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Implementation of different teaching approaches in early childhood education practices in Estonia

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ABSTRACT

The aim of this study was to describe the activities of Estonian preschool teachers in the context of different teaching approaches and to compare the assessments of teachers of their own teaching with the assessments of observers of their teaching. For the data collection, the Early Childhood Classroom Observation Measure (ECCOM) and a structured questionnaire were used. A total of 25 teachers participated in the study. The research concluded that teachers mostly applied the principles of a child-centred approach, but that teacher-directed and child-dominated approaches were also present in their teaching practices. Senior teachers scored better than novice teachers on the child-centred education scale, while novice teachers scored higher on the child-dominated scale. By comparing the consensual results of two independent observers and the assessments of the teachers, it became evident that the teachers gave themselves a higher rating in all categories regarding the implementation of child-centred teaching practices, compared to the rating given by the independent observers. Thus, changing the daily practices of teachers involves more than changing the curriculum and other national documents and providing theoretical training on the new approach to learning. It also requires specific guidelines on how to change practice and how to provide feedback for teachers on their work.

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Introduction

It is believed more and more that the foundation for children's future achievements is laid in early childhood (McMullen et al. 2005; OECD 2007). Research demonstrates that participation in early childhood education programmes can have a positive impact on children's academic achievements at school, decrease the risk of class repetition and reduce the need for intervention due to social or special educational reasons (Belfield et al. 2006; Schweinhart 2012; Sylva et al. 2014). Early childhood education may bring a number of benefits to children, parents and society, but the extent of these benefits depends on the quality of what is offered (OECD 2012; Sammons et al. 2014; Sylva et al. 2014; Taggart et al. 2014). Low-quality early childhood education may have a detrimental effect on children (Watamura et al. 2011). What is high-quality early childhood education? Several authors (Brownlee, Berthelsen, and

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Segaran 2009; Dahlberg, Moss, and Pence 2007) have argued that quality is a relative concept, because it depends on the beliefs, interests and values of those defining the quality. Parents, caregivers, children, the wider community and each interest group may have their own understandings of quality. Therefore, the role of the workforce is important in delivering high-quality early childhood education (Campbell-Barr, Georgeson, and Selbie 2015). In the following, we will take a closer look at teachers' beliefs about learning in the field of early childhood education, and which of these beliefs are associated with high-quality early childhood education.

Teaching approaches in the context of early childhood education

In the context of early childhood education, two contradictory understandings of learning are most often described – adult-directed and child-centred. Additionally, some authors have used the terms 'child-initiated education' (Kinos and Pukk 2010) and 'child-dominated education' (Stipek and Byler 2005). *Adult-directed education* relies on behaviouristic learning theories in which academic knowledge, constant repetition and a focus on outcomes rather than processes are valued (Pinnegar and Erickson 2010). Learning is based on detailed work instructions, is thoroughly planned, and its outcomes can be measured by tests. In such an educational approach, the child is viewed as a passive object rather than an active subject. The term *child-centred education* often denotes everything that is not characteristic of adult-directed education (Robertson et al. 2015); thus, this umbrella term comprises a variety of different educational theories and practices. In general, it can be said that child-centred education is characterised by the autonomy of children, freedom of choice, responsibility, integration of activities and the acceptance of the role of adults as supporters of learning (Ryan 2007).

In connection with democratisation, and the enforcement of the UN Convention on the Rights of the Child (1989), it is important to consider the rights of children. Children are viewed more and more as active members of society, able to participate in decisions concerning them (Dunphy 2012; Nolas 2015; Venninen et al. 2014). To specify the meaning of child-centred education, Kinos and Pukk (2010) chose to use the term *child-initiated education* to denote an educational relationship based on the partnership of the child and the adult. Stipek and Byler (2005) also describe a third form of practice – the so-called child-dominated practice – which in terms of content differs considerably from the child-initiated practice described by Kinos and Pukk. In child-initiated education, the adult is an equal partner to children letting children discover the world according to their abilities, but still supporting them by providing an environment that supports development and by creating learning situations (Kinos and Pukk 2010; Robertson et al. 2015). In child-dominated education, the teacher has the role of a passive observer rather than an active participant in learning. The decisions are made mainly by children themselves, and adults intervene in their activities only in case of extreme need (when someone's safety or health is at risk). Such an approach is characterised by the lack of fixed rules and purposeful activities by adults in supporting the development of children (Stipek and Byler 2005).

