



JÖNKÖPING UNIVERSITY

*School of Education and  
Communication*

Doctoral Thesis

# **Everyday Life in Preschool**

– Swedish and International Approaches

Frida Åström

Jönköping University  
School of Education and Communication  
Dissertation Series No. 042 • 2023

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“The world cannot be understood without numbers, and it cannot be understood by numbers alone” (Hans Rosling)

# Abstract

*Background:* The ultimate outcome of inclusive Early Childhood Education and Care (ECEC), with the focus on everyday life in preschool in this dissertation, is child participation, i.e., being there and being engaged while being there. Little is known about the individual variation in child participation in preschool, and few studies have examined how the practices of preschool vary both in an international and national Swedish perspective, and what this variation may mean for child participation.

*Aim:* This dissertation aims to examine variations in preschool practices and environments within an international and national Swedish perspective, and to describe how these variations relate to participation in those environments for children. The findings will be discussed in relation to preschool quality, inclusive education, and the Swedish preschool for all children.

*Method:* Behavior count systematic observations were used to describe between- and within country variations in children's and preschool teachers' activities, behaviors, and environments in preschools in Sweden ( $n = 78$  preschool units), Portugal ( $n = 42$  classrooms), and the U.S. ( $n = 168$  classrooms), and to provide comprehensive descriptions of activities in Swedish preschools ( $n = 78$  preschool units). Behavior counts were also used to explore variations in observed participation patterns (based on level of engagement, associative/cooperative interactions, pretend play, and proximity to a small group including a teacher) between children in Swedish preschool free play ( $n = 453$  children).

*Results:* The largest variation across the countries concerned the dominant activity setting. Free play was the main activity setting for Swedish preschools, while teacher-led whole group was dominant in Portugal and the U.S. Swedish preschoolers spent much time outdoors and had a relatively high proportion of associative child-child interactions. Across the countries, children were less engaged in their dominant activity setting. Child engagement was among the highest in teacher-led small-groups, but those occurred infrequently. For several preschool practices, the within-country variance was high in all three countries.

Swedish preschoolers focused on various contents, where construction, art, music, and less sophisticated play in small groups of children was most common, followed by pretend play. Teachers in the Swedish preschools displayed a large variety of teacher tasks where managing, i.e., organizing the child group, was most frequent.

Two groups of children displayed low-to-very-low observed participation in Swedish preschool free play. Second language learners and children from preschool units including several second language learners tended to reveal lower levels of observed participation, but not children with special education needs. Children with the lowest observed participation levels appeared unseen by preschool teachers.

*Conclusions:* The results reflect that cultural ideas and values are related to preschool practices on several system levels. The practices in Sweden reflect a social pedagogy tradition, whereas practices in Portugal and the U.S. reflect an early education tradition. A culture's ideas and values also seem to be reflected in instruments measuring preschool practices and quality and demands caution when selecting measures. What children participate in, and their engagement when being there both seem influenced and defined by the activity setting. Changing activity settings more frequently may increase children's engagement levels. In Swedish preschools, proximal processes for children's participation may concern child-child interactions, as much as teacher-child interactions. In free play, some children do not get the support they need to participate in activities despite inclusive policies and the Swedish preschool curriculum emphasizing a "preschool for all children".

*Keywords:* Early Childhood Education and Care (ECEC), preschool practices, participation, engagement, inclusion, environment, free play, systematic observation, behavior count, person-oriented, quality

# Original Papers

This dissertation is based on the following articles enclosed as appendices and referred to by their Roman numerals in the text.

## Article I

Coelho, V., Åström, F., Nesbitt, K., Sjöman, M., Farran, D., Björck-Åkesson, E., Christopher, C., Granlund, M., Almqvist, L., Grande, C., & Pinto, A. I. (2021). Preschool practices in Sweden, Portugal, and the United States. *Early Childhood Research Quarterly*, 55, 79–96. <https://doi.org/10.1016/j.ecresq.2020.11.004>

## Article II

Åström, F., Björck-Åkesson, E., Sjöman, M., & Granlund, M. (2022). Everyday environments and activities of children and teachers in Swedish preschools. *Early Child Development and Care*, 192(2), 187-202. <https://doi.org/10.1080/03004430.2020.1754209>

## Article III

Åström, F., & Almqvist, L. (2022). Patterns of observed child participation and proximity to a small group including teachers in Swedish preschool free play. *Frontiers in Education*, 7. <https://doi.org/10.3389/educ.2022.982837>

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# 1. Definitions

## *Key concepts in this dissertation*

Activity	Behaviors and events during the preschool day, e.g., playing, talking
Activity setting	How the children are organized in different settings (e.g., whole group, small group, free play)
Being there	Physical attendance
Early Childhood Education and Care	Any non-parental childcare and early education that occurs before start of primary school, including early childhood education, pre-primary education, and the integration of education and care.
Engagement	The internal state of individuals involving focus or effort
Environment	Broad physical and social structures, such as layout and possibilities for communicative interaction
Exosystem	Environments that the child is not directly or rarely taking part in, e.g., the parents' workplaces, social services, preschool management, and health care.

