



Changes in an Early Childhood Education and Care Teacher's Practical Theory of Language Pedagogy as a Nexus: The Interplay of Factors Affecting the Change

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Abstract

This case study focuses on an expert early childhood education and care (ECEC) teacher's practical theory of language pedagogy when implementing bilingual pedagogy (Finnish–Swedish) in a linguistically heterogeneous group of children aged 3–5 years. Practical theory refers to teachers' views of good teaching that guide their practices. Applying a mediated discourse analysis approach (nexus analysis), we examine the interplay of factors that promote and challenge changes in the practical theory of language pedagogy in ECEC. The discourses show that the changes are related to Swedish use (a new language for the children) and the use of the children's home languages. Several personal, interactional, and contextual factors circulate in the expert teacher's discourses, affecting the changes in her practical theory. Personal factors include reflection, beliefs, and experiences. Feedback from parents and children represents interactional factors, whereas contextual factors cover concepts such as participation and language-enriched teaching. This study highlights the significance of the multiple interrelated factors that are present when an expert teacher's practical theory of language pedagogy changes, which needs to be reflected upon both in the practice of ECEC and in teacher training.

Keywords: *bilingual education; early childhood education and care; nexus analysis; practical theory*

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1. Introduction

This study examines the interplay of factors affecting the changes in practical theory of language pedagogy of one expert teacher in early childhood education and care (ECEC). In educational contexts, practical theory refers to teachers' visions of good teaching (Maaranen et al., 2016), which is valuable for their pedagogical practice. Teachers' work is based on their practical theory, which guides their pedagogical choices in teaching (Maaranen & Stenberg, 2017). Hence, the practical theory and changes involved are central in understanding how teaching practices are formed. However, little is known about the changes in experienced teachers' practical theories over time or about the interplay of factors affecting the changes. Until now, such factors and changes have mainly been studied with student teachers.

This study explores the practical theory of language pedagogy of one expert teacher who implemented bilingual pedagogy in a linguistically diverse group in ECEC in Finland. Bilingual pedagogy refers to a teacher using two languages in teaching, which in the present study were Finnish (a national majority language) and Swedish (a national minority language). Multilingual children with home languages other than the languages of instruction in bilingual ECEC are welcomed into many bilingual education programmes in Finland (Peltoniemi et al., 2018). The Convention of the Rights of the Child (1989) states that multilingual children have the right to use their home languages and that education should promote respect towards these languages. In addition, the ECEC curriculum in Finland (EDUFI, 2019) emphasises children's right to their own language, respecting diversity and being aware of the language's role in the child's identity and interaction. However, research on how home languages, other than the languages of the bilingual instruction, are accounted for in ECEC classrooms is scarce in Finland as well as internationally (for exceptions, see Alstad & Tkachenko, 2018; Sopanen, 2019; Taylor, 2009; Taylor, 2015). This study aims to examine the factors that affect changes in the practical theory of language pedagogy of an expert ECEC teacher when working with a group of children with diverse home languages.

Previous research has focused on the teacher in question. Palviainen and Mård-Miettinen (2015) focused on teacher discourses that emerged while developing a bilingual pedagogy (in Finnish and Swedish) with a group of children from a Finnish-speaking background. Palojärvi et al. (2021) studied the same teacher's practical theory from the viewpoint of its content and structure. However—and in contrast to these previous studies—the current study focuses on how her practical theory has changed over time and what factors have contributed to these changes. Studying such changes is important as they predict changes in actual practices. ECEC is usually the first contact young children have with language education, and to the best of our knowledge, no previous study has focused on the changes in practical theory of language pedagogy in ECEC. This study aims

to address this gap and provide insights into why and how language pedagogy changes. In bilingual and multilingual contexts, the practical theory of language pedagogy is particularly important: the planning and implementation of language use should support children's learning and understanding, their agency, and promote the equality of languages. Furthermore, understanding the teacher's thoughts around her use of languages and identifying the interplay of factors that contribute to possible changes in her practical theory can have practical implications for the field and development of the theories around practical theory.

The current study thus examines the interplay of factors affecting the changes in an expert ECEC teacher's practical theory of language pedagogy over time after starting to work in a linguistically heterogeneous group. The research question guiding the analysis concerns what has promoted and challenged the changes in this ECEC teacher's practical theory of language pedagogy. The focus is on the teacher's discourses about her practices rather than the practices themselves. As an analytical tool, and to determine the relevant factors in her practical theory and their interaction, we applied nexus analysis (Scollon & Scollon, 2004).