Several studies have attempted to ascertain which teaching approach best supports the development of children. Research has demonstrated that adult-directed education may give good results in the development of mathematical and/or language skills of children from poorer families (Stipek et al. 1995). At the same time, it has been found that the effect may be

short term, and in the long run adult-directed education is less effective than child-centred education (Golbeck 2002; Marcon 2002). It has also been claimed that the best outcomes for children derive from a combination of child-centred and adult-directed teaching approaches (Eurydice 2009). According to Lindon (2010, 4), experiences originating from children are not better than those originating from adults when the activities organised by adults are of higher quality than those directed by children. The British EPPE (*Effective Provision of Pre-school Education*) study (Siraj-Blatchford et al. 2003) revealed that the activities of teachers have a positive impact on children's experiences if adult- and child-initiated learning opportunities are in balance. Adults should create opportunities for child-initiated play as well as for adult-initiated group work, because both develop children's learning. The US committee *Eager to Learn* (Bowman, Donovan, and Burns 2000, 11) also favours a combination of independent and teacher-directed learning.

Our study is based on the triple division by Stipek and Byler (2005) where adult-directed and child-dominated practice form the end points of a continuum, and child-centred practice denotes the balanced combination of these. However, it does not mean that there is an equal amount of adult-directed and child-dominated activities during the day. It rather means that every activity is based on partnership relations between adults and children, i.e. both adults and children are active participants in the learning process who can express their opinions and make choices. In other words, child-centredness means that with the help of careful direction by the adult, children can actively discover the world, test and, if necessary, re-define their understanding of the world. Teachers actively guide and support children's learning efforts and the development of their social skills. Generally, we do not recommend either situations where adults provide children with ready-made truths (characteristic of adult-directed practice), or leave the child alone in the learning process (characteristic of child-dominated practice). However, we acknowledge that during the day there might be situations where either adult-directed practice (e.g. dangerous situations that require fast and specific action) or child-dominated practice (e.g. children's free, unsupervised play) is the most appropriate practice. Still, we assume that such situations are rather rare. By free, unsupervised play we mean play where conditions have not been created to develop the play further – tools are missing or the adult does not encourage children to take their game to a higher level. The latter does not require the adult to constantly interfere in children's play, but it means offering new ideas, if necessary and providing materials and tools.

Estonian context

Up to the end of the 1980s, Eastern European countries were a part of the communist bloc led by the Soviet Union. Education in these countries was almost entirely regulated by central governments (Cerych 1999). Educational work in the Soviet-type preschool establishments was based on centralised programmes, and was at best only moderately adapted to local cultural contexts (Tuul, Ugaste, and Mikser 2011). Activities in the preschools were mainly adult-driven. After regaining independence in 1991, Estonia started to reform the educational system with the aim of establishing democratic principles in education. In 1999, the Framework Curriculum of Early Childhood Education (Alushariduse raamõppekava 1999) was approved that regulated preschool education. This replaced the earlier detailed and prescriptive programme that previously served as the basis of pedagogical practice. Currently, education in Estonian preschools is regulated by the National Curriculum of Preschool Childcare

Institution (Koolieelse lasteasutuse riiklik õppekava 2008), which establishes the principles of child-centred education.

Thus, the national curriculum supports child-centred teaching practice, but several studies (Õun et al. 2010, Tuul et al. 2015; Ugaste et al. 2014) have demonstrated that although many teachers have in their own view accepted the principles of child-centred education, there are also those teachers who prefer having detailed instructions and a leadership role for the teacher to making decisions as an independent professional and to having partnership relationships with children. The findings of the study by Ugaste et al. (2014) showed that teachers' views about learning are related to teachers' background factors (language of study in the preschool, the level of pedagogical evaluation of the teacher, the year of qualification).

