Teachers' Pedagogical Competence in Finnish Early Childhood Education—A Narrative Literature Review

Samuli Ranta [1,*], Jonna Kangas [2], Heidi Harju-Luukkainen [3], Tuulikki Ukkonen-Mikkola [4], Marita Neitola [5], Jarmo Kinos [5], Nina Sajaniemi [1] and Arniika Kuusisto [2]

1   School of Applied Educational Science and Teacher Education, Philosophical Faculty, University of Eastern Finland, 80130 Joensuu, Finland; nina.sajaniemi@uef.fi
2   Faculty of Educational Science, University of Helsinki, 00014 Helsinki, Finland; jonna.kangas@helsinki.fi (J.K.); arniika.kuusisto@helsinki.fi (A.K.)
3   Kokkola University Consortium Chydenius, University of Jyväskylä, 40014 Jyväskylä, Finland; heidi.k.harju-luukkainen@jyu.fi
4   Department of Education, University of Jyväskylä, 40014 Jyväskylä, Finland; tuulikki.t.ukkonen-mikkola@jyu.fi
5   Department of Teacher Education, Faculty of Education Science, University of Turku, 20014 Turku, Finland; marnei@utu.fi (M.N.); jarkin@utu.fi (J.K.)
*   Correspondence: samuli.ranta@uef.fi

Abstract: Finnish early childhood education (ECE) is defined in education policies and research as an activity with an emphasis on pedagogy as a holistic and Nordic model of education. Pedagogical competence can be viewed as a special expertise of teachers responsible for the implementation of pedagogy in ECE. However, it is unclear how a teacher's pedagogical competence is defined, understood, and implemented in pedagogical practices and policies. Previous studies define pedagogical competence from different, often narrow, perspectives and various skills have been defined to be a part of teachers' pedagogical expertise. In this study, we aim to take a closer look at how teachers' pedagogical competence is defined in research literature in Finland. As our method, we use a narrative literature review of research papers published between 2010 and 2020. We were able to identify fourteen different definitions of pedagogical competencies that could be categorized into three main categories: (a) meta-competencies, (b) professional competencies, and (c) practical competencies. In summary, we argue that pedagogical competence is often narrowly understood. To implement high-quality ECE, teachers' pedagogical competence should be considered broadly and wholly. Particularly, the shared values and reflection of ethical questions are essential for supporting children's development and learning through holistic education.

Keywords: early childhood education; pedagogical competence; pedagogy; teacher; narrative review; meta-competencies; professional competencies; practical competencies

1. Introduction

Over the past decade, there has been an increased focus on early childhood education (ECE) in both political and educational spheres. This can be attributed to ongoing educational reforms in several countries, including Finland [1]. Additionally, many nations have prioritized the professionalization of ECE teachers as a central policy agenda [2]. Recent research literature has explored the shared understanding of pedagogy and the pedagogical competence of teachers [3,4]. Pedagogical competencies are recognized as the professional skills and expertise necessary for teachers' work [5]. This article examines pedagogical competence from the perspective of the Nordic dialogue model. The Nordic countries have established a comprehensive welfare approach known as the "Nordic model" that is characterized by robust social welfare systems and social cohesion, which naturally extends to the education systems. This approach recognizes that Nordic perspectives on pedagogy

are influenced by both national and global economies, as well as transnational cultural ideas and ideals concerning families and children. [6]. Thus, it can be considered a holistic approach aiming at the wellbeing, learning, and social development of the whole child. Moreover, it emphasizes the continuous development of pedagogical competence in the Nordic context [1].

In Finland, ECE encompasses institutional education for children aged 0 to 6 years. Historically, these services primarily focused on supporting parenting and enabling parents to work, with roots in social services [7]. However, a reform in 2013 shifted the emphasis toward pedagogy-oriented ECE by transferring the responsibility to the Ministry of Education. This reform aimed to integrate ECE as part of the continuous learning path, promote collaboration among educational services, ensure comprehensive education, and support the learning of children with special educational needs. The ECE Act [8] defines this educational framework, highlighting pedagogy as a central aspect and recognizing education as a right for every child. The goal of ECE is to foster children's learning, development, and well-being. Since 2010, this shift has led to rapid development in ECE activities and research-based advancements [9]. The importance of teachers' professional competence is understood in guiding policy documents in Finland, but the awareness needs to be emphasized more in practice and further development of the ECE system [1,9]. It is paramount to possess a comprehensive grasp of the expertise through pedagogical competence through dialogue.

Professionals working in ECE in Finland have diverse educational backgrounds, ranging from teachers with master's degrees in education to college-level–trained childcare nurses. Additionally, there is a long-standing tradition of team-based education involving professionals with various educational backgrounds working on similar tasks. However, this diversity can sometimes lead to ambiguity within teamwork and among individuals with different degrees [10]. Presently, ECE teachers qualify with a bachelor's degree (180 ECTS) or a master's degree (300 ECTS) from a research-based university. Previously, teachers could also qualify through a Bachelor of Social Services (210 ECTS) degree from the University of Applied Sciences. However, since 2023, this qualification no longer allows individuals to work as teachers. Childcare nurses (180 credits) receive their training in college-level education services.

To better understand the impact of pedagogical practices in Finnish ECE on children's development and discern the elements of high-quality pedagogy and adept teaching, it is important to grasp the concept of pedagogy and the essential competencies associated with it. This paper aims to explore the notion of teachers' pedagogical competence and its significance within the context of Finnish ECE through the research question: How has ECE teacher pedagogical competence been presented in the research between 2010 and 2020? Specifically, we will contextualize, through a narrative literature analysis, pedagogical competency as a fundamental aspect of teachers' work and further our understanding of professionalism and professional competencies related to teachers' expertise. Our theoretical framework will encompass different pedagogical approaches to contextualize pedagogical competence and gain a comprehensive understanding of teachers' pedagogical competencies in ECE.