1.1. Development of practical theory

Various definitions of practical theory are available. In some cases, practical theory is used as a synonym for pedagogical beliefs (Maaranen & Stenberg, 2017; Sternberg & Maaranen, 2020), practical knowledge (Buitink, 2009), or teacher cognition (Pitkäniemi, 2010). However, in this study, practical theory is seen from a wider perspective, including pedagogical beliefs, practical knowledge, and cognition, which are interconnected. Thus, in this study, practical theory is understood as the teacher's view of good teaching that is built on their experiences, beliefs, conceptions, values (Maaranen et al., 2016), and knowledge (Pitkäniemi, 2010). Many studies have focused on teachers' general practical theory (e.g., Buitink, 2009; Maaranen & Stenberg, 2017), whereas this study focuses on sparsely studied practical theory of language pedagogy.

Practical theory is dynamic in nature (Kettle & Sellars, 1996). In previous research literature, the development of practical theory has been approached from different viewpoints, which can be categorised as personal, interactional, and contextual dimensions. *Personal* comprise teacher's practical experiences, reflections (Mukeredzi & Nyachowe, 2018), reflective writing (Kettle & Sellars, 1996; Körkkö et al., 2016), childhood experiences (Levin & He, 2008; Pitkäniemi, 2017), and self-efficacy and emotions (Pitkäniemi, 2017). *Interactional* factors include observing colleagues and discussing with them, interaction in pre- and in-service trainings (Mukeredzi & Nyachowe, 2018; Pitkäniemi, 2010), and dialogues with supervisors and peers (Kettle & Sellars, 1996; Körkkö et al., 2016). Moreover, hearing children's perspectives strengthen the teacher's practical theory and help them make implicit practical theories more explicit (Niemi et al., 2015). *Contextual* factors, such

as theoretical underpinnings (Pitkäniemi, 2010), reading (Mukeredzi & Nyachowe, 2018), and practicum periods (Kettle & Sellars, 1996; Körkkö et al., 2016) also affect the development of practical theories. Previous research has mainly focused on the development of the contents of practical theories, rather than the factors affecting their development. The factors that affect the development of practical theory have only been briefly mentioned in the literature; hence, more detailed information is needed to enhance the understanding of these factors. Furthermore, we lack knowledge of how personal, interactional, and contextual factors are intertwined.

Research addressing the development of practical theory has mainly focused on the context of teacher training for student teachers and the perspectives of education programs and practicum periods (Buitink, 2009; Kettle & Sellars, 1996; Körkkö et al., 2016; Levin & He, 2008). In these studies, the student teachers' practical theories were shown to develop to focus on children's needs and teachers' learning concerns (Buitink, 2009; Kettle & Sellars, 1996; Körkkö et al., 2016; Mukeredzi & Nyachowe, 2018). Practicum periods or educational programs were also identified to help build up practical theories and make them more complex (Kettle & Sellars, 1996), well-developed (Buitink, 2009; Mukeredzi & Nyachowe, 2018), or broader and deeper (Körkkö et al., 2016). One of the few studies conducted on professional teachers' practical theory is our earlier study (Palojärvi et al., 2021) on an expert teacher's practical theory of language pedagogy when working with multilingual children. The study showed that the teacher's practical theory comprised one core value and several aims and principles. The core value emphasised the equality of languages, with the aims of mutual learning, enriching activities with languages, supporting language identities, and enhancing awareness of languages. The principles were pedagogical tact (i.e., being sensitive to the children and situation), whole-day pedagogy (i.e., seeing the whole ECEC day as important for learning), and the use of the language expertise of families. The research also showed that the aims, principles, and core values were closely intertwined (Palojärvi et al., 2021).

Since previous studies have mainly focused on student teachers, knowledge about the changes in professional teachers' practical theories is lacking. As unfinishedness is typical for humans (Freire, 1998), also professional teachers have a need for learning and growing (Freire et al., 2005), and when they learn new things, their practical theories can change. It is valuable to gain a further understanding of these processes.

1.2. Bilingual education in ECEC

Due to globalisation, internationalisation, and immigration, skills in communicating in more than one language are gaining importance (García, 2009). Bilingual education in ECEC provides a good opportunity to learn these skills early on. However, it remains under-researched (Palviainen et al., 2016) and has only recently started attracting wider attention (e.g., Anatoli, 2024; Otto & Cortina-Pérez, 2023; Schwartz, 2018).

Most bilingual education programmes presented in the literature emphasise that two languages are used for instruction (García, 2009). Furthermore, the children in these programmes tend to be presented as a homogenous group and as first or second language speakers of these languages (Creese & Blackledge, 2010; Palviainen & Mård-Miettinen, 2015; Schwartz & Asli, 2013). However, due to the rapidly growing number of multilingual children entering ECEC units, the child groups in them have become increasingly linguistically and culturally diverse. Thus, all teachers in ECEC, including those working in bilingual education, need to develop their practical theory of language pedagogy and, through that, their practices to account for children's multilingual resources and to enhance inclusion and participation (Weber, 2014).