At the same time, international studies have highlighted the mismatch between teachers' beliefs and activities (Muijs 2006; Parker and Neuharth-Pritchett 2006; Rentzou and Sakellariou 2011). Ruto-Korir (2010) revealed that teachers expressed their support for child-centred education, but their activities were primarily teacher-centred. Niikko and Havu-Nuutinen (2009) showed that teachers' objectives regarding preschool education were in line with the national curriculum, but in practice these did not match the activities the teachers carried out, and the beliefs of teachers about preschool education were traditional. Based on this, the aim of our study was to describe the activities of preschool teachers in the context of different teaching approaches (teacher-directed, child-centred and child-dominated) and to compare teachers' own assessments of their activities with the assessments of observers. We attempted to find answers to the following questions: which approaches to teaching do Estonian preschool teachers apply? Do the assessments of their own activities differ between novice teachers (less than 3 years of teaching; first level of qualification) and senior teachers (more than 15 years of teaching; third level of qualification) and in which aspects? In which aspects do the assessments of teachers differ from the assessments of observers?

Method

First, the current study involved observation based on the Early Childhood Classroom Observation Measure (ECCOM) scale developed by Stipek and Byler (2004, 2005), which has been used in studies in the US as well as in Estonia and Finland (Lerkkanen et al. 2012). The ECCOM scale has been developed for educators involved with 4–7-year-old children. The measurement tool consists of 47 statements, of which 15 help to measure adult-directed activities, 17 child-centred activities and 15 child-dominated activities in a preschool group. Every statement is measured on the following scale: 'described activities/practices appear very seldom (1)' – 'described activities/practices prevail (5)'. According to the study by Lerkkanen et al. (2012), ECCOM is a reliable and valid tool for measuring approaches to learning in preschools in Estonia and Finland.

The second method used was a written questionnaire created by Kimer on the basis of the ECCOM scale. The questionnaire included 46 questions or statements on the Likert scale, measuring either frequency (1-never, 5-always) or agreement (1-do not agree, 5-agree). The aim of the questionnaire was to ascertain teachers' own assessments of the relationships in the group and the educational activities offered, in order to determine whether and how the assessments of the preschool teachers themselves differ from the evaluations given by independent observers.

Table 1. The correlation coefficients between the observers regarding the ECCOM scales (Pearson's r).

	Child-centred	Teacher-directed	Child-dominated
Total score	0.980	0.954	0.978
Supervision	0.961	0.952	0.930
Social environment	0.960	0.855	0.940
Instructions	0.968	0.929	0.978

Sample

The sample of the study consisted of 25 preschool teachers from 15 preschools in Tallinn and in Harju county. The sample was based on the principle that both novice teachers (1st level of qualification) and senior teachers (third level of qualification) would be represented. All teachers participating in the study were female. The age of the teachers varied between 23 and 62 years, and the average age was 37.6 years. There were 14 senior teachers in the sample (11 of these teachers had higher education in pedagogy, 3 had another kind of qualification) whose work experience ranged from 6 to 44 years, being on average 23.5 years. The remaining 11 research participants were novice teachers (6 of them had higher education in pedagogy, 5 had another kind of qualification), and their work experience ranged from 0.5 to 2.5 years, the average being 1.7 years. The observed preschool groups had 23 children on average. The number varied from 14 to 28 children. The average number of children in the groups during observations was 15, the minimum being 9 children and the maximum 22 children. In four groups the age of children was 4–5, in nine groups 5–6 and in twelve groups 6–7 years. In all the observed groups there was a teacher who had professional teacher education and a teaching assistant without a professional qualification. Prior to the study, the participating teachers were asked for permission to conduct the study, and the aims, content and the principles of anonymity were explained.

Procedure

The observations were conducted and the questionnaire was administered in preschools in Tallinn and Harju county during the period February–May 2014. Before the study the observers were trained in evaluation of video observations. There were four observers, three of whom had higher education in preschool teaching (one of them had a PhD, one a master's degree and one a bachelor's degree). One of the observers had higher education in another specialist area. Two of the observers worked as lecturers in the department of preschool education at Tallinn University, where the third observer was studying on the master's programme. Both lecturers who participated in the study had experience of working at a preschool: one of them had 7 years of experience and the other had 15 years of experience. The third observer had completed 16 weeks of practice at a preschool. The fourth observer lacked experience of working at a preschool. In all the observed groups, two observers were simultaneously present. The whole observation took place in the morning and lasted 3 h on average. The arrival of children in the preschool group was observed as well as the free play time, the starting of the day and the educational activities. After the end of the observation, observers filled in an individual assessment form. For that they had to consider everything they had seen during the observation and average across the day when assigning ratings. The scales of the three different practices (teacher-directed, child-centred and child-dominated)

Table 2. Assessment of teachers' activities on the basis of the ECCOM scale.

