service and pre-service teachers in peer-mentoring groups	8 teachers	88 pages of transcripts based on interviews	Thematic analysis
Korhonen, H., Heikkinen, H., Kiviniemi, U., & Tynjälä, P.	2017	Student teachers' experiences of participating in mixed peer mentoring groups of in-service and pre-service teachers in Finland.	19 student teachers	Written reflective reports	Phenomenographic analysis
Lahdenmaa, M., & Heikkinen, H.	2012	Experiences of peer-group mentoring in homogenous and heterogenous groups.	2 groups, 13 participants	Focus group interviews	Comparative qualitative analysis
Lassila, E. T., Jokikokko, K., Uitto, M., & Estola, E.	2017	The challenges to discussing emotionally loaded stories in Finnish teacher education.	10 participants	6 video-recorded sessions, diaries of 10 participants, 1 later written reflections	Narrative analysis
Mäki, P.	2012	Diverse landscapes of mentoring	8 school leaders, 5	Interviews	Content analysis

			school assistants		
Nissilä, S.-P.	2015	Designing and testing an educational program for professional development in work places: Sharing expertise in teachers' peer group mentoring.	10 mentors	Questionnaire, structured and open-ended questions, and free writing	Qualitative content analysis
Nissilä, S.-P.	2013	The vocational teacher's changing role and identity in changing contexts.	NA	5 studies	Conceptual analysis based on five empirical studies
Pasanen, H., & Alanko-Turunen, M.	2019	Vertaisuuden tunnustaminen esimiesorientaationa Verme-koulutus jaettua johtajuutta kehittämässä	13 participants	Observations, essays and material produced in mentor training by the participants	Critical close reading (Griselda Pollock)
Pennanen, M., Bristol, L., Wilkinson, J., & Heikkinen, H.	2016	What is 'good' mentoring? Understanding mentoring practices of teacher induction through case studies of Finland and Australia.	30 participants	5 focus group interviews (16 participants) and fictional stories from 14 mentors	Two order analysis, inductive and abductive approach
Pennanen, M., Heikkinen, H. & Tynjälä, P.	2018	Virtues of mentors and mentees in the Finnish model of teachers' peer-group mentoring.	30 participants	5 focus group interviews (16 participants) and fictional stories from 14 mentors	Philosophical-empirical inquiry, thematic content analysis and post-modernist, constructivist narrative approach
Rajakaltio, H., & Syrjäläinen, E.	2012	Peer-group mentoring in the context of transforming local administration.	6 mentors	Questionnaires and focus group interviews	Case study
Syrjälä, L., & Estola, E.	2012	Diversity of mentoring.	21 participants	Narratives	Plotted dialogues
Teerikorpi, S., & Heikkinen, H.	2012	Keys to success.	25 participants	Written fictional stories	Content analysis, narrative approach
Tynjälä, P., & Heikkinen, H.	2011	Beginning teachers' transition from pre-service education to working life: Theoretical	NA	Literature	Review

		perspectives and best practices.			
Uitto, M., Kaunisto, S-L., Syrjälä, L. & Estola, E.	2015	Silenced truths: relational and emotional dimensions of a beginning teacher's identity as part of the micropolitical context of school.	11 teachers	Transcribed data based on video-recordings of the group meetings	Narrative approach
Uitto, M., Kaunisto, S.-L., Kelchtermans, G., & Estola, E.	2016	Peer group as a meeting place: reconstructions of teachers' self-understanding and the presence of vulnerability.	11 teachers	Teachers' stories	Narrative analysis, Spector-Mersel model
Väljärvi, J., & Heikkinen, H.	2012	Peer-group mentoring and the culture of education in Finland.	NA	Literature	Review
Wittek, D., Ruohotie-Lyhty, M., & Heikkinen, H.	2017	Mentoring im Berufseinstieg von Lehrpersonen – ein bilateraler Vergleich zwischen Deutschland und Finnland	NA	Literature	Review



IV

ARTICULATING THE PRACTICE ARCHITECTURES OF COLLABORATIVE RESEARCH PRACTICE

by

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12. ARTICULATING THE PRACTICE ARCHITECTURES OF COLLABORATIVE RESEARCH PRACTICE

Matti Pennanen, Laurette Bristol, Jane Wilkinson, and Hannu L. T. Heikkinen

Abstract: This chapter explores a collaborative practice of comparative data analysis through the researching activities of four researchers from Australia and Finland. We interrogate the ontological and empirical reality we experienced while engaged in a practice of analysing narrative data on mentoring. In this chapter, we are not reporting on the outcomes of our analysis of mentoring practice; instead we focus on our collaborative engagement, articulating the practice architectures of our research practice. This collaborative research practice was pre-figured by: 1) philosophical traditions instituted through a theory of practice architectures; and 2) normalised practices of researching mentoring, narrative data analysis, and research collaborations. By examining these preconditions we are attempting to understand the multifaceted space of research collaboration and the practice architectures of our collaborative research practice.

The study shows that the three kinds of arrangements that comprise the practice architectures of research practice (that is, cultural-discursive, material-economic, and social-political arrangements) are foregrounded differently at different stages of research analysis. In the researchers' collaborative engagement, the material-economic arrangements were most visible and explicit in the beginning of the analysis (first order analysis). However, more of the cultural-discursive arrangements and social-political arrangements became apparent after further contemplation (second order analysis). Analysing the differing degrees of visibility of these three types of arrangements in our analysis is significant since they occur as an enmeshed ensemble in reality.