The context of the current study is Finland—which is a bilingual country by Constitution (1917/2000), with Finnish and Swedish as its official languages. Finland has parallel monolingual Finnish- and Swedish-medium education systems and, within them, various bilingual education programmes in different languages, mainly in the two national languages and English (Palviainen et al., 2016; Peltoniemi et al., 2018). In Finland, ECEC is provided for children under school age (< 7 years) and guided by the National Core Curriculum for ECEC. The ECEC curriculum that was followed at the time of data collection was from 2018 (EDUFI, 2019), which placed a higher emphasis on cultural diversity and language awareness and approached pedagogy from a more holistic perspective than the earlier ECEC curriculum (Sopanen, 2019). Furthermore, it included separate sections on bilingual education and described both large-scale bilingual ECEC (e.g., early total immersion programmes) and small-scale bilingual education (e.g., language-enriched ECEC) (EDUFI, 2019). In small-scale, language-enriched ECEC, which is the focus of this study, children are exposed to a new language less than 25% of the time (EDUFI, 2019).

2. Materials and methods

2.1. The context and the participant

This qualitative case study was conducted in a town in Finland where Finnish is the official and dominant language. The participant was an ECEC teacher who implemented language-enriched bilingual education (in Finnish and Swedish), called bilingual pedagogy, in a group in which the children had diverse language backgrounds. Hereafter, we will call the participant by the pseudonym Johanna. Johanna is a bilingual speaker of Finnish and Swedish, and she has a bachelor's degree in the field of ECEC (Palviainen et al., 2016). She also completed a module in pre-primary and primary education for pre-school teachers and in-service courses on immersion education and early language learning. We refer to Johanna as an expert teacher, based on her extensive work experience (over 20 years) from different ECEC contexts and her social recognition as an expert (Palmer et al., 2005).

She had been invited to give lectures about bilingual pedagogy both in Finland and Sweden and held a position at the ECEC unit where she was in charge of multicultural matters and Finnish as a second language teaching.

Johanna was chosen for the study because she is an expert ECEC teacher who had been researched earlier (e.g., Mård-Miettinen et al., 2015). The previous analyses, together with the present study, allowed us to uncover and understand the changes in her practical theory of language pedagogy. Earlier research focused on the bilingual approach of working—in Swedish and Finnish with Finnish-speaking children—which Johanna started implementing at one ECEC unit in 2012. Johanna applied linguistic principles, such as using Swedish in simple utterances and for concrete topics, while Finnish was used to mediate complex and emotional situations. She also had objectives, such as having the children become acquainted with Swedish and shaping their positive attitudes towards the new language (Mård-Miettinen et al., 2015; Palviainen & Mård-Miettinen, 2015). Johanna labelled the approach of working as ‘bilingual pedagogy’.

While the first ECEC unit Johanna worked in finished with bilingual pedagogy in 2015, Johanna continued her work in another ECEC unit in the same city and perpetuated her bilingual pedagogy there. She had worked in this second unit for several years before the data collection of this study. This unit was officially a Finnish-medium ECEC unit. During data collection, Johanna worked with three-to five-year-old children. There were around 20 children in her group, which was supervised by Johanna and two other early childhood educators¹. In the contrast to her previous ECEC unit, Johanna now worked with children who spoke some other language in addition to, or instead of, Finnish at home. The number of these children varied between three and eight. Their home languages varied, and most of them were not spoken by ECEC educators. Common to all children in the group, however, was that Swedish was a new language to learn through bilingual pedagogy.

2.2. Nexus analysis

We applied nexus analysis (Scollon & Scollon, 2004) to examine the interrelated factors that affected the changes in Johanna’s practical theory of language pedagogy. Nexus analysis—also referred to as mediated discourse analysis (Scollon, 2001)—is used to uncover complex and changing phenomena (Kuure et al., 2018) and can be applied in many ways (Hult, 2015; Kuure et al., 2018). Although nexus analysis was originally developed for analysing ethnographic data (Scollon & Scollon, 2004), it has also been applied to analyse mere interviews (e.g., Vorobeva, 2021).

In nexus analysis, the focus is on social action—*the nexus*—and the task of the analyst is to map and understand the ‘semiotic cycles of people, discourses, places, and mediational means involved in the social actions we are studying’ (Scollon & Scollon, 2004, p. viii).