2. Different Approaches to Pedagogy in ECE

The concept and understanding of pedagogy and the teacher's pedagogical competence in the practical context are connected. Concerning pedagogy as a holistic concept of actions, knowledge of learning and development, skills, and education culture, the pedagogical competencies term in this paper is used to cover different elements of teachers' expertise. The pedagogy in ECE can be defined from many perspectives because of the different approaches to learning, education, and understanding of childhood. For example, Bennet [11] has defined the differences between the Anglo–American pedagogy at the curricular level, which focuses on cognitive goals and "readiness for school" and the sociocultural pedagogical tradition, followed in Nordic countries and for example in

Australia, where the focus is more on children's social development and agency through playful and interaction-oriented approaches. The socio-cultural tradition defines the developmental aims more broadly, enabling the teachers to tailor the practices [12]. From a wider perspective, the pedagogy in ECE can be understood as holistic actions and practices by teachers and staff. In a more general definition, pedagogy covers not only teaching actions but developing a learning environment, operational culture, curriculum adaptation, discussions of the values and goals of education together with the methods and tools for interaction, scaffolding, supporting, enabling, observing, documenting, and evaluating the learning in the educational institutes [13,14]. In Finland, the concept of pedagogy in ECE is understood as the support of children's development through holistic care and education, and thus it relies on multi-theoretical foundations [14].

Kangas et al. [7] have formulated a tentative framework for different approaches to Nordic, especially Finnish, ECE pedagogy, which is used in this study as our framework for contextualizing pedagogical competence. In this framework, five approaches to pedagogy were constructed: pedagogy through interaction, scaffolding, didactics, expertise, and future orientation. Teachers' pedagogical competencies can be defined as understanding values and concepts, theoretical and curriculum knowledge, interaction, and teaching skills. These competencies are mentioned to be essential in all approaches to pedagogy in ECE. In addition, every approach has special key competencies described closer under each approach.

One of the approaches is **Pedagogy through Interaction**. It can be seen to focus on a child's well-being, safety, care, and sense of security [12]. In this approach, pedagogy is understood as an interactional resource between teachers and children [15]. Pedagogical interaction is considered from the viewpoints of emotional support and sensitiveness and responsiveness to children, through a warm atmosphere, observation, and consideration of children's interrelationships [5]. **Pedagogy through Scaffolding** focuses on supporting learning by enhancing the children's participation and agency and includes approaches to understanding the child's development, child orientation, and reflection [5]. **Pedagogy through Didactics** can be interpreted as the creation of the contents and preconditions for children's learning where didactic skills are at the center [16]. These skills are, in particular, content knowledge, teaching methods management, and teaching planning [17]. **Pedagogy through Expertise** approach focuses on the teachers' professional knowledge, skills, and competence in cooperation, shared understanding of learning, and substance competence [1]. The approach of **Pedagogy through Future Orientation** highlights a historical context and through future-orientated policies with concepts of transformative competencies, including new values; reconciling tensions and problems; and taking responsibility for oneself, others, and the environment [18,19]. In summary, different pedagogical approaches shape the teaching and learning practices in ECE, and teachers need diverse expertise to act dynamically and critically in different situations [20].

Among these approaches, Kangas et al. [7] have framed a dynamic pedagogical model that encompasses four essential elements: the child, the teacher, the content, and the learning process. The implementation of pedagogy in ECE can occur when all these factors are present in the process. In our study, we employ this model as a framework to define the scope of the research literature. Additionally, these diverse pedagogical approaches require teachers to possess a wide range of competencies, which we will next discuss.

3. Teachers' Pedagogical Expertise in ECE

Educational competencies define the professional and communicational skillsets that a teacher should have in practical work. However, understanding competencies tends to be unspecified and general [6]. Teachers' pedagogical competence is culture-specific, and strongly influenced by societal changes, goals, standards, and objectives [21–23]. Further, pedagogical competence is influenced by teacher education, which, in turn, affects the context in which the teachers operate [23,24]. According to Metsäpelto et al. [25], teachers' attributes, such as cognitive and social skills, personal orientations, professional well-being,

and knowledge-based reasoning, are the foundation of teachers' competencies, especially in Finland. Teachers' key competencies include situation-specific skills, teaching practices, and professional practices, which, in high-quality teaching, lead to teacher effectiveness and children's learning, well-being, and engagement [26].

Teachers' pedagogical competencies are identified by Pulham and Graham [27] to include (a) supporting students' skills, which include individual and class-based teaching and supporting skills, (b) developing learning community skills, which include cooperation, management, and participation in supporting skills, and (c) motivation strategies, including motivating students individually and in groups, and supporting well-being. All these represent the holistic approach of ECE in Nordic countries [9]. In Finland, the competencies in education have been defined to emphasize the need to provide prospective Finnish teachers with a wide basic knowledge, expertise, and agency that creates innovations, and both individual and organizational expertise [9].

From a wider perspective, pedagogical competence is combined with an examination of learning experiences from a child's perspective. The teacher understands the learners, considers their personalities and feelings, and identifies what kind of skills or opportunities the students have to learn [21]. Teachers evaluate their relationships with students, and students' relationships with each other, and help students reach their potential.

According to Kangas et al. [7], a teacher in ECE is "a person who has pedagogical training, especially specialized in the ECE." The concept of learning, values, curriculum, knowledge of the theoretical basis of educational science, and children's development and learning guide the teachers' pedagogical decisions [5,28]. In practice, a teacher's skills are the management of different learning strategies, behavior, assessment, and activities [21–23]. The teacher's pedagogical competence and knowledge, as well as a teacher's ethical decisions and responsibility, promote children's well-being and help children to grow as people [29].

In practice, both theoretical knowledge and skills, know-that, and know-how, are essential to teachers´ competence [24,30,31]. According to Shulman [32], teaching is based primarily on knowledge. An essential ability of teachers´ competence is their professional vision, which means their use of knowledge in changing classroom situations and reasoning their actions as knowledge-based [31,33]. The teacher must be able to utilize his or her theoretical knowledge, considering the goals set for the education, as well as the characteristics of the learners and competence [21]. Additionally, teachers' key skills (know-how) in Finland are planning, implementing, developing, evaluating, and reflecting on pedagogical activities and organizing learning environments, among others [5].