It is the norm that most research papers, books, and theses that examine reflective research focus on the range of relationships that evolve while in the process of doing research with others (e.g., participants, practitioners, and other researchers) and the ethical dilemmas that may emerge from this process. Whatever the rationale, reflecting on research is complex; it is a critical metacognitive exploration that is not easily defined. It leads to the creation of metaphors to “help explain, appreciate and create different meanings”, uncover the “effects of blind spots” (McClintock, Ison, & Armson, 2003, pp. 716-717), and make sense of research encounters. The literature on reflective practice indicates that much of the writing in the area tends to focus on the social, political, and emotive (ethical dilemmas) effects and affects of engaging in research with others (Hickson, 2011). This chapter, however, examines a rarely considered aspect of reflecting on research practice. We reflect, at a general level, on research actions and, at a particular level, on collaborative research as a practice in itself. In other words, our intentions are not oriented towards forging new identities, but towards exploring with fresh appreciation the practice conditions which prefigure our collaborative research practices. In so doing, we aim to make sense of how we *do* research in collaborative sites.

We explore the created and discovered (as already pre-existing) practice of data analysis through the researching and sensemaking (Weick, 1995) activities of four researchers from Australia and Finland. By ‘created and discovered’ we mean that we utilised research methods that already existed, but also combined and modified them to

serve our purposes, eventually leading to the creation and development of new researching methods. Our aim is to explicate the practice architectures of a research practice that emerged in a collaborative study. Making sense of what enables, sustains, and constrains an empirical exploration of a research topic requires a consideration of the arrangements in which researchers and researching mentoring practices are enmeshed.

Theories and research methodologies can be seen as practice architectures enabling and constraining a scholarly investigation. However, our experience shows that cultural-discursive, material-economic, and social-political arrangements are foregrounded differently at different stages of analysis. In the interrogation of the data in our respective studies, the material-economic arrangements and (to a lesser extent) the cultural-discursive arrangements appeared to be more explicit than the social-political arrangements. To reveal the enmeshed practice architectures as a whole, we needed to do further investigation to make the initially implicit social-political arrangements visible.

The exploration of collaborative practice is significant as the research literature suggests that the results and outcomes of collaborative research practices may be quite contradictory. On the one hand, team research is reported as promoting analytical richness and depth. On the other hand, there are suggestions that “fragmented interpretations” can occur in collaborative methods, leading to incoherent or inconsistent thoughts and theories¹ (Sumsion, 2014, p. 153). With this enquiry we explicate the practice architectures of collaborative research practice and illustrate how this practice is enabled and constrained in an effort to answer the demands of the traditions of research practices. The chapter is organised in three key movements which highlight stages in the development of our reflective process. First, we describe our collaborative research practice. Where it is typical to open the argument with a description of the epistemological framing, we start with our methodological assumptions and description of the particular research practice. Second, we illustrate the thinking that prefigures our actions as researchers. Third, we render visible our reflective narratives and then move between these narratives in order to make explicit the practice architectures which conditioned our collaborative research practices.

Collaboration Built Over Time and Within International Research Sites

Before outlining the nature of the collaborative research practices that form the basis of the inquiry, we briefly describe how we first came to work together and the research sites which prefigured these practices. Matti Pennanen started his academic working career in 2012 after graduation from the teacher education department at the University of Jyväskylä, Finland. He was accepted for doctoral studies in August 2013 in the University of Jyväskylä and Hannu Heikkinen was designated as Matti’s supervisor. Laurette Bristol is originally from Trinidad and Tobago and she completed her doctoral studies at the University of Sheffield, UK. She continued her postdoctoral career at Charles Sturt University, Wagga Wagga, Australia. Jane Wilkinson is an Australian scholar who was working at Charles Sturt University when Laurette moved to work for the same university. Hannu Heikkinen has made his career on action

¹ The phrase ‘fragmented interpretations’ refers to the attendant risks that may flow when a team of researchers from different backgrounds do not collaboratively examine the differing perspectives or theories they bring to a collaborative study. When the differing epistemological and ontological assumptions of researchers are not made explicit, this can lead to eclecticism and potentially incoherent and inconsistent theories and conclusions.

research and narrative research among other areas, while working at the University of Jyväskylä.

Hannu, Jane, and Laurette first met in 2010 at a Pedagogy, Education, and Praxis (PEP) international research network meeting in Australia. At the time of the research meeting in 2010, both Hannu and Laurette were being initiated into the research and learning practices of the researchers in the network. In this practice site of international research collaboration, Jane, Hannu, and Laurette realised that, despite the differences evident in their distinct cultural and national backgrounds – and to a lesser extent, their research interests – they shared commonalities through their core philosophy and researching practices, which were being made manifest during the week of research conversations. These evolved around an interest in social justice, the nature of in-service mentoring, and the means through which systems can be navigated to enhance teacher capacity and professional learning. These connections were strengthened as time passed via virtual meetings, cross-national collaborative projects, annual PEP international research meetings, and conference presentations.

At the local levels, collaborative synergy was supported through research projects between Laurette and Jane in New South Wales, Australia; where they undertook a study which explored the practice of school transformation in a rural context and the ways in which the constitutive practices of professional learning and leading in cross disciplinary teaching teams at the Secondary (High) school level were enhanced through peer-mentoring practices. For Hannu and Matti in Finland, collaboration was harnessed through research projects on mentoring and through the mentoring relationship between Hannu and Matti, in which Hannu fulfilled a system position as Matti's PhD supervisor.

In 2013, Jane and Laurette were visiting scholars in Jyväskylä and, during that visit, initiatives were taken to organise a research collaboration with the team of four researchers: Matti, Hannu, Jane, and Laurette. Eventually, the two collaborative projects being enacted in Australia and Finland came together through a month of research conversations between the team members in Australia in 2014. In this shared space, our first collaborative publication was realised: *What is "good" mentoring? Understanding mentoring practices of teacher induction through case studies of Finland and Australia* (Pennanen, Bristol, Wilkinson, & Heikkinen, 2015). The reflexive component of collaborative research (Wang, 2013), the collaborative projects that were fostered through partnerships (Godoy-Ruiz, Cole, Lenters, & McKenzie, 2015), and the boundaries that were blurred (Meerwald, 2013) through the processes and practices of the collaborative research experiences, form the basis of the inquiry in this chapter.