1 one ECEC teacher and one nursery nurse

The nexus is situated at the intersection of three discourse types: *the historical body* of the participants (i.e., embodied experiences, habits, and personal beliefs), *the interaction order* (i.e., how the interaction proceeds and social and situational conventions regarding it), and *the discourses in place* (i.e., wider discourses through which the issue is situated and mediated) (Hult, 2015; Scollon & Scollon, 2004) (Figure 1). The analyst's task is to identify the most relevant discourses for the social issue at hand, which might mean that not all three dimensions are focused on to the same extent (Hult, 2015).

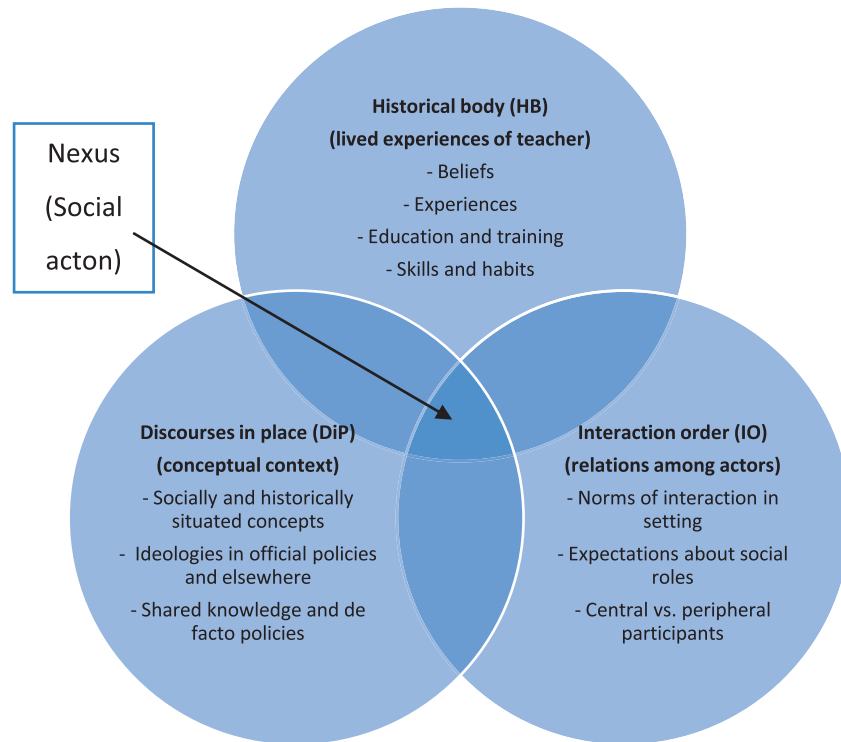


Figure 1. Intersection of discourse types in the nexus analysis in the current study (adapted from Hult, 2015, p. 224).

The study understood the nexus as the changes that occurred over time in the teacher's practical theory of language pedagogy. In particular, it concerns the teacher's reflections and interpretations, which are mediated through a series of interviews. The historical body (HB) in nexus analysis is closely related to the personal dimension in practical theory. In our nexus analysis, this refers to the personal history, earlier experiences, and beliefs that the teacher brings up as relevant for her way of working with language pedagogy. In turn, the interaction order (IO) is about relationships among actors corresponding to the interactional dimension in practical theory. We identified central and peripheral participants in the teacher's reflections, as well as norms and practices of interaction. Finally, discourses in place (DiP) explain the contextual dimension, including policies, norms, concepts, and physical spaces that impact the teacher's practical theory. Through this, we strove to understand the complexity of the factors affecting the changes in practical theory (Kuure et al., 2018).

2.3. Data and analysis

The data were gathered over two years, and they comprised one semi-structured interview (Interview 1) and two thematic interviews (Interviews 2 and 3). The semi-structured interview focused on what remained constant and what changed in Johanna's way of applying bilingual pedagogy, while the thematic interviews focused on e.g., principles, goals, collaboration, and development. The interviews included questions such as, 'Is there something that has changed over time?' and 'With whom do you collaborate and in what way?'. Altogether, the interviews lasted 2 hours and 11 minutes. There were 13 months between the first and last interviews. We focused on how the teacher in all the interviews reflected on the changes compared to when she worked in the previous ECEC unit. The thematic interviews were conducted by the first author, and the semi-structured interview was conducted by the second author. All interviews were recorded and transcribed. For all stages of data collection, guidelines from the Finnish National Board for Research Integrity (2012) were followed, including necessary research permissions and research consents. Since studying an expert teacher in a specific context creates a risk of the teacher being identifiable, this was discussed with the teacher before conducting the study.