4. Data and Methods

In this paper, we use a narrative literature review of research papers published between 2010–2020 as a form of evidence-based educational practice and research. A literature review is an umbrella term for a range of styles that bring together or report several studies or summaries on a particular topic [34]. Often, these analyses evaluate the quality of previous research studies and conclude, enabling recommendations for policy and practice. A literature review, especially a narrative one, can serve as a refinement of mere syntheses, being more rigorous in nature and aiming to minimize bias through systematically and transparently applied methods and tools, utilized in more refined procedures and by safeguarding methodological rigor [35,36]. Additionally, the literature review can be seen as a reliable method since the data used in the analysis can be confirmed [34]. In a narrative literature review such as this, the focus is not to find and quantitatively list all existing data based on the existing frequencies but use an inclusive strategy to shed light also to more narrow threads of knowledge [36]. In addition to systematic reviews, narrative literature reviews consolidate diverse information into an easily understandable format. These reviews offer a broad perspective on a particular topic, often delving into the historical context or the evolution of a problem and its management [37,38].

Narrative literature reviews are commonly conducted to address questions such as the existing knowledge of a phenomenon, the key concepts involved, and their relationships. The aim is to analyze the prevailing discourse on the topic, identify whether consensus or debate exists, and examine the developmental trends and theories associated with it. By doing so, these reviews aim to identify, reinforce, or challenge the questions raised by previous research while also identifying gaps or inconsistencies in the existing body of knowledge [39]. Evans and Benefield [35] establish a connection between the method of literature review and the broader trend of "evidence-informed policy-making", thereby establishing a framework for conducting literature reviews. Important in our process was to identify different approaches shaping the pedagogical expertise in ECE through our research question: How has ECE teacher pedagogical competence been presented in the research between 2010 and 2020? Specifically, we will contextualize understanding of the pedagogical competencies related to teachers' professional expertise. Within this process, Evans and Benefield [35] identify six principles that delineate the stages of a narrative literature review:

(1) Specifying a clear research question to be addressed in the analysis
(2) Systematic and exhaustive searching for studies in the previous research literature was conducted through scientifical databases, with different keywords using the Boolean algorithm. The Boolean algorithm evaluates two statements or expressions using logical operators, such as AND, OR, and NOT [40]. The Boolean algorithm yields a true or false outcome, facilitating effective information retrieval and analysis [41]. The search was focused on educational sciences and specifically on the teacher's pedagogical competence, excluding the dimension of leadership. To ensure the exclusion of the leadership dimension, the keywords "early childhood education" AND Finland AND NOT (leader OR leadership) were employed, with a specific focus on articles with titles that contained the term "pedagogy" (see Figure 1).
(3) Clear criteria for including and excluding studies. The initial search resulted in 132 thematically relevant studies. The research focus was established on English-written research articles in the Finnish context between 2010 and 2020. This period corresponds to when the pedagogical approach in Finnish early childhood education (ECE) received significant emphasis. Consequently, sixty-two older researchers were excluded from the study. Next, the titles and the abstracts of remaining data were reviewed and those where the four elements of pedagogy are identifiable [7] or a definition of the pedagogical competence of teachers were included as in the following excerpt from the article by Peterson et al. [42]: "The practice of professionalism is shaped by the teacher's pedagogical awareness of children's developmental and pedagogical needs, parents' expectations, teacher's support from the context for growth environment of the child, parent–teacher partnership, and the regulations of the curricula, including cultural-historical dimensions". A total of fifty articles were excluded from the analysis due to their not provide a clear definition of the term "pedagogy" or "pedagogical competence".
(4) Evaluation of the methodological quality of the chosen studies. The emphasis on pedagogy in Finnish ECE, especially in the political agenda, without a clear definition of what teachers' pedagogical competence is, shaped the research task. A clear definition of competencies in pedagogy was needed in research and policy. The data in this research are textual; thus the narrative nature of the literature review was evaluated to offer clarified explanations and definitions of the multi-dimensional concept of pedagogy [14].
(5) Strategies to reduce bias in both selection and review. The data consisting of twenty studies were read and analyzed using the pedagogical framework as a theoretical basis. The first phase of analysis was tabulated using the descriptions referring to the teacher's competence. At this stage, five articles were excluded as they lacked a clear depiction of pedagogical competence. Consequently, our final dataset consisted of fourteen peer-reviewed research articles focusing on early childhood education

in the Finnish context. The teacher's competence was classified through systematic classification together with the research team. Diverse skills were discussed and for example, teamwork skills were excluded because of their role of general working life skills and not pedagogical competence. The research team agreed that teamwork skills are skills that belong to all ECE professionals and are not limited to teachers' pedagogical competencies.

(6)   Transparency of the methodology for carrying out the review. The selected methodological ontology focusing on the pedagogy as a concept was followed throughout the research process. Transparency has been considered by selecting and reporting the research articles written in English, which makes it possible to view the data also for an international reader. The selection procedure of the research papers was performed as described in Figure 1. As the author's team is considerably large, all actively working on research in the field, some selected articles included co-authors from the team. Three co-authors are involved in five selected articles. However, it was agreed that excluding those papers would have caused more bias to the sample and findings (the definition of pedagogical competence would remain narrow) than including them.

In Figure 1, we describe the selection procedure for our papers closer.
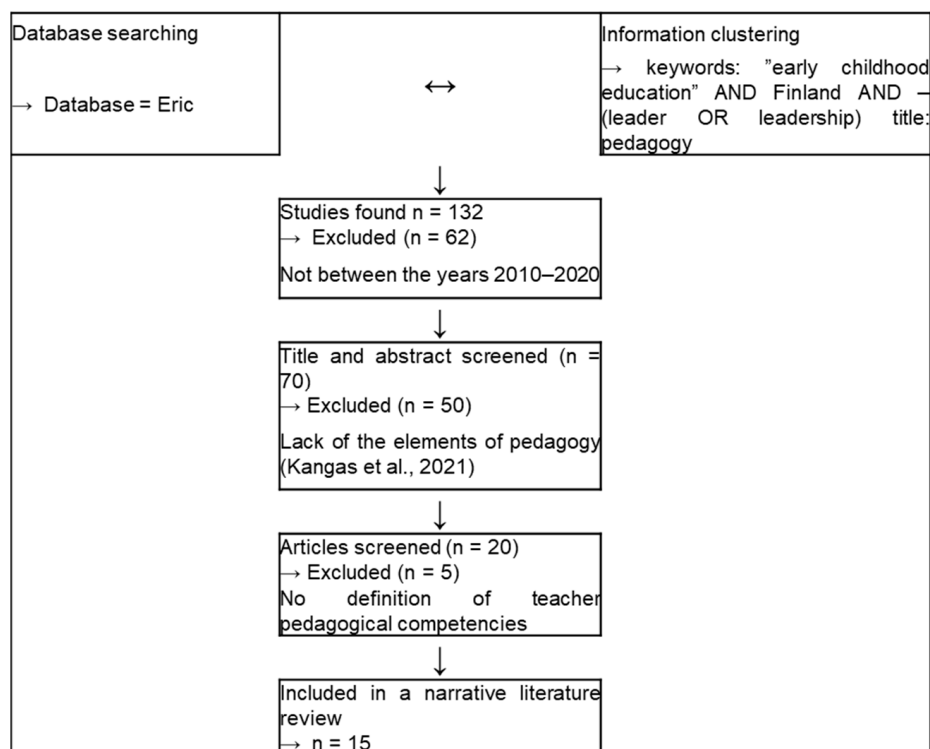
Figure 1. The selection procedure of research papers included.