Depiction of the Research Practice



**Picture 1. “La condition humaine”
by René Magritte (1933):**

“In front of a window seen from inside a room, I placed a painting representing exactly that portion of the landscape covered by the painting. Thus, the tree in the picture hid the tree behind it, outside the room. For the spectator, it was both inside the room within the painting and outside in the real landscape. This is how we see the world. We see it outside of ourselves, and at the same time we only have a representation of it in ourselves.”

(Leatherbarrow & Mostafavi, 2005, p. 39)

Method of reflective narrative

We begin with a description of the method of explicating our research practice. Our aim was to produce as accurate a representation of our practice as possible, similar to the idea in Picture 1². The painting (in front of the window) represents the view from the window and tries to mimic the visual experience. However, the technique, the *point* of view, and the window prefigure and frame the visual experience. From another perspective, and with a different technique, the visual experience of the painting will be of a different kind. We aimed for an accurate representation (with reflective narratives) of our research practice with the given method, perspective, and frame (of practice architectures), and the understanding that it offered a view of reality within limitations. In the discussion that follows, we explain how we created our representation of our research practice using reflective narratives.

We used the question *what are the practice architectures of our collaborative research practice?* to generate our reflective narratives. This is similar to what is understood as autoethnography in research (du Preez, 2008). Our inquiry was a means of making evident the practice arrangements which constituted our practice of collaborative research. In other words, we produced a meta-analysis; we analysed our research practice when we investigated two cases of mentoring practices in Finland and Australia. For this current inquiry, we made explicit the *sayings, doings, and relatings* of our collaborative research practice. We, authors of this chapter, had multiple roles: we were the participants in the collaborative practice; we were the reflectors who produced the data for this chapter; and we are now explaining the method and results of the narratives. We gave ourselves the task of constructing individual critical narratives that described, from our own points of view, how we made sense of the collaborative research practice we engaged in during 2014 when we collaboratively analysed case study data collected in Australia and Finland. As such we created a “communicative space for personal narratives around a common theme” of *what we were doing as we made sense of the data together* (Cardiff, 2012, p. 608). ‘Making sense’ refers to a certain philosophy or an approach that we utilised in our practice to formulate a linguistic (written and spoken) and comprehensible description of our research practice.

² All pictures included in this chapter have been reprinted with permission.

Sensemaking is a process where “circumstances are turned into a situation that is comprehended explicitly in words” (Weick, Sutcliffe, & Obstfeld, 2005, p. 409). Sensemaking is not about finding the “correct” answer; it is about creating an emerging picture that becomes more comprehensible through data collection, action, experience and conversation (Ancona, 2005). The concept is well named as it literally means the making of sense (Weick, 1995), which also involves the interplay of action and reflection. People do not *just* perform and afterwards reflect on their action. Rather they start to interpret the world immediately as their actions unfold, and during the actions they are able to plan their upcoming moves according to interpretations to achieve the desirable outcome. In this instance, we needed to make data (reflective narratives) of our practice while producing a comprehensible description of the practice architectures. The description is not merely a post-action reflection as it involves the thinking involved during the research action.

Once generated, our narratives were subjected to collective scrutiny where we followed a line of reasoning similar to what we applied to the investigation of mentoring practices in our first empirical paper (Pennanen et al., 2015). Thus, for this current interrogation we engaged in two types of reasoning for our reflective narratives: inductive reasoning (first order analysis – seeing what was there; Ary, Jacobs, Sorensen, & Walker, 2013) and abductive reasoning (second order analysis – identifying what was missing; Josephson & Josephson, 1996). Interrogating our research narratives through these questions we itemised first, *what was there, the obvious* — the sense that we made of collaborative research. This highlighted the research actions that we understood collectively — the cultural-discursive and material-economic arrangements that prefigured our practice(s); for instance, how we spoke to each other and characterised ideas.

Second, we identified *what was not as clearly seen, the less obvious* — the unstated but very active dimensions of (for example) ethnicity, culture, gender, previous relationships, (such as members of an international research network and student-supervisor relationships), and also traditions of doing data analysis as individuals. These were among the social-political arrangements and the cultural-discursive arrangements that shaped how we worked together, what was said and not said, and what was done and not done; the compromises we made and negotiations we engaged in as we sought consensus for research actions. Before we identify these unstated dimensions, we need to point out what was obvious in our research practice.

Identifying the practice architectures of our research practice

According to the theory of practice architectures, ontologically speaking, practices are located in sites, which have their own peculiar practice landscapes and practice traditions. In these sites, people and objects are enmeshed in an interactive practice in activity-timespace, which is also part of a historical continuum (Kemmis et al., 2014). Figure 12.1 is a general modelling of the *obvious* elements of our collaborative research practice, which emerged from our reflective narratives. By depicting the elements, we are able to form a structured conception of the practice and also an outline of the arrangements of our research practice that were evident in our reflective narratives.

(place Figure 12.1 here)

There were five major categories which were obvious elements for our research practice in our reflective narratives: *researchers*, *theoretical frame*, *academic discipline*, *qualitative data*, and *methods of analysis*. These five categories are shown in the Figure 12.1, with lines leading from the centre to each category. The most obvious category in our reflections was “researchers”, of whom two were employed by the Finnish Institute for Educational Research, and initially (in November 2013) two were employed by the Research Institute for Professional Practice, Learning and Education (RIPPLE), Charles Sturt University. The important notion is that we engaged as individuals in the researching practice and the practice was partly shaped by our different personalities, backgrounds, experiences, expertise, and dispositions. As such, we (as participants) constituted the three kinds of arrangements: 1) the material-economic arrangements as we were (and are) human beings and work in the limitations of human capabilities; 2) cultural-discursive arrangements with our different nationalities and languages; and 3) social-political arrangements with our different ways of relating to each other.