The nexus analysis started with the first author reading and rereading the interview data several times to identify and map relevant discourses connected to the teacher's practical theory of language pedagogy. The research question stemmed from the relevant discourses detected in the data, and it was modified during the analysis process, which is typical for qualitative research (Patton, 2015). After this, a more detailed analysis was conducted to map 'anticipations and emanations, links, and transformations, their inherent timescales, and to place a circumference of relevance around the nexus of practice' (Scollon & Scollon, 2004, p. 160). All passages in which the teacher talked about the change in her practical theory (i.e., her thoughts of the change in her teaching) and the factors affecting it were coded. In this process, factors related to the teacher's historical body (HB, i.e., her experiences, beliefs, skills, and habits), discourses in place (DiPs, i.e., concepts, explicit or implicit policies), and her mediations of the interaction order (IO, i.e., interactional norms and practices, expectations about roles, and central or peripheral participants) that circulated through the nexus (Figure 1) were identified, categorised (HB, DiP, and IO), and interpreted. All relevant factors that were found to affect changes in the teacher's practical theory were categorised into one or more of the three categories (HB, DiP, and IO), and their interplay was examined.

3. Findings

The discourses representing the changes were related to identifying more types of situations for Swedish use on the one hand, and including the multilingual children's home languages, on the other. Several factors promoted and challenged these changes. In what follows, we

present in more detail how the interplay of factors related to the teacher's historical body, the interaction order, and discourses in place (Scollon & Scollon, 2004) affected the discourses representing the changes.

3.1. Factors affecting changes in the role of Swedish

As Mård-Miettinen et al. (2015) showed in their study of Johanna's practices when she started implementing bilingual pedagogy in the previous ECEC unit, she used Swedish mainly in teacher-led activities and some everyday situations (e.g., getting dressed and eating). Now, however, Johanna's beliefs about when it is possible to use Swedish have become extended. For example, she described bringing Swedish more into everyday ECEC situations and joining the children's play activities to support children's language development more than she did before. The results of the nexus analysis revealed a discourse in place (DiP) that influenced Johanna's beliefs about Swedish use: the so-called 'whole-day pedagogy' approach. In our earlier study (Palojärvi et al., 2021), this concept was identified as central to Johanna's practical theory of language pedagogy, and it indicates that the whole day in ECEC is seen as meaningful for learning, not only the formal learning situations. Johanna herself connected the whole-day pedagogy to the emphasis on holistic learning in the ECEC curriculum (EDUFI, 2019), as the following extract illustrates:

Well, of course, the curriculum has changed a bit, and now it is talked about this whole-day pedagogy, so that has a bit come in because of the curriculum. So I do the same as before, but a bit more than before, so that I have brought along both languages, Finnish and Swedish. (Interview 2)

Even though the concept of whole-day pedagogy can relate to the emphasis on holistic learning (Lämsä, 2021) in the ECEC curriculum (EDUFI, 2019), the concept itself is absent from the ECEC curriculum. This concept, however, was commonly used in discourse within academic contexts where Johanna had several connections. Hence, it can be assumed that the ECEC curriculum not only affected Johanna's practical theory but also her connections to and shared knowledge with the academic contexts. It was also apparent that the change towards the mindset of whole-day pedagogy was gradual:

Well, more [types of] practices have been added. At the start, I probably thought more about the adult-led situations, and there it started to be in situations in the entrance hall [e.g., dressing situations], so I started to utilize this whole-day pedagogy, but I feel that it is even more into it. So, one can do it at naptime (laughs). So, I find more and more of those situations all the time. (Interview 2)

In the example, Johanna refers to her historical body (HB), her experiences beginning with the bilingual pedagogy in the earlier ECEC unit she was working in, and that she first

thought only about having Swedish in adult-led situations and then gradually included it in some everyday situations. Finding the whole-day pedagogy concept supported her in becoming aware of more situations for the daily use of Swedish.

In addition to DiP and HB, interactional factors promoted a change in Johanna's practical theory. As part of the interaction order (IO), Johanna mentioned some actors as more important than others: the parents, the children themselves, and some of her colleagues. Johanna brought up considerable positive feedback from the parents and children (Palviainen & Mård-Miettinen, 2015). She quoted and reproduced the parents' voices [e.g., asking if they, too, could speak Swedish with Johanna or voicing their surprised comments on their children learning Swedish (e.g., counting numbers in Swedish at home)]. In addition, the children's use of Swedish came up repeatedly in Johanna's reflections as she recreated their Swedish utterances in her speech. These had a motivating effect, as Johanna described in the following example:

This [positive] reception has a big effect on how the families receive it because then I notice that they kind of become bolder, well, it becomes easier, and then the children too, that it is very natural [for them]. (Interview 1)

These positive reactions from the parents and noticing the children's Swedish language use seemed important in promoting Johanna's bilingual pedagogy and gave her the courage to not only carry on with it but also expand her thoughts of the use of Swedish to new situations.