5. The Competencies of Teachers Based on the Literature Review

The analysis for the narrative literature review aimed to define teachers' pedagogical competence. The chosen method for data analysis was content analysis, which is a systematic approach used to draw reliable and consistent conclusions about the relationship between data and the phenomenon under study.

The analysis process followed the steps outlined by Hsieh and Shannon [38]. Firstly, the researchers read the selected literature repeatedly to gain a thorough understanding of the data. They then identified codes by highlighting specific words or phrases that captured the subject of study.

In the selected research papers, the pedagogical expertise was described and defined in multiple ways. The idea behind the teachers' as expert professionals possessing special skills and competencies [43–45] was followed within the analysis process. We categorized the data according to the context and focused on how the pedagogical competence was presented in them. The definitions of pedagogical competence were divided into fourteen different categories. The most commonly mentioned categories were Teaching Skills (noted in 10 different papers), Planning and Designing (noted in eight different papers), and Child-Centeredness and Interaction and Sensitivity (both noted in eight different papers). The identified categories were further organized into main categories based on the theoretical framework (Table 1). These main categories of pedagogical competence were (a) meta competencies, (b) professional competencies, and (c) practical competencies. We have included, in the analysis, those main categories of pedagogical competence that are mentioned in more than one article ($n > 1$, see Table 1).

Table 1. Elements of teachers' pedagogical competence.

Elements of Teachers' Competence					
n	**Meta-Competencies**	*n*	**Professional Competencies**	*n*	**Practical Competence**
7	Curriculum management	8	Planning and designing	10	Teaching skills
3	Substance know-how	6	Organizing and managing the learning environment	8	Child-centeredness
3	Methodological awareness	6	Organizing the learning environment	8	Interaction and sensitivity
3	Knowledge of developmental theories	5	Reflecting and evaluating	6	Enhancing participation
				5	Understanding of peer-mediated interventions
				4	Feedback skills

6. Meta-Competencies

The first main category describes pedagogical meta-competencies of teachers through a deeper understanding and awareness of the context of ECE, pedagogical thinking, and curriculum, substance, methodological, and theoretical knowledge. In this curriculum, management was defined to be competence, which supports teachers to choose the appropriate content and methods from the curriculum [46]. Curriculum management includes substance knowledge [13]. Curricular goals and outcomes are linked with teacher-led and -guided activities [47]. The curriculum was also understood to shape and give meaning to teachers' pedagogical awareness [42]. The teacher needs to be aware of the goals and values behind the legislation and curricula [12,23]. Curriculum management skills were seen to create expertise and professional skills for curriculum implementation [48]. Other key elements in the category were the theoretical and substance know-how and knowledge of teaching methods. The substance know-how was described to form teachers' key expertise areas [48] and connected with concepts of learning through the understanding and awareness of proper teaching methods [23,49]. Teaching methods were understood more holistically as teaching and interaction strategies, where teachers' metacognition and awareness were described to focus on the scaffolding and supporting learning [23,48,49]. This was also connected with a theoretical understanding of child development and learning [42,50] and, further, the choice of age-appropriate teaching methods [23]. (see Table 2).

Table 2. Subcategories of meta-competencies.

Class	N of Mentions	Within Research Papers	Meanings (Keywords)
Curriculum management	7	[13,23,42,46–52]	The pedagogy of early childhood education is built around the curriculum, use of appropriate content and structure in teaching, subject knowledge, and awareness of values and goals of education
Substance know-how	3	[23,48,49]	The organization of teaching within a subject, choices of appropriate learning methods, scaffolding learning
Methodological awareness	3	[23,48,49]	Use of appropriate teaching methods, understanding of the effect of methods, know-how of methods in use, suitable methods for children of different ages
Knowledge of developmental theories	3	[13,23,49]	Understanding of development and psychology of learning

7. Professional Competencies

The second main category describes and defines the pedagogical competence of teachers through descriptions and definitions of teachers' professional knowledge, understanding, and competence in the level of initiatives, decisions, and professional actions (see Table 3). The most common aspect of the professional competencies was the ability to plan the implementation of pedagogical activities [13,51]. Planning includes active substance know-how [50]. Competence to plan pedagogical activities, the transfer of knowledge, and scaffolding are required from teachers of ECE. It is especially important to use both the curriculum, its goals and strategies, and children's interests and needs as a basis for pedagogical activities [42,46,47]. Finally, the planning is not understood as a pedagogical activity taking place before the implementation, but a teacher should observe and reflect on children's participation, activity level, and intentions during the activity and be able to change the pedagogical plan [52,53]. The competence and skills to organize and manage the learning environment were the second subcategories. In general, the management of the learning environment consisted of skills and knowledge to organize and design the classroom and outdoor environment to support children's sense of security and enable learning [13,42,52,54]. Learning environment management was described as a continuous process where teachers should coordinate, on one hand, the simultaneous activities and regulations, and, on the other hand, children's participation, self-directedness, and resilience to make the operations smooth [13]. The evaluation and assessment of knowledge were part of the category. The evaluation should take place through a combination of assessing children's outcomes based on developmental psychology [42], and the reflection of teaching actions and classroom management [13]. In ECE, teachers should also be able to assess their co-workers and team members and give constructive feedback to them [23,42]. This was also connected with coordinating the operational culture and the education community, which included both support for children's peer relations and activities [28,42,52,54], and co-operation management between the employees within the professional competencies [46]. Education community management was seen as an important part of forming a shared understanding of pedagogical processes and routines through professional reflection [54].