The second category was *theory*, which leads to a theoretical frame of our research practice, that is, the theory of practice architectures. In our reflective narratives we mentioned or described theoretical aspects of *ecologies of practices*, *site ontologies*, *praxis*, *language games*, *activities*, and *practices*, which are all parts of the theory of practice architectures. These aspects were significant parts of the theoretical discussion of our research practice as we tried to understand how we individually perceived them and how these ideas were visible in our research topic.

The research topic defined the *academic discipline* (third category) of our research practice. Through the topic (mentoring practices of teacher induction), our practice was located in the field of educational research, more specifically in the subtheme of teacher education and precisely in the area of teacher induction. Theory and the academic discipline together prefigured the practice traditions; for instance, what has been done earlier in the research literature of teacher induction or how the theory of practice and practice architectures was previously applied for analytical purposes. Also these frames prescribed the terminology that was appropriate to utilise and how the concepts were defined. Thus theory and the academic discipline contributed to the practice architectures – at least in the dimensions of cultural-discursive arrangements (shaping how we talked about theory and research) – and social-political arrangements (shaping how we positioned ourselves and our work on this topic in relation to the academic community).

The fourth category represents *qualitative data*. The Finnish data consisted of focus group interviews and written narratives, and the Australian data consisted of individual interviews, focus group interviews, and observational field journals. To some extent, the data prefigured the *analysis methods*, which is the fifth category in Figure 12.1. In our reflections, the two orders of analysis were regarded as significant for processing our qualitative data to produce satisfying answers with respect to the data and the research questions. By ‘satisfying’, we mean that we were able to reveal the implicit elements of our research practice which did not occur in the first order of the analysis. Data sets and analysis method were also part of the material-economic arrangements as we physically processed our data. They were also part of the cultural-discursive arrangements as the data were collected in two languages (Finnish and English).

These categories represented the *obvious* elements of our researching practice found in our reflective narratives. The physical space (where we engaged in work) did not gain *significant* attention in our reflections, therefore the representation of our practice lacks the description of physical set-ups (although some focus was given to

physical settings). This was because of the practical arrangements, when Jane relocated to a different organisation before the team's meeting in Australia 2014 and thus she participated in the researching practice through virtual communication. What we were describing was the space contributed by joint discussions, intellectual work and material resources of research data, and the physical work of analysis. However, the practice was also constituted by something more, which we regarded as implicit in our first reaction and reflections, yet important and critical with respect to our collaborative practice. Therefore, we needed to make the *less obvious* visible through further analysis.

Prefiguring Conditions of our Research Practice



Picture 2. "La trahison des images" by René Magritte (1929):

"The famous pipe. How people reproached me for it! And yet, could you stuff my pipe? No, it's just a representation, is it not? So if I had written on my picture 'This is a pipe', I'd have been lying!"

(Magritte & Torczyner, 1977, p. 71)

First reactions (to something obvious) are usually quite naïve and shallow, which has been the case with the painting "La trahison des images". Magritte's painting of a pipe has agitated people to rethink the meaning of words and also people's prejudices. In this instance, Magritte is questioning people's understanding of *a pipe* (*ceci n'est pas une pipe*; in English, *this is not a pipe*). It is truly a matter of interpretation of what can be regarded as *a pipe* and Magritte refers to the object in the painting as just a representation which lacks the true dimensions of the actual artefact represented. With this image, we want to illustrate that our first reactions will not always grasp the true meaning of something experienced, and our initial thoughts might be coloured by our prejudices. By processing the first reactions and with further contemplation, we could achieve a more holistic conception than we originally had. Investigation of a representation would still lack some dimensions of the natural world and we need to understand this limitation in our conclusions. With this in mind, we next turn to a discussion of the prefiguring conditions of our practice and to some of the contradictions of collaborative research.

Nature of practice architectures for analytical investigation

To make explicit the practice architectures of our research practice, we need to understand the nature of the theoretical frame. For instance, it is easy to recognise that a research team composed of four researchers constituted this practice. The research team, as a collection of human entities, can be understood as part of the material-economic arrangements of the research practice. As we were trying to identify these material-economic arrangements of our collaborative research practice, we immediately entered the dimension of cultural-discursive arrangements. Without language we could not point out or describe the objects which composed the realm of the material-economic dimension. This type of symbiosis of objects and language is one example of the prefiguring nature of practice architectures. In addition to its descriptive nature, language also exposed the interpretive dimension of understanding and recognising (identifying) objects or actions within a particular research tradition (discipline). For example, our analytical approach can be described with some degree of accuracy, but to

recognise it as fully in line with previously established analytical approaches is more complicated.

To describe our activities, we could use words such as applied thematic analysis (e.g., Guest, MacQueen, & Namey, 2011), autoethnography (Jones, 2005), bricolage in qualitative research (e.g., Denzin & Lincoln, 2005), collaborative interpretation (e.g., Lund & Baker, 1999), comparative analysis (Ragin, 1989), critical (action) research (Carr & Kemmis, 1986), grounded theory (Glaser & Strauss, 1967), philosophical empirical inquiry (Kemmis et al., 2014), or ‘zooming in’ and ‘zooming out’ in practice studies (e.g., Nicolini, 2012). These methodological constructs would be valid portrayals of our process (to some extent), but highlighting different aspects of our researching activities enabled and constrained different kinds of meanings and understandings. None of these words or set of words alone could explain our process fully, yet all of them elucidate something essential for our analysis. As Ludwig Wittgenstein argued in his *Philosophical Investigations* (2001/1953), words and concepts can only be understood in relation to one another. Language is a fluid structure that is intimately bound up with our everyday practices and forms of life. From this point of view, sensemaking is a matter of using words within ‘language games’ that we play in the course of everyday life. In most cases, “the meaning of a word is its use in the language”, Wittgenstein (2001/1953, p. 20) claimed. In other words, the meaning is not what you say, but the way that you say it, and the context in which you say it; it is how you play the language games together with the other players of the game and thus construe the meanings through discussion and social interaction. This also applies to the processes of sensemaking.