	Child-centred (SD)	Teacher-directed (SD)	Child-dominated (SD)
Total score	3.15 (1.01)	2.70 (1.06)	2.27 (1.06)
I Supervision	3.18 (0.99)	2.78 (1.01	1.91 (0.95)
Disciplinary strategies	3.44 (1.19)	2.40 (1.24)	2.08 (1.41)
Group rules	3.24 (1.17)	2.52 (1.23)	1.96 (1.37)
Children's responsibility	3.12 (1.13)	3.08 (1.08)	1.56 (0.82)
Choice of activities	2.92 (1.00)	3.12 (1.24)	2.04 (1.02)
II Social environment	3.23 (1.02)	2.65 (1.15)	2.63 (1.11)
Teachers' warm/caring attitude	3.88 (0.93)		
The connection with children's experience	3.40 (1.16)		
Individualisation of learning	3.16 (1.25)	2.60 (1.35)	2.08 (1.15)
Involvement of children	3.12 (1.24)	2.28 (1.21)	2.44 (1.45)
Supporting social skills	2.96 (1.31)	2.60 (1.32)	3.00 (1.26)
Supporting communication skills	2.84 (1.11)	3.12 (1.48)	3.00 (1.38)
III Instructions	2.99 (1.15)	2.66 (1.14)	2.28 (1.32)
Integration of learning activities	3.28 (1.14)	2.12 (1.20)	2.20 (1.47)
The teaching of concepts	3.12 (1.33)	2.80 (1.32)	2.28 (1.46)
Learning standards	2.80 (1.47)	2.44 (1.45)	2.08 (1.29)
Learning in the form of conversation	2.76 (1.23)	3.28 (1.24)	2.56 (1.45)

were intended to be conceptually distinct and the occurrence of each of these practices had to be rated independently of the others. After completing the individual assessment form, together a consensus-based assessment form was filled in to ensure the reliability of results. The written questionnaire was completed by the teachers within 2 weeks after the observation. The data from the observations and questionnaires were analysed with the statistical programme SPPS Statistic 19. The statistical significance of the difference in the responses of the two groups (novice and senior teachers) was measured by the student *t*-test ($p \leq 0.05$). In grouping various attributes, the reliability coefficient Cronbach's alpha was used. The evaluations of the observers were assessed by the correlation coefficient Pearson's *r*. Due to the low incidence of reading and writing and mathematics (these were observed only in 40 and 32% of observations, respectively), the data collected about these activities are not included in the data analysis.

There was a strong positive correlation between the assessments of the observers in all teaching practices and areas (Table 1). The reliability in all three areas was very high regarding the child-centred teaching practice (Cronbach's alpha between 0.905 and 0.935). The reliability in the case of the adult-directed and child-dominated teaching practice was a little lower (Cronbach's alpha between 0.814 and 0.947).

Results

The use of different teaching practices in the preschool groups in the assessments of the observers

The use of different teaching practices was observed on the basis of the ECCOM scale. In the following, the results of the observations are presented, based on the results of the consensual assessment form of two observers in three areas: 'Supervision', 'Social environment' and 'Instructions'. The summarised results of the observation are presented in Table 2, and the comparison between the results of novice teachers and senior teachers in Table 3. In comparing the total scores of different scales (Table 2), it appeared that most often the observed teachers used child-centred activities in their practice,

Table 3. The comparison between novice teachers and senior teachers.

		Child-centred (SD)	Teacher-directed (SD)	Child-dominated (SD)
Total score	Novice teachers	2.94 (0.91)	2.64 (1.05)	2.73 (0.96)*
	Senior teachers	3.31 (1.10)	2.73 (1.11)	1.91 (1.03)*
Supervision	Novice teachers	3.05 (0.95)	2.80 (1.02)	2.25 (0.89)
	Senior teachers	3.29 (1.04)	2.77 (1.04)	1.64 (0.93)
Social environment	Novice teachers	3.06 (0.86)	2.52 (1.12)	3.05 (1.12)
	Senior teachers	3.35 (1.14)	2.75 (1.21)	2.30 (1.02)
Instructions	Novice teachers	2.64 (1.08)	2.61 (1.14)	2.91 (1.17)*
	Senior teachers	3.27 (1.17)	2.70 (1.18)	1.79 (1.25)*

*$p \leq 0.05$.

followed by adult-directed and child-dominated activities. Even though the elements of child-centred practice were observed the most in teachers' work, the relatively low average assessment ($M = 3.15$) suggests that this practice was observed only during a certain period of time (40–60% of time). Next we will examine the assessments of every pedagogical practice by the observed areas to learn about the factors that have affected the summarised assessment.