Table 3. Subcategories of professional competencies.

Class	N of Mentions	Within Research Papers	Meanings (Keywords)
Planning and designing	8	[13,23,42,46,47,52,53,55]	Development of continuous learning, skills to plan appropriate activities, holistic planning and designing skills, contextual planning of learning culture, planning of classroom interaction
Organizing and managing the learning environment	6	[13,42,46–52]	Designing the learning environment, using appropriate tools and materials, continuous organization of learning environment, safe and secure environment, managing the participation and learning within the learning environment
Reflecting and evaluating	5	[13,23,28,42,48]	Reflection of choices and pedagogical tools constantly, evaluation of learning and development, critical reflection skills, Self-evaluation capabilities, development of practices
The organization of the school community	5	[13,28,42,46,52]	Management and organization of social environment and learning culture, organization of visibility of children's initiatives and needs, multiprofessional competence and working culture development

8. Practical Competencies

The third main category, practical competencies, described the practical actions, choices, and implementations of teachers holistically (see Table 4). This category included teaching methods and skills, which included the know-how of strategies of scaffolding and supporting learning in specific ages and developmental levels of children [13,42,52,55]. Teaching skills were explained from different perspectives, from teaching an individual child [48] to supporting children's peer relations with the chosen teaching practices [56]. Teaching methods should also enhance children's motivation toward learning. This was connected with another class within this category: child-centeredness. In child-centeredness, the views, opinions, interests, and initiatives of children, together with their previous experiences and knowledge, were expected to be pedagogically connected with the learning and curriculum-based activities [28,47,49,53]. Another class connected with teaching methods was evaluation skills, especially feedback skills. Teachers were expected to organize learning activities to offer positive experiences of practicing and learning through self-assessment and action [54]. On the other hand, the dialogue and discussion between children and teachers were described to be methods for good-quality feedback through interaction [53]. The frequency of giving feedback was also considered to be important [47]. Pedagogical interaction, together with the enhancement of participation skills, were also important elements of teachers' pedagogical competence. Interaction with the children was described to be intentional and planned by the teacher [55,56]. A teacher should, according to Happo et al. [23], have excellent interaction skills. The teacher was expected to be present and actively listen and interact with children and be interested in them. This was also connected with the understanding and utilization of peer-mediated interventions and support in the class. Finnish ECE is based on the concept of socio-cultural learning, where peer contact and shared meaning-making are important [53]. Through professional interaction skills and initiatives, teachers support children to interact with peers and cooperate [47,51,56]. Through practical competence, the teachers were able to connect the peer-support with learning processes [52].

Table 4. Subcategories of practical competencies.

Class	N of Mentions	Within Research Papers	Meanings (Keywords)
Teaching skills	10	[13,23,28,42,46–49,52,55,56]	Choices of flexible teaching methods, choices of methods during a lesson, child-appropriate methods (age and developmental level), knowledge of teaching strategies, methods for creative and self-initiated learning
Child-centeredness	8	[23,28,47–49,52,53,56]	Taking account of children's initiatives, knowledge of children's previous experiences, understanding of children's needs, strengthening the potentiality to learn, flexibility toward children's ideas in class
Interaction and sensitivity	8	[13,23,42,51,52,54–56]	Emotional support, listening skills, interaction and scaffolding skills, understanding of pedagogical interaction, supportive and goal-oriented interaction
Enhancing participation	6	[28,42,52,53,56]	Enabling children's participation, giving opportunities to express oneself, guiding children to taking part and being active, understanding the process of motivation, taking initiatives into account
Understanding of peer-mediated interventions	5	[47,51,52,54,56]	Supporting children's cooperation and peer interaction, enabling peer-related learning, scaffolding cooperative actions, organizing social learning opportunities
Feedback skills	4	[47,51,53,54]	Dialogue skills, listening to children's verbal and non-verbal feedback, giving feedback on learning and behavior, sharing reflection with children, continuous feedback processes

In these research papers, participation was understood through taking part in learning activities, which a teacher should be able to support through pedagogy [54], and through enabling children's participatory learning [28,53]. The participation through the involvement of children to be able to make choices and influence everyday activities was also described to require pedagogical competence to enable children's agency [52,53]. Teachers' pedagogical competence was to connect children's initiatives and needs with existing resources [48,52,56] and be able to form activities that were flexible and adaptable [28].

9. Discussion

In this paper, we have examined teachers' pedagogical competence as a notion, in the context of Finnish ECE. After a narrative review of peer-reviewed papers, we could identify fourteen different definitions of pedagogical competence. The most commonly mentioned category was Teaching Skills (noted in 10 different articles), Planning and Designing (noted in eight different articles), and Child-Centeredness and Interaction and Sensitivity (both noted in eight different articles). These categories reflect the framework of different understandings of pedagogy itself [7], including the didactic approach (mirroring the teaching skills), scaffolding approach (mirroring the child-centeredness and planning and designing skills), and interaction approach (mirroring the interaction and sensitivity). The identified categories were further organized into main categories based on our theoretical

framework. The main three categories of pedagogical competence were identified as (a) meta-competencies, (b) professional competencies, and (c) practical competencies.

According to our findings, meta competence focused on teachers' deeper understanding and awareness of the ECE context, pedagogical thinking, curriculum, substance, methodological, and theoretical knowledge. Based on the analysis, we identified that the pedagogical competencies of teachers are related to culture, values, and beliefs that are both transformative and complex concepts [28]. In meta-competencies, the curriculum knowledge is focused, and the values of the pedagogy have minor roles. The values are strongly guiding teachers' pedagogical decisions [5]; however, this area receives very little attention in the research literature. When viewing through approaches of pedagogy [7], the meta-cognitive competencies play essential roles in different ways of seeing, but also in developing the pedagogy further. The second main category, professional competence, includes descriptions and definitions of teachers' professional knowledge, understanding, and competence on the level of initiatives, decisions, and professional actions. These competencies are essential for high-quality pedagogy. Particularly, theoretical knowledge is central to teachers' competence [20,27,30,31]. Also, earlier studies prove that the decisions and actions in classrooms are knowledge-based [21,37]. Without professional competencies, developing ECE and also developing professional skills in practice is difficult when teachers do not possess enough reflective competencies (see [23,32]). The third main category, practical competencies, describes direct and practical actions, choices, and implementations concerning pedagogical work in the field. These competencies are interaction and sensitivity skills, enhancing participation, and feedback skills, among others. These visible skills are described also in earlier studies [27]. In summary, our findings are in line with earlier studies. These emphasize that research is highlighting practical competencies, not values and concepts within pedagogy [5].