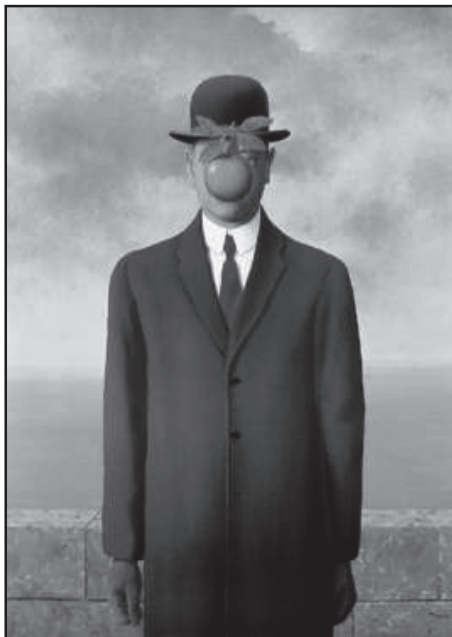
Wording becomes significant when producing a representation of the practice; understandings of the representation will depend on what words we are using. Words also prefigure the understandings and perceptions of an audience in terms of what the researchers are able to discover and identify from the practice (or reality). In research practice, researchers are working as interpreters of experienced reality and they describe the phenomena to an audience with tools and methods that cannot transfer the experience of reality as it is. By using words, researchers are forming a limited interpretation or representation to describe the experience to an audience. Already the form of the interpretation shapes the understanding of how the reality is experienced and how it can be perceived. Individual members of an audience do not form the exact same perception as other members of an audience, because all the members have different kinds of personal experiences, capabilities, and knowledge. These personal attributes affect how individuals perceive the given information as representations of experiences about reality. These differing perceptions are problematic in academic environments, since we should be able to form common terms and unified understandings of reality.

To have continuity and coherence in the usage of words in a specific context, these words need to have the recognition (acknowledgement) and agreement of the research community or academic discipline to be utilised as terms. These cultural-discursive arrangements also become the social-political arrangements when forming a mutual agreement on the suitable description or interpretation of a practice and the actions of practice among the persons involved in the practice and the larger community of researchers. These social-political arrangements of the practice are constantly under negotiation. The participants of the practice form their language to identify, describe, interpret, and recognise the unfolding activity. During the different stages of the process, the practice is explicated in different ways. Our preconceptions of the practice will evolve during the engagement in the practice and retrospectively we might see the

practice conducted differently. Participants have their individual understanding, and how the understanding is perceived by other participants and combined to reach commonly agreed thinking is prefigured by the power relations between the participants in this practice.

Power relations are particularly important from the perspective of research collaboration. Sumsion (2014) has summarised the research literature for collaborative practices of team research over the past 40 years. Based on the findings of her review, team research is widely adopted in the field of social sciences, yet it is still quite unclear how collaborative practices enable and constrain scholarly enquiries. Most definitely, researching activities benefit from having multiple persons concentrating their effort on the same subject, but equally, difficulties may arise due to differences between team members in terms of opinions, personalities, and power relationships (Sumsion, 2014). However, Sumsion asks for a shift of focus from internal politics of team research to broader geopolitical-economic contexts, which she points out as an unfilled gap in the literature on team research (Sumsion, 2014). Sumsion's review leads us to focus on the unstated dimensions of researchers' collaborative practice along with the obvious and already discovered arrangements, and encourages us to investigate our collaborative research practice in relation to broader themes focused on power relations.

Explicating the Implicit and Hidden



Picture 3. “Le fils de l’homme” by René Magritte (1964):

“At least it hides the face partly well, so you have the apparent face, the apple, hiding the visible but hidden, the face of the person. It's something that happens constantly. Everything we see hides another thing, we always want to see what is hidden by what we see. There is an interest in that which is hidden and which the visible does not show us. This interest can take the form of a quite intense feeling, a sort of conflict, one might say, between the visible that is hidden and the visible that is present.”
(Magritte & Torczyner, 1977, p. 172)

The painting “Le fils de l’homme” is an accurate metaphor for visibility. What we are able to see is easily recognisable, but we might only guess what is hidden by the visible. Investigating something that is not directly displayed is difficult in terms of research. Such investigation is always influenced by the interpretations of the researcher. However, in terms of the method of autoethnography, we were able to use our personal experience as data to investigate also the power relations of our collaborative practice, which were initially implicit. The following excerpt from Matti's reflective narrative provides a sense of concern about what was visible to us as researchers, and illustrates the kind of information that was generated during the analysis of mentoring practices:

After the first phase, individual analyses were collated together and this collated material formed an outline of the practice architectures of mentoring practices.... We felt dissatisfaction, because the analyses produced a quite narrow and tilted group of responses for our theoretical frame... Data suggested or gave hints of something more, which was embedded in the responses but was not explicit after the first analysis.