In addition, the Swedish use of the other ECEC team members motivated Johanna, as can be seen in the following example:

It is good that, even though I am kind of alone [in this], I have a great team that understands what I am doing and [they] take part in it, like you heard yesterday NN [a colleague] [...] said to me something like, 'The other side' [in Swedish]. So, these are those kinds of great moments that we have every day. So in that way, the feedback is so concrete and empowering, so it would be crazy not to do this. (Interview 2)

In the example, Johanna recalls a situation in which her colleague inserted a Swedish expression into her otherwise Finnish speech. She explained that such situations appear almost daily and motivate her. In addition, the fact that she felt that her team understood her bilingual way of working was important to her. Such collegial support and confirmation promoted the expansion of the role of Swedish in her practical theory. Hence, colleagues were central participants in the interaction (IO).

Trying out things and reflecting on the effects were found at the intersection of experiences (HB), interaction (IO), and a concept (experimental pedagogy) (DiP). This promoted thinking about new situations in which Swedish could be used and finding well-functioning

ways of using it. For example, Johanna concluded that when singing songs, she now sings them either in Finnish or in Swedish instead of singing the same song in both languages, as she used to do before. This was because she felt that the children learned the Swedish words better if they did not know the same song in Finnish. Such experimenting and reflecting on what works and what does not was referred to as experimental pedagogy by Johanna. This highlights the importance of experiences and reflections when developing practical theory (Mukeredzi & Nyachowe, 2018).

The factor challenging the expansion of the role of Swedish in the teacher's practical theory was the norm of interaction (IO), in which the group was not officially a bilingual education group, that is, the municipality had not made an official decision about the implementation of bilingual pedagogy in Johanna's ECE unit. Instead, parents were informed about the use of bilingual pedagogy when their children entered Johanna's group. This contrasted with her work in the previous ECEC unit, in which the group had the official status of a bilingual group. In Johanna's view, getting an official status would help develop bilingual language use and the continuum of bilingual pedagogy.

3.2. Factors affecting changes in the role of multilingual children's home languages

Another change in Johanna's practical theory was that she also included the use of the children's home languages in her practical theory of language pedagogy. This broadened Johanna's bilingual pedagogy toward multilingual pedagogy. Several intersecting factors fostered the inclusion of home languages in practical theory. First, multilingual children with various home languages joined the ECEC group, which is a common phenomenon nowadays (Romøren et al., 2023). These children became central participants in the interaction (IO), which promoted the inclusion of their home languages in Johanna's practical theory.

Johanna's beliefs (HB) about the value of languages contributed to Johanna's beliefs about using the children's home languages. Johanna saw all languages as equally important and, hence, expressed a wish to encourage the use of the children's home languages and showed interest in learning them (Palojärvi et al., 2021).

It came from the objectives of the bilingual pedagogy that, 'Hey, your language, that those languages are equally important', and that objective I have linked to how to meet with the multilingual families [...] and how to playfully include their languages, so that kind of ideas came from this bilingual pedagogy. (Interview 3)

The idea of languages being equally important came from the core objectives of Johanna's bilingual pedagogy reported by Palviainen and Mård-Miettinen (2015) and expanded to include the languages of multilingual families. Hereby, Johanna's HB, her practical theory of all languages being equally important, affected the interaction (IO) with multilingual families by including their languages.

In addition, Johanna's own experiences (HB) of the importance of supporting the language identity of a multilingual child played a central role in why Johanna included the use of home languages in her practical theory, as in the following example:

Also, to use their knowledge in bringing their own languages and their courage, so I think that supporting their language identity is very important, probably because I have also had the same. (Interview 2)

As a bilingual person herself, Johanna experienced how important it is to support multilingual identity. Hence, her experiences (HB) affected her practical theory with multilingual children (Gilham & Fürstenau, 2020).

Furthermore, a concept (DiP) that was central to Johanna was 'participation'. The emphasis on participation, which is present in the ECEC curriculum (EDUFI, 2019), affected the fact that the use of home languages was included in Johanna's practical theory. In her view, one way to enhance the participation of multilingual children is to use their home language. Johanna also referred to her HB, i.e., her experiences of working and studying in Sweden, where this emphasis on participation had been central for a longer time, which made it easier for her to include it in her practical theory.