To develop the pedagogical competencies further in the field of ECE, the role of defining and modeling these competencies should not only be in the hands of scientists. Teachers who are trained at the university level through research-oriented programs can understand the multi-dimensional and life-long development of their competencies [43]. This is why teacher education should not focus only on the practices of teaching but follow the holistic understanding of ECE as the support of children's development through holistic care and education, ethical questions, and critical reflection [14]. As Reid [44] states, teacher training should be rich, strong, diverse, and inclusive—good enough today to prepare teachers for tomorrow.

Based on our research, we have raised three challenges regarding the notion of pedagogy and pedagogical competence. Firstly, it is impossible to study and contextualize a phenomenon that is not defined. The fact that the notion of pedagogy has not been defined in the research literature or has been defined from multiple points of view [7], becomes a challenge regarding the ECE systems politically and through praxis. This has had its natural effects on at least the field of research, policy documents, and teacher education but also on pedagogical practices [45]. Secondly, policymakers, without a clear definition of pedagogy, cannot form clear policy guidance regarding pedagogy in practice or the values and goals behind it. If you do not clearly understand the notion of pedagogy, how can you define it in relation, for instance, to quality? Thirdly, the competence-oriented debate in science and educational research is not a new phenomenon because teaching is simultaneously a highly academic and very practical profession. When the pedagogical competencies of teachers are developed consciously and through awareness of different skill sets, teachers can form a strong conceptual base and master the teaching profession. It is noteworthy that in our data, the most mentions were of practical skills, teachers thinking through their hands: pedagogy is neither science nor art, but a craft of teaching.

Our research has brought to light a notable concern among our research team regarding the insufficient use of the term "pedagogy" in studies focused on Finnish ECE. It has come to our attention that in many of these studies, the term "pedagogy" is frequently mentioned without being adequately defined or accompanied by a clear comprehension of

its meaning and specific practices. The term "pedagogy" seems to be used carelessly, almost as a filler word lacking substantive content. To address this issue, we conducted a thorough examination of several articles, and out of the selected studies, only fifteen provided explicit descriptions of the knowledge and skills required for effective pedagogy implementation. Through our research, we have identified the competencies that are interconnected with pedagogy as part of high-quality ECE. Recognizing these competencies provides an opportunity to further strengthen teachers' pedagogical skills both in the workplace and in training, enhancing the quality of ECE and promoting children's learning and well-being. By delving deeper into these specific competencies, our research aims to clarify the meaning of pedagogical competence and shed light on the various skills associated with pedagogy. We firmly believe that this endeavor will not only benefit researchers but also provide universities, ECE professionals, and policymakers with a valuable opportunity to enhance their understanding of implementing high-quality pedagogy.

Finally, this research gives essential notification to policymakers that the research findings and scientific congruence should be the basis of political decisions in education. When education laws and curricula are formed, the focus should be on different categories of competencies that the teaching staff provides, implements, and develops in the organizational culture. If we focus only on one category of competence—for example, the practical competencies—we end up despising the theoretical understanding and ethical considerations strongly needed in the political and practical field of education. When the categories are compared with and critically reflected on each other, a process of increasing awareness and development plans—both organizational and personal—can be formed. As shown by Tirri and Husu [29], theoretical knowing and actions in practice are not necessarily based on the same principles, values, morale, and hopes for the future. The teachers themselves can be promoted to act at relational levels aiming to construct a professional agency focused on not only maintaining, but also developing, education at different levels from classroom practices to society [1]. Pedagogy in ECE is a teacher's key competence. To prevent inflation, teacher professional competence awareness should be emphasized within the research on teachers' pedagogical expertise and considered in policymaking. It is paramount to possess a comprehensive grasp of the concepts of pedagogy and pedagogical competence within the context of political decision-making through dialogue. As highlighted by Kangas et al. [7], pedagogy should not be understood in a one-dimensional manner; rather, certain characteristics need to be recognized to meet the definition of pedagogy and further on constructing the demands for the ECE teachers' expertise and competencies in Nordic context [6,9,23]. More research in this topic could be done in the Nordic countries and to widen the explored area, for example, by SEN classrooms or outdoor activities as Bergan et al. [57] suggest. The shared conception of teachers' competencies as a base of expertise of ECE is fundamental for initiating efforts aimed at development of quality and ensuring comprehension of the policies, teacher training programs, professional requirements, and practical implications. Additionally, this comprehension plays a crucial role in exploring avenues for enhancing academic teacher education (see [13,48]).

There are some natural limitations concerning this study. First of all, we were focusing on the definitions of pedagogical competencies in Finnish ECE through international peer-reviewed research papers. Also, the studies focusing on the management and leadership of ECE were not selected in the search, because the intention was to explore the teachers' skills and competencies, not leaders. It is relevant to mention that not all selected studies were focusing solely on pedagogy. However, the pedagogies were mentioned in keywords or abstracts of these studies and, thus, they were relevant to this study. The results of this study are replicable since the data are available for all.