Four researchers (a group, which represented three different nationalities) collecting data from two different practice sites making sense of the collaborative practice (that emerged) depended not only on our apprehension of the cultural-discursive and material-economic arrangements, but the collaborative research practice was critically shaped by the social-political arrangements within the site of practice. These were less accessible and only became apparent in the second order of analysis when we began to ask what was not there. As Jane suggests in her self-reflection:

... issues of power and power asymmetries in practices are frequently hidden or invisible to the naked eye. They are often misread as 'natural' or 'taken-for-granted' relations between people, such as the patriarchal relationship that privileges behaviour that is read as 'masculine' over behaviour that is read as 'feminine'...

During the collaborative engagement, our focus was not on the social-political arrangements as much as it was on the material-economic arrangements (research data and physical work) and cultural-discursive arrangements (theory and methodology). In our collaborative practice, the social-political arrangements were a silent component, yet just as important as the two other kinds of arrangements. In fact, meanings of power relations can be hidden in words and relations between people, and still power relations influence the work or the *project* (the aim of the practice). To understand how power relations shape our work, we needed to make ourselves aware of the underlying meanings.

In our collaboration, we discussed the meanings of key words, since we had multiple nationalities represented and we needed to translate or explain words from Finnish to English or vice versa. However, the native English speakers were more familiar with the culture and the context where English is a language of the majority, and they could understand these silent meanings of power in words. This formed a power asymmetry between participants affecting communication and argumentation. Besides language abilities, there were formal relationships which affected the research collaboration. In an academic environment, the hierarchy can be found in formal titles and positions. In this instance, the article on the research project of mentoring practices was planned as a part of Matti's doctoral dissertation, which set some requirements for the work, for example, Matti being designated corresponding author of the publication. While Matti was a beginning researcher and had the leading role for the publication, the group was compelled to negotiate this level of involvement; ensuring that Matti would have sufficient space in writing and yet still scaffold his growth as a beginning researcher. Supporting Matti's academic growth was a particular responsibility for Hannu as he was the main supervisor of Matti's doctoral dissertation. More broadly, this process of negotiation relates to the "rite of passage" of a doctoral student who is trying to achieve the formal recognition and membership of a research community.

A concrete example of this kind of negotiating was when a difference of opinions occurred. If Matti as a doctoral student was solely relying on his own vision of how to proceed, would this demonstrate the independence of a beginning researcher or the idiocy of opposing three experienced researchers? Or does Matti as a doctoral student perceive his supervisor's comments as the thoughts of a superior or the thoughts

of a co-worker? Even though the answers to these questions might be inconclusive, the questions capture the hidden tensions for an individual doctoral student during the research project. Most often these situations were solved constructively and dialogically. On reflection, our project was shaped by each individuals' expertise, and this only became apparent when we traced the publication history, research interests and commitment to previous research projects of each member of the team. Along with cultural and formal relations, there was a recognisable bond of academic competence between the researchers, which shaped how the members of the research team related to each other.

As we reflected on this emerging practice of collaborative research, we asked again, in relation to our narrating of the practice, 'what was missing?'; 'what were the deeply embedded arrangements that were shaping the ways in which we navigated a shared analytical practice?' Laurette captures the missing in the following way:

In the collaborative data analysis space, planning what we did and when we did it, how we spoke and when we spoke it, influenced the social and political understandings of us as researchers in a working team; and exposed the social-political arrangements and traditions implicit in the data being analysed. Thus, as we attempted to map how we were making sense of what was being seen in the data we collected and in the stories of data collection, we slowly and simultaneously arrived at the inescapable. That is, that our discrete discernment of the social-political arrangements of mentoring (the subject of our collective inquiry) was intimately connected to our conscious apprehension of the social-political arrangements which were conditioning our doings and sayings as researchers investigating the thing that we ourselves were experiencing (mentoring, but for research publication).

Here the personal and the social are intertwined and not easily severed by the simplification of the explicit. This difficulty is present with team research as Sumsion's (2014) literature review reveals. Collaborative research practice is a practice of contradictions; Sumsion's review summarises benefits of collaborative practices that produce, for example, analytical richness and rigour, yet also points to examples that lead to fragmented interpretations, creating illusions of greater understanding. Our reflexive method was dialogical and constructivist and it was difficult to say whose effort or which ideas were neglected or processed. If a personal opinion was expressed, then it was elaborated by others; either overruled, reconstructed, or supplemented. The personal had become social. What can be said about our practice is that it was not only enabled and constrained by the micro-politics of our team, but it was enabled and constrained by the relations to and within the wider theoretical frame (the theory of practice architectures); the methodological approaches we adopted (qualitative analysis and inductive and abductive reasoning); and also 'the industry of research publishing', which means that there is a high pressure for academics to produce many publications, especially in international journals. How did we realise this? It was the moment when we moved closer to the discovery of the "unknown landscapes", or as Hannu remembers it:

I also remember feelings of dissatisfaction after the content analysis. Then we started to think what was still missing. What is somewhere there beyond the practices, which we did not see? We had to go somewhere beyond the actual data and ask each other and ourselves what was missing. Then we started a discussion on another level. I think we actually created new data simultaneously when we studied the outcomes of the first order analysis. This data was our discussions as we strove towards something unknown. I think that

was the most important step: to start the journey together to some unknown landscapes, so as to find the hidden and not-spoken structures or constraints which prefigure the different practices of mentoring in Finland and in Australia.

In this chapter, we have drawn on the ‘created and discovered data’ that we generated through our collaborative research practices (in our discussions and reflection in action and after action). What then is to be said about the practice architectures of a collaborative research practice?

Conclusions

Some practice architectures of our collaborative practice were more obvious to us than others in the first order of analysis (illustrated in Figure 12.2). Social-political arrangements were the least obvious, even though they were critical components of the practice architectures, as were the other two kinds of arrangement. The distinctiveness of the arrangements was also a difficulty for the analysis; there are named three kinds of arrangements in the theory of practice architectures and for analytic purposes we needed to make a judgement of what elements belonged in what category. How to recognise different elements as of one kind of arrangement or another (according to the theory and in reality) when they occur in an intertwined and enmeshed ensemble is an issue that every researcher (using this theoretical frame) needs to evaluate and solve in respect of their study.