Child-centred practice

Child-centred practice appeared most often in the area of creating a social environment and most seldom in the area of instructions (see Table 2). In the area 'Social environment' teachers got the highest rating for being warm and caring. Although the teachers received the highest average rating of the whole observation ($M = 3.88$) here, it cannot be considered a good result because the average rating of 4 means that teachers' warmth and caring was observed only during approximately 60% of the observed time, even though, ideally, teachers should always be sincere and attentive to children. The lowest ratings in the area of social environment were given in relation to supporting the communication and social skills of children. The low average score is related to teachers providing few opportunities for children to work in small groups and only seldom encouraging children to talk and develop their own thoughts.

In the area 'Supervision' the teachers' activities were rated the highest with regard to disciplinary strategies and the lowest with regard to choice of activities (Table 2). The average rating of disciplinary strategies ($M = 3.44$) indicates that in approximately half of disciplinary cases teachers used positive disciplinary techniques – short-term and peaceful conflict solutions, explanations of disciplinary measures and consistency in applying these measures. The low average score of the choice of activities reflected the fact that in several preschool groups, the activities were structured by the teachers, followed a fixed order and all children undertook the same tasks.

In the area 'Instructions' the highest average rating was given to integrating learning activities and the lowest rating to learning in the form of conversation (Table 2). The study revealed that approximately half of the learning activities were integrated, even though according to the National Curriculum of Preschool Childcare Institutions (Koolieelse 2008), the majority of activities should be integrated. The conversations usually took place in big groups, and the teachers dominated the conversations. The teachers listened to children attentively, but in several cases did not allow the children to finish expressing their thoughts.

Adult-directed practice

Adult-directed practice appeared most often in the area of 'Supervision' and a little less in the areas of 'Social environment' and 'Instructions'. In the area of 'Supervision' the highest score was received in the choice of activities and the lowest score in the use of disciplinary strategies. These results are in line with the assessments given to child-centred practice. The average scores suggest that in more than 40% of cases the teachers took a leadership role and made decisions. However, negative disciplinary strategies (applying rigid or inconsistent measures without explanation or measures which disturbed learning activities) were used seldom.

In the area 'Social environment', supporting communication skills was assessed most highly and the participation of children was scored lowest. The rating given for supporting communication skills refers to the preschool classroom where more than 40% of conversations are led by the teacher, offering children minimum opportunities to speak in front of their classmates. The low rating for the participation of children shows that teachers rarely let children learn things by heart or repeat things mechanically.

In the area 'Instructions', the teachers got the lowest score for integrating learning activities. The low score indicates that academic activities are usually not separate, but related to one another. The highest score was given to learning in the form of conversation. The high score of learning in the form of conversation in relation to adult-directed learning describes the teachers as the main source of knowledge who take the dominant role in conversations, interrupt children's talks and impose adult-driven solutions. In our study observers identified this kind of behaviour in the classrooms in more than 40% of cases.

Child-dominated practice

Child-dominated practice was observed the most in the area of creating social environment and the least in management (see Table 2). The low score of the area 'Supervision' indicates that child-dominated practice appeared in this area very seldom. The observed groups usually occupied a structured environment, and classroom rules and teachers did not allow situations to get out of hand before intervening.

In the area 'Instruction', the highest score was given to learning in the form of conversation and the lowest to defining of learning standards. The high score in learning in the form of conversation refers to a group where the teacher does not have educational conversations with children or the topics of conversations are vague and without a clear focus. This kind of practice was seen in approximately one-third of the observations. The low score on learning standards shows that the teachers consider children responsible for completing their tasks.

In the area 'Social environment' the highest score in applying child-dominated practice was given to supporting children's social and communication skills ($M = 3.0$) and the lowest score to the individualisation of learning ($M = 2.08$). The average score of 3 given to supporting children's social and communication skills indicates that in approximately 40% of observations it was noted that the teacher provided opportunities for children to develop their social skills, but did not offer her support. The teacher did not involve children in mutual conversation and did not encourage children to communicate among themselves.