References

1. Garvis, S.; Phillipson, S.; Harju-Luukkainen, H. (Eds.) *International Perspectives on Early Childhood Education and Care: Early Childhood Education in the 21st Century*; Routledge: New York, NY, USA, 2018; Volume I.
2. Nolan, A.; Molla, T. Building teacher professional capabilities through transformative learning. *Asia-Pac. J. Teach. Educ.* **2021**, *49*, 450–465. [CrossRef]
3. Bartholdsson, Å. "When there is a book to stick to": Teacher professionalism and manual-based programmes in two Swedish early childhood education settings. *Educ. Inquiry* **2021**, *12*, 17–34. [CrossRef]
4. Lunn Browlee, J.; Schraw, G.; Walker, S.; Ryan, M. Changes in preservice teachers' personal epistemologies. In *Handbook of Epistemic Cognition*; Greene, J., Sandoval, B., Braten, I., Eds.; Routledge: New York, NY, USA, 2016; pp. 300–325.
5. Albanese, M.A.; Mejicano, G.; Mullan, P.; Kokotailo, P.; Gruppen, L. Defining characteristics of educational competencies. *Med. Educ.* **2008**, *42*, 248–255. [CrossRef] [PubMed]
6. Garvis, S.; Ødegaard, E.E. (Eds.) *Nordic Dialogues on Children and Families*; Routledge: London, UK, 2017.
7. Kangas, J.; Ukkonen–Mikkola, T.; Harju–Luukkainen, H.; Ranta, S.; Chydenius, H.; Lahdenperä, J.; Neitola, M.; Kinos, J.; Sajaniemi, N.; Ruokonen, I. Understanding Different Approaches to ECE Pedagogy through Tensions. *Educ. Sci.* **2021**, *11*, 790. [CrossRef]
8. Early Childhood Education Act, Law 580. Helsinki, Suomen laki ja asetuskokoelma. 2015. Available online: https://www.finlex.fi/fi/laki/ajantasa/2018/20180540 (accessed on 12 April 2021).
9. Kumpulainen, K. A principled, personalized, trusting and child-centric ECEC system in Finland. In *The Early Advantage 1: Early Childhood Systems That Lead by Example—A Comparative Focus on International Early Childhood Education*; Kagan, S.L., Ed.; Teachers College Press: New York, NY, USA, 2018; pp. 72–98.
10. Ranta, S.; Harju-Luukkainen, H.; Kahila, S.; Korkeaniemi, E. "At Worst It Leads to Madness." A Phenomenographic Approach on How Early Childhood Education Professionals Experience Emotions in Teamwork. *Nord. Barnehageforskning* **2022**, *19*, 19–41. [CrossRef]
11. Bennett, J. Curriculum issues in national policy-making. *Eur. Early Child. Educ. Res. J.* **2005**, *13*, 5–23. [CrossRef]
12. Pianta, R.C.; Hamre, B.K.; Nguyen, T. Measuring and improving quality in early care and education. *Early Child. Res. Q.* **2020**, *51*, 285–287. [CrossRef]
13. Happo, I.; Määttä, K. Expertise of early childhood educators. *Int. Educ. Stud.* **2011**, *4*, 91–99. [CrossRef]
14. Harju–Luukkainen, H.; Kangas, J.; Garvis, S. (Eds.) *Finnish Early Childhood Education and Care: A Multi–Theoretical Perspective on Research and Practice*; Early Childhood Research and Education: An Inter-theoretical Focus; Springer: Cham, Switzerland, 2022.
15. Pursi, A.; Lipponen, L. Constituting Play Connection with Very Young Children: Adults' Active Participation in Play. *Learn. Cult. Soc. Interact.* **2018**, *17*, 21–37. [CrossRef]
16. Brostrøm, S.; Veijleskov, H. *Didactics in Preschool: Plans, Principles and Practice*; Dofolo: Fredrikshavn, Denmark, 2009.
17. Ruokonen, I.; Tervaniemi, M.; Reunamo, J. The Significance of Music in Early Childhood Education and Care of Toddlers in Finland: An Extensive Observational Study. *Music Educ. Res.* **2021**, *23*, 634–646. [CrossRef]
18. Kansanen, P. The role of general education in teacher education. *Z. Erziehungswiss.* **2004**, *7*, 207–218. [CrossRef]
19. OECD. *Future of Education and Skills 2030*; OECD Learning Compass 2030 a Series of Concept Notes; OECD: Paris, France, 2018.
20. Ryan, M.; Carrington, S.; Selva, G.; Healy, A. Taking a 'Reality' Check: Expanding Pre-Service Teachers' Views on Pedagogy and Diversity. *Asia-Pac. J. Teach. Educ.* **2009**, *37*, 155–173. [CrossRef]
21. Rahman, A.W. Students' Perception toward Good Lecturer Pedagogic Competence. *Eng. Lit. J.* **2016**, *3*, 141–155. Available online: https://journal.uin-alauddin.ac.id/index.php/elite/article/view/7652 (accessed on 21 March 2020).
22. Suciu, A.I.; Mata, L. Pedagogical Competences—The Key to Efficient Education. *Int. Online J. Educ. Sci.* **2011**, *3*, 411–423.
23. Happo, I.; Määttä, K.; Uusiautti, S. Experts or good educators—Or both? The development of early childhood educators' expertise in Finland. *Early Child Dev. Care* **2012**, *182*, 487–504. [CrossRef]

24. Young, M.; Muller, J. Truth and Truthfulness in the Sociology of Educational Knowledge. *Theory Res. Educ.* **2007**, *5*, 173–201. [CrossRef]

25. Metsäpelto, R.-L.; Poikkeus, A.-M.; Heikkilä, M.; Husu, J.; Laine, A.; Lappalainen, K.; Lähteenmäki, M.; Mikkilä-Erdmann, M.; Warinowski, A.; Iiskala, T.; et al. A multidimensional adapted process model of teaching. *Educ. Assess. Eval. Account.* **2022**, *34*, 143–172. [CrossRef]

26. Blömeke, S.; Kaiser, G. Understanding the development of teachers' professional competencies as personally, situationally, and societally determined. In *International Handbook of Research on Teacher Education*; Clandinin, D.J., Husu, J., Eds.; Sage, Springer: New York, NY, USA, 2017; pp. 783–802.

27. Pulham, E.; Graham, C.R. Comparing K-12 online and blended teaching competencies: A literature review. *Distance Educ.* **2018**, *39*, 411–432. [CrossRef]

28. Helavaara Robertson, L.; Kinos, J.; Barbour, N.; Pukk, M.; Rosqvist, L. Child-initiated pedagogies in Finland, Estonia and England: Exploring young children's views on decisions. *Early Child Dev. Care* **2015**, *185*, 1815–1827. [CrossRef]

29. Tirri, K.; Husu, J.; Kansanen, P. The Epistemological Stance between the Knower and the Known. *Teach. Teach. Educ.* **1999**, *15*, 911–922. [CrossRef]

30. Campbell Barr, V.J.G. Professional Knowledges for Early Childhood Education and Care. *J. Child. Stud.* **2019**, *44*, 134–146. [CrossRef]