(place Figure 12.2 here)

On the basis of our autoethnographic investigation, we see that theories (such as theories of practice and theories of other phenomena which we encounter in our lives) and research methodologies are practice architectures themselves. The use of certain theories and research methodologies prefigures what is possible or desirable in research. This includes

- (1) how to speak and write; how to conceptualise happenings, actions and activities, or power and solidarity relations that take place in social reality, for example, in education (cultural-discursive arrangements);
- (2) what and how to do, and how to act and behave; what material operations are followed in collecting data or analysing it (material-economic arrangements); and
- (3) whose opinions, views, or previous work, either within the research group or outside of it, should be taken into account; whose theories or methods we want to use; or contrariwise, whose ideas we just skip or neglect, who are the ones with whom we feel some sense of solidarity, and what are the ‘academic tribes’ (cf. Becher & Trowler, 2001) we want to join and be initiated into through initiation rituals such as public defence of a doctoral thesis (social-political arrangements).

All these practice architectures of research seem to have much in common with what Thomas S. Kuhn (2012/1962) calls ‘research paradigms’. The outcomes of collaborative research are produced with action and decisions; and also in some instances, just coincidentally.

References

- Ancona, D. (2005). Sensemaking: Framing and acting in the unknown. In S. A. Snook, N. Nohria, & K. Rakesh (Eds.), *The handbook for teaching leadership: Knowing, doing and being* (pp. 3-21). Thousand Oaks, CA: Sage.
- Ary, D., Jacobs, L., Sorensen, C., & Walker, D. (2013). *Introduction to research in education*. Belmont, CA: Cengage Learning.
- Becher, T., & Trowler, R. T. (2001). *Academic tribes and territories: Intellectual enquiry and the cultures of disciplines*. Buckingham, UK: Open University Press.
- Cardiff, S. (2012). Critical and creative reflective inquiry: Surfacing narratives to enable learning and inform action. *Educational Action Research*, 20(4), 605-622. doi:[10.1080/09650792.2012.727653](https://doi.org/10.1080/09650792.2012.727653)
- Carr, W., & Kemmis, S., (1986). *Becoming critical: Education, knowledge and action research*. Brighton, UK: Falmer Press.
- Denzin, N. K., & Lincoln, Y. S. (Eds.). (2005). *The SAGE handbook of qualitative research* (4th ed.). Thousand Oaks, CA: Sage.
- du Preez, J. (2008). Locating the researcher in the research: Personal narrative and reflective practice. *Reflective Practice: International and Multidisciplinary Perspectives*, 9(4), 509-519.
- Godoy-Ruiz, P., Cole, D. C., Lenters, L., & McKenzie, K. (2015). Developing collaborative approaches to international research: Perspectives of new global health researchers. *Global Public Health: An International Journal for Research, Policy and Practice*. doi: [10.1080/17441692.2014.999814](https://doi.org/10.1080/17441692.2014.999814)
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine.
- Guest, G., MacQueen, K. M., & Namey, E. E. (2011). *Applied thematic analysis*. Thousand Oaks, CA: Sage.
- Hickson, H. (2011). Critical reflection: Reflecting on learning to be reflective. *Reflective Practice: International and Multidisciplinary Perspectives*, 12(6), 829-839. doi:[10.1080/14623943.2011.616687](https://doi.org/10.1080/14623943.2011.616687)
- Jones, S. H. (2005). Autoethnography: Making the personal political. In N. Denzin & Y. Lincoln (Eds.). *The SAGE handbook of qualitative research* (pp. 763-792). Thousand Oaks, CA: Sage.
- Josephson, J. R., & Josephson, S. G. (1996). *Abductive inference: Computation, philosophy, technology*. New York, NY: Cambridge University Press.
- Kemmis, S., Wilkinson, J., Edwards-Groves, C., Hardy, I., Grootenboer, P., & Bristol, L. (2014). *Changing practices, changing education*. Singapore: Springer.
- Kuhn, T. S. (2012) [1962]. *The structure of scientific revolutions* (50th Anniversary ed.). Chicago, IL: University of Chicago Press.
- Leatherbarrow, D., & Mostafavi, M. (2005). *Surface architecture*. Cambridge, MA: MIT press.
- Lund, K., & Baker, M. (1999). Teachers' collaborative interpretations of students' computer-mediated collaborative problem-solving interactions. In S. Lajoie & M. Vivet (Eds.) *AIED'99: 9th International Conference on Artificial Intelligence in Education* (pp. 147-154). Le Mans, France: IOS Press.
- McClintock, D., Ison, R., & Armson, R. (2003). Metaphors for reflecting on research practice: Researching with people. *Journal of Environmental Planning and Management*, 46(5), 715-731. doi:[10.1080/0964056032000138454](https://doi.org/10.1080/0964056032000138454)
- Magritte, R. (1929). *La trahison des images*. [Oil on canvas]. Los Angeles, CA: Los Angeles County Museum of Art.
- Magritte, R. (1933). *La condition humaine*. [Oil on canvas]. New York, NY: National Gallery of Art.
- Magritte, R. (1964). *Le fils de l'homme*. [Oil on canvas]. Private collection.
- Magritte, R., & Torczyner, H. (1977). *Magritte, ideas and images*. New York, NY: H.N. Abrams.