The practice of novice and senior teachers

The current study revealed that in using adult-directed practice there were no notable differences between novice and senior teachers (Table 3). With regard to child-centred practice,

Table 4. The comparison between the teachers' assessments and the observers' assessments.

Child-centred education	Observation scores (SD)	Scores from the questionnaire (SD)	*t*-value	*p*
Total score	3.15 (1.01)	4.27 (0.21)	−6.020	0.000
I Supervision	3.18 (0.99)	4.20 (0.31)	5.346	0.000
Group rules	3.24 (1.17)	4.80 (0.35)	−6.636	0.000
Children's responsibility	3.12 (1.13)	4.17 (0.39)	−4.207	0.000
Disciplinary strategies	3.44 (1.19)	4.44 (0.71)	−3.876	0.001
Choice of activities	2.92 (1.00)	3.40 (0.79)	−2.267	0.033
II Social environment	3.23 (1.02)	4.24 (0.25)	−5.308	0.000
Supporting communication skills	2.84 (1.11)	4.40 (0.397)	−7.317	0.000
Individualising learning activities	3.16 (1.25)	4.58 (0.40)	−6.164	0.000
Involvement of children	3.12 (1.24)	4.32 (0.49)	−4.584	0.000
Supporting social skills	2.96 (1.31)	3.64 (0.56)	−2.587	0.016
III Instructions	2.99 (1.15)	4.39 (0.29)	−6.386	0.000
Learning standards	2.80 (1.47)	4.49 (0.27)	−6.286	0.000
Learning in the form of conversation	2.76 (1.23)	4.26 (0.52)	−5.603	0.000
The teaching of concepts	3.12 (1.33)	4.43 (0.47)	−5.193	0.000
Integration of learning	3.28 (1.14)	4.36 (0.49)	−4.688	0.000

Note: $N = 25$; SD – standard deviation; *t* – *t*-values; *p* – probability.

the average results of the senior teachers were noticeably higher in all fields compared to those of the novice teachers (Table 3), but these differences were not statistically significant. Statistically significant differences were found in the novice and senior teachers' usage of child-dominated practice. It turned out that the novice teachers use child-dominated practice more frequently than the senior teachers.

Teachers' assessments of the use of child-centred teaching practices in their own work

A written questionnaire was used to elicit teachers' own assessments of the use of child-centred teaching practices in their daily work. As with the observations, the questionnaire focused on the three areas of management, social environment and instructions (see scores from the questionnaire in Table 4). The scores indicate that with regard to child-centred teaching, the teachers assessed their own activities very highly in all three areas. The teachers claimed that they almost always give feedback to children regarding their work and encourage children to choose tasks that present a challenge. In their opinion, the learning activities are almost always connected with children's earlier experiences, and knowledge and new concepts/skills are connected with broader aims. It appeared that in the teachers' own view, they often use illustrative materials, and their activities are planned with the aim of deepening children's understanding. The teachers also claimed that children participate equally to teachers in conversations concerning topics being studied, and they often encourage children to ask questions and respond to their groupmates' remarks.

In the area 'Supervision' the teachers gave high scores to their own activities regarding the compilation of group rules and the following of these rules (Table 4). In the teachers' view, their implementation of group rules conforms almost entirely to the principles of child-centred practice. The teachers gave the lowest score to their activities in offering choices to children. It appeared that in their own opinion, the teachers involve children in making choices about activities or the preferred ways or time of performing tasks only sometimes.

In the area of social environment, the teachers, in their own assessment, follow the principles of child-centred practice the most in the individualisation of learning activities. (Table 4). Almost all the teachers agreed that they recognise individual strengths of all children and praise children for their efforts and good outcomes (Table 4). Among the other factors in this area, the teachers assessed their activities in supporting children's social skills considerably lower. Under the *supporting of social skills*, the teachers were asked to assess the frequency of activities taking place in small groups. It appeared that the study participants included both those teachers who do activities in small groups sometimes, but also those who do such activities very often.