At the intersection of norms of interaction (IO) and concepts (DiPs) was Johanna's wish to create a language-enriched environment (EDUFI, 2019), and the concept of whole-day pedagogy affected the inclusion of home languages, as seen in the following example:

But exactly this thing, to make use of those languages [that come] via families, children, and the staff, you want to create this kind of language-enriched environment, so you should start with what you have, and I dare to say that in all ECEC units, there are languages if you just open your eyes and ears. And those languages can be included in the whole-day pedagogy that is based on what we did [in bilingual pedagogy]. (Interview 1)

In this example, Johanna used two concepts (DiPs): 'language-enriched', which originated from the ECEC curriculum (EDUFI, 2019), and 'whole-day pedagogy'. These intersected with the norms of interaction (IO), since they affected the way Johanna wanted to make use of the home languages in everyday situations in the ECEC group. In addition, Johanna's experiences (HB) affected the way she thought about the use of home languages, since she referred to her experiences of bilingual pedagogy and aimed to use similar ways of working with home languages.

Both families and colleagues were central participants in the interaction (IO). Families' positive attitudes towards teaching their language were a central factor supporting the inclusion of the children's home languages in Johanna's practical theory. Johanna described the families as happy to teach their languages and glad when they were given an opportunity to

do so. In addition, the team members helped bring in the children's home languages, which consolidated the use of different languages in the group and hence affected the role of home languages in Johanna's practical theory. As Johanna described it, the team members and she herself had a more equal footing in using the children's home languages since all of them were learners when using them.

In the interview, Johanna also brought up a challenging discourse (DiP). She indicated that the challenge in including the home language is the monolingual mindset that some colleagues have compared to her own multilingual mindset:

And especially when many see this as a monolingual ECEC unit and [the name of the town] is regarded as very monolingual, so it probably takes its time [...] and even in this house there are some ten fifteen different languages, and I think that should be visible in our everyday life. (Interview 2)

Having a monolingual norm is quite common among teachers (Tarnanen & Palviainen, 2018). However, as seen in the quote, Johanna does not share the view that the ECEC unit is monolingual and opposes it by saying that there are already several languages and that they should affect the way of working. In this way, Johanna utilises her agency to question the prevailing view and demonstrates a practical theory of including home languages.

4. Concluding discussion

This study examined through interview data and using nexus analysis, the interplay of factors that promoted and challenged the changes in ECEC expert teacher's practical theory of language pedagogy over time after her starting to work in a linguistically heterogeneous group. The discourses representing changes in the practical theory of language pedagogy were related to identifying more types of situations for the use of Swedish and including the multilingual children's home languages.

Personal factors that affected changes in the teacher's practical theory of language pedagogy were the belief that all languages were equally important and the teacher's own experiences of the importance of supporting language identity, which were central to the teacher's historical body. Also, at the intersection of personal, interactional, and contextual factors was reflecting on things that were tried out. The roles of reflection and experiences have also been shown to be central in previous research (Levin & He, 2008; Mukeredzi & Nyachowe, 2018). However, the way the teacher's belief of all languages being equally important affected the inclusion of children's home languages in the teacher's practical theory of language pedagogy was a new finding, and the belief affected the interaction order by including the home languages in the interaction. This points to the central role that beliefs play in changing practical theory when encountering a new context (i.e., a linguistically

heterogeneous child group). In this case, the belief was maintained and promoted other changes in practical theory that occurred due to the interplay of different personal, interactional, and contextual factors. This implies that beliefs might be catalysts for changes in practical theory.

In addition, several interactional factors have promoted changes in the teacher's practical theory of language pedagogy. The central participants in the interaction order were children, families, and colleagues. The colleague's role in the development of practical theory has been stated in the literature (Mukeredzi & Nyachowe, 2018; Pitkäniemi, 2010), but children and families being central in the development of a practical theory has not been foregrounded in previous research. This might be because previous studies of the changes in teacher's practical theory have been conducted in school contexts where the role of families is often not as central as in ECEC. Furthermore, also the Finnish context can affect this since in the Finnish ECEC curriculum (EDUFI, 2019) the cooperation between the ECEC staff and guardians is emphasised. Although the collaboration with and feedback from parents and children was important to the teacher earlier (Palviainen & Mård-Miettinen, 2015), over time, their significance for her practical theory became even more pronounced. Paying attention to children's learning was previously seen as a feature of a well-developed practical theory (Buitink, 2009). Unlike in the previous research (cf. Mukeredzi & Nyachowe, 2018; Pitkäniemi, 2010), participating in training was not a central catalyst to the changes. One reason for this may be that she had not participated in teacher training dealing with topics such as how to develop bilingual education or acknowledging multilingual children. The main obstacle in developing the teacher's thoughts of Swedish use was that the group lacked the official status of a bilingual group.