- Meerwald, A. M. L. (2013). Researcher | researched: Repositioning research paradigms. *Higher Education Research & Development*, 32(1), 43-55. doi:10.1080/07294360.2012.750279
- Nicolini, D. (2012). *Practice theory, work, and organization: An introduction*. Oxford, UK: Oxford University Press.
- Pennanen, M., Bristol, L., Wilkinson, J., & Heikkinen, H. (2015). What is “good” mentoring? Understanding mentoring practices of teacher induction through case studies of Finland and Australia. *Pedagogy, Culture and Society*. doi:10.1080/14681366.2015.1083045
- Ragin, C. (1989). *The comparative method: Moving beyond qualitative and quantitative strategies*. Berkeley, CA: University of California Press.
- Sumsion, J. (2014). Opening up possibilities through team research: An investigation of infants’ lives in early childhood education settings. *Qualitative Research* 14(2), 149-165.
- Wang, X. (2013). The construction of researcher–researched relationships in school ethnography: Doing research, participating in the field and reflecting on ethical dilemmas. *International Journal of Qualitative Studies in Education*, 26(7), 763-779. doi:10.1080/09518398.2012.666287
- Weick, K. E. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sage.
- Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking. *Organization Science*, 16(4), 409-421. doi:10.1287/orsc.1050.0133
- Wittgenstein, L. (2001) [1953]. *Philosophical investigations*. Oxford, UK: Blackwell.

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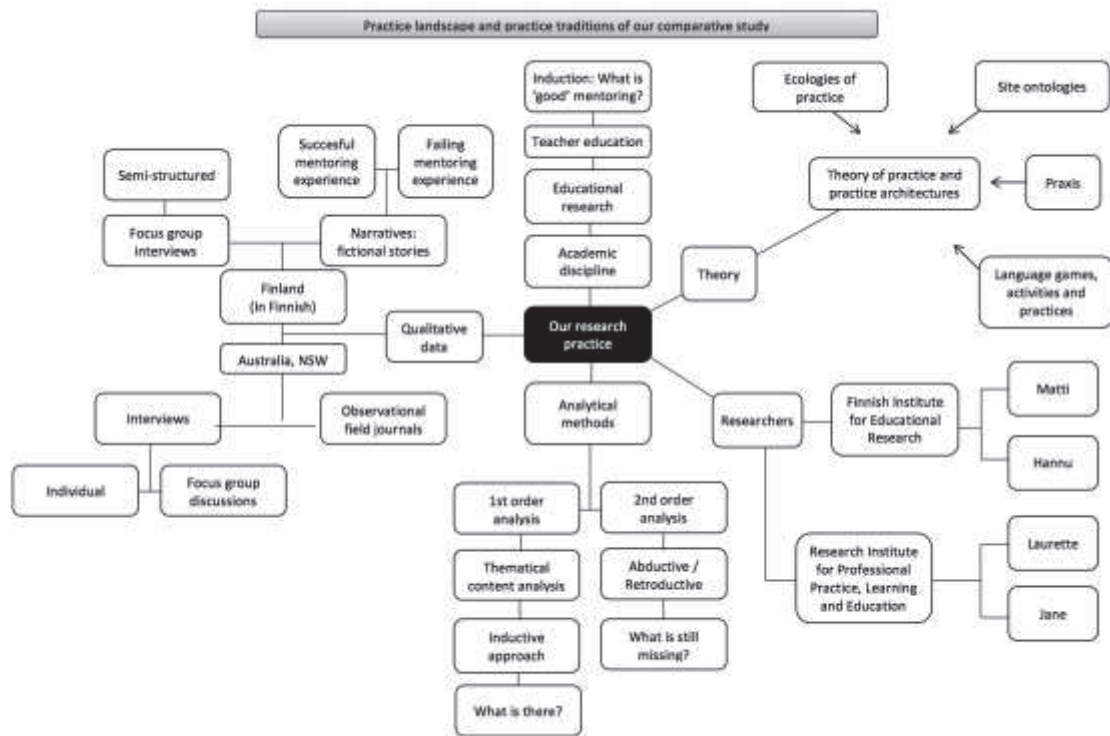


Figure 12.1. Mind map of the practice landscape and practice traditions.

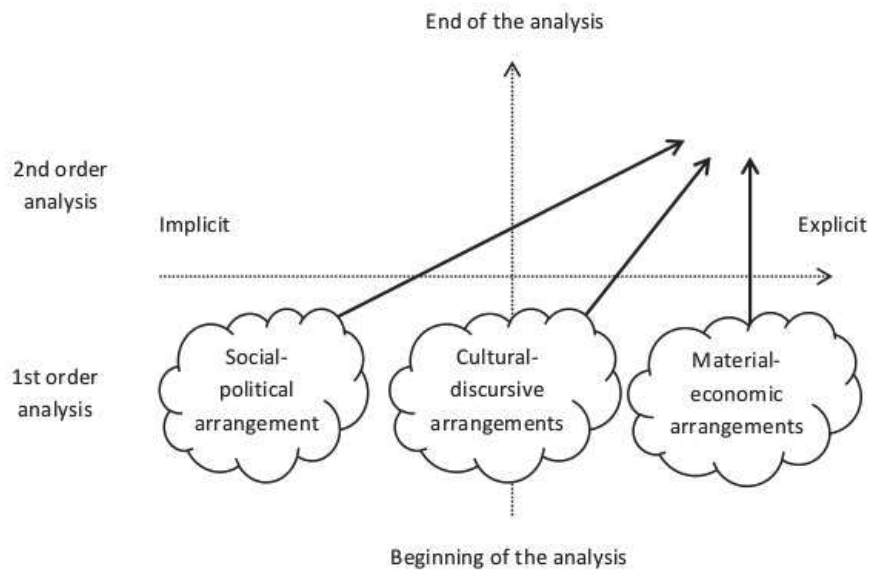


Figure 12.2. Two orders of the analysis. From Pennanen, Bristol, Wilkinson, and Heikkinen (2015, p. 36). Reprinted with permission.