31. Dinham, J.; Choy, S.C.; Williams, P.; Yim, J.S.C. Effective teaching and the role of reflective practices in the Malaysian and Australian education systems: A scoping review. *Asia-Pac. J. Teach. Educ.* **2021**, *49*, 435–449. [CrossRef]

32. Shulman, L. Knowledge and Teaching: Foundations of the New Reform. *Harv. Educ. Rev.* **1987**, *57*, 1–23. [CrossRef]

33. Seidel, T.; Stürmer, K. Modeling and Measuring the Structure of Professional Vision in Preservice Teachers. *Am. Educ. Res. J.* **2014**, *51*, 739–771. [CrossRef]

34. Cohen, L.; Manion, L.; Morrison, K. *Research Methods in Education*; Routledge: New York, NY, USA, 2002.

35. Evans, J.; Benefield, P. Systematic reviews of educational research: Does the medical model fit? *Br. Educ. Res. J.* **2001**, *27*, 527–541. [CrossRef]

36. Ferrari, R. Writing narrative style literature reviews. *Med. Writ.* **2015**, *24*, 230–235. [CrossRef]

37. Green, B.N.; Johnson, C.D.; Adams, A. Writing narrative literature reviews for peer-reviewed journals: Secrets of the trade. *J. Chiropr. Med.* **2006**, *5*, 101–117. [CrossRef]

38. Hsieh, H.; Shannon, S. Three Approaches to Qualitative Content Analysis. *Qual. Health Res.* **2005**, *15*, 1277–1288. [CrossRef]

39. Kangasniemi, M.; Utriainen, K.; Ahonen, S.M.; Pietilä, A.M.; Jääskeläinen, P.; Liikanen, E. Narrative literature review: From a research question to structured knowledge. *Hoitotiede* **2013**, *25*, 291–301.

40. Scells, H.; Zuccon, G.; Koopman, B. Automatic boolean query refinement for systematic review literature search. In Proceedings of the Web Conference (WebConf '19), San Francisco, CA, USA, 13–17 May 2019; pp. 1646–1656.

41. Bryant, R.E. Graph-based algorithms for boolean function manipulation. *IEEE Trans. Comput.* **1986**, *100*, 677–691. [CrossRef]

42. Peterson, T.; Veisson, M.; Hujala, E.; Härkönen, U.; Sandberg, A.; Johansson, I.; Bakosi, E.K. Professionalism of preschool teachers in Estonia, Finland, Sweden and Hungary. *Eur. Early Child. Educ. Res. J.* **2016**, *24*, 136–156. [CrossRef]

43. Ukkonen-Mikkola, T.; Varpanen, J. Integrated Initial and Continuing Training as a Way of Developing Teachers' and Student Teachers' Professional Agency. *Teach. Teach. Educ.* **2020**, *96*, 103189. [CrossRef]

44. Reid, J. What's Good Enough? Teacher Education and the Practice Challenge. *Aust. Educ. Res.* **2019**, *46*, 715–734. [CrossRef]

45. Husa, S.; Kinos, J. Academisation of Early Childhood Education. *Scand. J. Educ. Res.* **2005**, *49*, 133–151. [CrossRef]

46. Vlasov, J.; Hujala, E. Cross-cultural interpretations of changes in early childhood education in the USA, Russia, and Finland. *Int. J. Early Years Educ.* **2016**, *24*, 309–324. [CrossRef]

47. Kewalramani, S.; Havu-Nuutinen, S. Preschool Teachers' Beliefs and Pedagogical Practices in the Integration of Technology: A Case for Engaging Young Children in Scientific Inquiry. *Eurasia J. Math. Sci. Technol. Educ.* **2019**, *15*, em1784. [CrossRef]

48. Happo, I.; Määttä, K.; Uusiautti, S. How Do Early Childhood Education Teachers Perceive Their Expertise? A Qualitative Study of Child Care Providers in Lapland, Finland. *Early Child. Educ. J.* **2013**, *41*, 273–281. [CrossRef]

49. Björklund, C.; Ahlskog-Björkman, E. Approaches to Teaching in Thematic Work: Early Childhood Teachers' Integration of Mathematics and Art. *Int. J. Early Years Educ.* **2017**, *25*, 98–111. [CrossRef]

50.] Rintakorpi, K.; Reunamo, J. Pedagogical documentation and its relation to everyday activities in early years. *Early Child Dev. Care* **2017**, *187*, 1611–1622. [CrossRef]

51. Salminen, J.; Lerkkanen, M.K.; Poikkeus, A.M.; Pakarinen, E.; Siekkinen, M.; Hännikäinen, M.; Poikonen, P.-L.; Rasku-Puttonen, H. Observed Classroom Quality Profiles of Kindergarten Classrooms in Finland. *Early Educ. Dev.* **2012**, *23*, 654–677. [CrossRef]

52. Syrjämäki, M.; Sajaniemi, N.; Suhonen, E.; Alijoki, A.; Nislin, M. Enhancing peer interaction: An aspect of a high-quality learning environment in Finnish early childhood special education. *Eur. J. Spec. Needs Educ.* **2017**, *32*, 377–390. [CrossRef]

53. Kangas, J.; Ojala, M.; Venninen, T. Children's Self-Regulation in the Context of Participatory Pedagogy in Early Childhood Education. *Early Educ. Dev.* **2015**, *26*, 847–870. [CrossRef]

54. Nislin, M.A.; Sajaniemi, N.K.; Sims, M.; Suhonen, E.; Maldonado Montero, E.F.; Hirvonen, A.; Hyttinen, S. Pedagogical work, stress regulation and work-related well-being among early childhood professionals in integrated special day-care groups. *Eur. J. Spec. Needs Educ.* **2016**, *31*, 27–43. [CrossRef]

55. Hujala, E.; Fonsén, E.; Elo, J. Evaluating the quality of the child care in Finland. *Early Child Dev. Care* **2012**, *182*, 299–314. [CrossRef]

56. Syrjämäki, M.; Philia, P.; Sajaniemi, N. Enhancing peer interaction during guided play in Finnish integrated special groups. *Eur. Early Child. Educ. Res. J.* **2018**, *26*, 418–431. [CrossRef]

57. Bergan, V.; Nylund, M.B.; Midtbø, I.L.; Paulsen, B.H.L. The teacher's role for engagement in foraging and gardening activities in kindergarten. *Environ. Educ. Res.* **2023**, 1–15. [CrossRef]