Comparison between novice teachers and senior teachers

There was a considerable difference in three questions concerning novice teachers' and senior teachers' views of their own work. A statistically significant difference ($t = -3.871$; $p = 0.001$) appeared in the involvement of children in the choice of activities. The scores indicate that the senior teachers involve children considerably more in the choice of activities ($M = 3.79$) than novice teachers ($M = 2.91$). A noteworthy, although not statistically significant, difference appeared in the assessments of the involvement of children in the preparation of learning activities and in the purposeful use of study materials. It turned out that in their own view the senior teachers involve children in the preparation of learning activities more frequently ($M = 3.79$) than the novice teachers ($M = 3.27$), and the novice teachers agreed more than the senior teachers with the statement that children use study materials purposefully ($M = 4.55$ and $M = 4.00$, respectively).

The comparison between the teachers' assessments and the observers' assessments

Teachers' assessments of their daily teaching practices were higher than those of the observers in all areas of the ECCOM scale, and this difference is statistically significant (Table 4). However, since the teachers' responses did not cover all the activities observed and assessed with the ECCOM scale, the results should be treated critically.

The biggest differences between the assessments of the teachers and the observers (more than 1.5 points on the five-point scale) appeared in supporting children's communication skills, following the group's rules and in learning standards. The study revealed that in the teachers' opinion, they encourage children to converse and develop their thoughts, let children speak in front of their groupmates and communicate with each other in learning activities much more than was visible in the observations. According to observers, the group's rules were followed consistently and flexibly less frequently than the teachers claimed. Also, the observers did not notice as much as the teachers reported that the teachers encourage children to choose tasks presenting a challenge, that tasks are adjusted according to children's individual skills and that all children are praised for their efforts and good outcomes.

Discussion

Child-centred education is understood as a pedagogical approach in which the child is an active learner and in which the all-round development of the child stands in the centre

(Bredekamp and Copple 1997). Teachers are viewed as people guiding learning and supporting the social and intellectual development of children. (Eurydice 2009; 138–139). In Estonia, discussions about child-centred education as the recommended practice began in 1991 in connection with the democratisation process accompanying the restoration of independence of Estonia. It was found that the adult-directed practice that had been used for a long time did not promote the renewed aim – to educate active citizens who follow democratic principles and are able to take the initiative, make decisions and take responsibility. The principles of child-centred education were reflected in the framework curriculum of early childhood education, introduced in 1999, and the national curriculum of preschool childcare institutions, in effect since 2008. Despite the advocacy of child-centred education in national curricula and in professional development, various national studies (Õun et al. 2010; Tuul et al. 2015; Ugaste et al. 2014) have demonstrated that the transition from adult-directed practice to child-centred practice has not progressed as expected. There are still teachers at preschools who prefer having detailed instructions to having pedagogical freedom and who underestimate the role of the child and the child's peers in learning. In order to find solutions to improve the situation, the aim of this study was to describe the activities of the preschool teachers in the context of different teaching approaches (teacher-directed, child-centred and child-dominated), and to compare the assessments of teachers with the assessments given to the teachers' activities by external observers.

The findings of the study reveal that although the observers identified more child-centred practice than adult-directed or child-dominated practice, the use of child-centred practice was modest, being visible only in approximately half of the observed activities. Adult-directed practice dominated with regard to providing choices for children, supporting their communication skills and learning in the form of conversation. This indicates that many teachers have not yet discarded their dominating role. They make a variety of choices for children and take the leading role in conversations as well as in problem-solving, leaving children in the role of passive receivers. The study by Maynard and Chicken (2010) helps to explain the background of this phenomenon. Their study revealed that teachers find it hard to change their own beliefs and to share the leadership role with children when society values an outcome-driven orientation. Although the documents regulating preschool education in Estonia outline child-centred education as the ideal, the National Curriculum for Preschool Childcare Institutions also prescribes required skills of 6–7-year-olds and expected outcomes in seven areas: natural science, language and speech, Estonian as the second language, mathematics, art, music and movement. It is assumed that by the end of their time in preschool all children will have achieved these outcomes. Since many teachers lack earlier experience in applying child-centred practice, they find support in the adult-directed pedagogy which they are familiar with and which they have experienced as helping to achieve certain knowledge and skills. However, in many cases teachers do not realise that the content of the expected outcome has changed and that by applying teaching methods used earlier the outcome might not be achievable.