In addition to personal and interactional factors, several concepts circulated in the teacher's discourses (DiP) which had a great impact on her practical theory of language pedagogy. These concepts included whole-day pedagogy, participation, language-enriched environment (which intersected with the interaction order), and experimental pedagogy. Some of the concepts (language-enriched and participation) originated from the ECEC curriculum (EDUFI, 2019), whereas others originated from other contexts (whole-day pedagogy from academic contexts) or were invented by the teacher (experimental pedagogy). For the teacher, it was important to find labels for what she was doing. This helped her verbalise her practices and make them explicit, which promoted changes in her practical theory. This also underlines the importance of the concepts used in the ECEC curriculum (EDUFI, 2019). Although teachers can use their agency to contest or change existing policy (Palviainen et al., 2016), in this study, the concepts in the ECEC curriculum had a central effect in legitimising the teacher's practical theory. The main factor challenging the changes was the discourse of the ECEC unit and the town being monolingual. However, the teacher actively challenged this discourse by opposing the view and seeing the ECEC centre as multilingual. Here, the teacher utilised the agency she had as a teacher (Palviainen et al., 2016)

to change her way of viewing the ECEC centre. This implies that the teacher's practical theory was robust, even when encountering challenging discourses.

This study provides a multidimensional picture of the factors that affect changes in an expert teacher's practical theory even beyond the fields of language pedagogy. Hence, it contributes to understanding the changes in practical theory, which has previously been studied mainly with student teachers (Buitink, 2009; Kettle & Sellars, 1996; K rkk  et al., 2016; Levin & He, 2008). Therefore, this study illustrates the dynamicity of practical theory, which is an important feature of the practical theory that has been under-researched. The study also opens the interplay of the factors, which is a new viewpoint that needs to be studied further. Furthermore, the study contributes to the knowledge of practical theory in ECEC. This is crucial because ECEC is, of its structure and working culture, different from school contexts for which practical theories have been studied earlier. Especially in Finland, ECEC is based on a holistic approach to learning, with an emphasis on whole-day pedagogy and children's participation, thus being different from school contexts that still have more focus on subject areas. Therefore, knowledge from ECEC contexts can contribute to a wider understanding of practical theories. Moreover, this study highlights changes in the practical theory of language pedagogy that have not, to the best of our knowledge, been studied earlier. This is important, since changes in practical theory of language pedagogy affect how language education is conducted. Getting information about what affects the changes promotes an understanding of the multitude of factors essential to practical theory of language pedagogy.

This study shows that even the practical theory of an expert teacher changes, and conflicting pressures affect it. This study implies that there are many intersecting factors which affect these changes in teachers' social and conceptual surroundings. This is an important aspect to acknowledge when implementing in-service training for expert teachers, for example, by helping teachers map and reflect on the different factors that affect their practical theory in their surroundings. The findings also suggest some points that can be focused on in pre-service training. Since reflection is central to changing practical theory, it should already be taught in pre-service training, for example, through guided reflection, to provide students with tools for developing their practical theory after graduation. As interactions with children and parents are also central, teacher educators should reflect on how elements supporting these interactions can be incorporated into teacher training. Finally, since the terms in the ECEC curriculum (EDUFI, 2019) are central in supporting the changes in practical theory, pre-service teachers should be supported in their attempt to interpret the curriculum and use it as a source for innovation.

Methodologically, the study shows that nexus analysis is a valuable tool for providing detailed knowledge about the factors that contribute to the development of practical theory. Nexus analysis makes visible the changes occurring in practical theory over time, as well as the interconnections and interplay between the teacher's personal experience

and beliefs, concepts that emerge as relevant, and the norms of interactions between the teacher, colleagues, and children's families, which are important in achieving a holistic and in-depth understanding of practical theory.

However, there are some limitations to consider that are important to keep in mind. The changes in the practical theory were examined only through interview data; thus, only factors affecting the practical theory that the teacher was aware of and could recall could be reached. For example, adding a diary method to the data collection could have helped the teacher recall and reflect even more factors that affected the changes. Another limitation was that in the interview data the teacher's descriptions of the changes in her thinking and practices were so closely intertwined that it was sometimes hard to differentiate which were changes in her practical theory and which in the actual practices. However, the teacher's practical theory guides her practices, and therefore, the descriptions of changes in her practices also indicate changes in her practical theory (see Maaranen & Stenberg, 2017). Finally, since this was a case study of only one ECEC teacher, the findings cannot be generalised. Hence, there is a need for further studies on how other expert teachers change their practical theory and what affects these changes in different contexts.

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