In comparing the activities of the novice teachers and the senior teachers in the classroom, it appeared that the senior teachers used child-centred practice more than the novice teachers, but these differences were not statistically significant. In the application of adult-directed practice there were no notable differences between the two groups of teacher, but child-dominated teaching practices appeared more often in the activities of the novice teachers than in those of the senior teachers. The scores of the novice teachers were higher

in all subscales of child-dominated practice and the difference between the total score of the two teachers' groups was statistically significant ($p = 0.05$). It appeared also in the study by Lerkkanen et al. (2012) that child-dominated practices were more common in the activities of teachers with less experience. The authors found that less experienced teachers who used child-dominated teaching practices were not consistent in their requirements and behaviour. The findings of the study by Ugaste et al. (2014) revealed that novice teachers consider the child's own initiative and active participation in learning activities important. The current study indicated, however, that by trying to avoid adult-directed teaching practices, the novice teachers tend to apply child-dominated teaching practice too much. Due to their inexperience, they are not able to cater for the whole group, and when they focus on a small group of children, the others may miss the attention they need. Kalliala's (2014) research showed that children's need for attention differs from one child to the next. In a group there may be children who need little guidance, but at the same time there may be children who are withdrawn and in need of stimulation. Child-dominated teaching practice may be suitable for the first type of children, but it can also inhibit the latter group's development. The preponderance of child-dominated teaching practices could be avoided by a specific model of activities for novice teachers and teachers who lack pedagogical higher education. Since younger teachers have problems to ensure discipline and they feel less sure about their competencies than their more experienced colleagues (Loogma et al. 2009), such a model of activities would help the teachers to gain confidence and knowledge in their methods for supporting children's development.

Drawing on the findings of the study, it may be claimed that senior teachers as well as novice teachers may need more effective help in changing their approach to learning. The study revealed that even though the observers noticed child-centred practice in only half of the observed activities, in most cases both the novice teachers and senior teachers assess themselves as, using child-centred practice. This kind of contradiction between the teachers' beliefs and their observed activities has been found in several international studies (Ruto-Korir 2010; Niikko and Havu-Nuutinen 2009). The findings of the study are also in line with the findings of earlier studies (Uibu 2010), according to which teachers in their own assessments apply primarily the principles of child-centred education. When teachers believe that their practical work is in accordance with the new approach to learning, they do not see the need to change their practice. Thus, in order to change the teachers' practice, in addition to theoretical training and discussions, teachers should be offered opportunities to observe and analyse other teachers' work and to receive feedback on their own work. By offering teachers support in acknowledging the beliefs that guide their pedagogical practice, and by offering them the opportunity to watch their own practical work in videotaped episodes, we provide teachers with the opportunity to notice and analyse the conflict between their own theories and practice and to become aware of the limitations based on their earlier beliefs that make it hard to go along with innovations (Wood and Bennett 2000). Thus, as Maynard and Chicken (2010) have found, often the transition from adult-driven teaching practice to child-centred teaching practice is hindered by the teachers' attempt to fit their old beliefs into a new form. The change of the form, however, does not bring about a change in the content of teaching. Therefore it is necessary to offer teachers opportunities to assess their own work and get feedback on their work. It is also essential to keep in mind that conclusions about what is happening in the preschool classroom should not be based on the views of teachers only, because their understanding might not correspond to their practice (Muijs 2006, 7).

Limitations

In assessing the reliability of the study results, several aspects need to be highlighted. The difference between the teachers' and the observers' assessments might be due to the fact that the teachers' questionnaire did not cover all the descriptions of the ECCOM scale, and the assessment of the observers was based only on information gathered during one observation. The reliability of the data gathered by observation is limited, in addition to the limited observation period, by the fact that the presence of observers may disturb and change the natural cause of events (Muijs 2006). The teachers assessed the frequency of applying different activities in their daily work with the help of a structured questionnaire, and the observers assessed the activities based on the criteria in the assessment form and on what they observed in the classroom. Therefore, the results depend on the objectivity of the teachers' and observers' assessments, and the interpretations by teachers and researchers of the terms used in the study (Speer 2005). To make any broader conclusions based on the research findings, a similar study should be conducted with a larger sample. The results of the observations of 25 teachers enable us to highlight some differences, but do not permit any broad conclusions about preschools in Estonia.

Disclosure statement

No potential conflict of interest was reported by the authors.

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