Free play	Activity setting where children have many choices to pursue the activities they prefer
Inclusion	The process of adapting the environments and practices to the needs and backgrounds of all children
Involvement	The experience of participation while being there, including engagement
Macrosystem	Cultural ideas, attitudes, and structures in society
Mesosystem	Interactions between environments in the microsystem
Microsystem	The environments where the child spends most of his/her time, such as the home, preschool/school
Participation	Being there and being engaged while being there
Preschool practices	Everyday activities, interactions, and behaviors of children and teachers
Proximal processes	The time children spend interacting with persons, objects, and activities in a manner that over time becomes increasingly more complex
Special Educational Need	Support additional to what is provided to all children to function in preschool

## 2. Abbreviations

ECEC	Early Childhood Education and Care
fPRC	The family of Participation-Related Constructs
PEPI	Participation and Engagement in Preschool International
PPCT	Process-Person-Context-Time
SEN	Special Educational Need
SLL	Second Language Learner
TUTI	Early Detection Early Intervention

### 3. Preface

When I was a child, I loved the Swedish TV series “*Vetenskapens Värld*” [“The World of Science”] and my dream career was to be an archaeologist. My mother, however, believed that I would become an author. As I grew up, I sometimes wondered where these interests had gone. I was now more interested in psychology. I therefore became happy when I, at the university, read the book *Man’s Search for Meaning* by Viktor Frankl, in which he described psychology as the archeology of the soul.

After a couple of years working with involuntary addiction treatment for adult males, I realized that if there is the slightest chance of preventing some of the problems experienced by these vulnerable individuals, it would be worth it. I decided to continue my studies. Today, I remain convinced of the importance of preventive efforts and investing in our children. And I have just authored a book.

## 4. Introduction

Around the world, an increasing number of young children attend Early Childhood Education and Care (ECEC) on a regular basis (OECD, 2018). As such, ECEC is one of the most important everyday environments for young children's health, development, and learning, together with the home. *ECEC* is a broad concept and refers to any non-parental childcare and early education that occurs before start of primary school (Melhuish et al., 2015). It includes early childhood education, pre-primary education, and the integration of education and care common in the Nordic countries. This dissertation will focus on the everyday life in ECEC in an international and national Swedish perspective. As the everyday life of ECEC is commonly referred to as preschool, the term preschool will be used when discussing practices and environmental characteristics of ECEC. The term ECEC will be used in relation to policy and broad structural features of ECEC.

International policies advocate that ECEC, and education at all levels, should become more inclusive, by welcoming all children, adapting the environments and practices to children with different abilities and backgrounds, and decreasing the use of segregated solutions. Inclusion in ECEC is seen as a means to provide a good start in life for all children. A key outcome of inclusive ECEC is children's participation in their everyday activities (Bartolo et al., 2016; DEC/NAEYC, 2009; Maxwell et al., 2018; Odom et al., 2011). *Participation* is defined as children's attendance in everyday activities and their engagement while being there (Imms et al., 2017). Children who participate in stimulating activities everyday feel better, and learn more, both in the short and long term (Aydogan, 2012). Children's participation is influenced both by child factors and environmental factors (Imms et al., 2017), and any meaningful assessment of participation needs to consider the child's context.

There is reason to believe that preschool practices are highly variable viewed from an international perspective. In this dissertation, *preschool practices* include how activities are arranged for the children, what content children and teachers focus their time on, and the interactions in preschool between children and teachers. The goals and structures of ECEC vary across countries

and settings, with one distinction being made between countries following an early education tradition with the general goal of school readiness, and countries following a social pedagogy tradition, with the overall goal of holistic learning and democracy (Einarsdottir et al., 2015; Kuusisto & Garvis, 2020; OECD, 2006; Vallberg Roth, 2013). Differences in what young children are expected to know and be engaged in are most likely reflected in their daily experiences (OECD, 2006; Rosholm et al., 2021). However, differences in structures across countries and how children and teachers spend their time in preschool, and what activities they are engaged in during an ordinary day, i.e., the characteristics important for participation, learning, and development, are not well known.

Research on preschool practices have mainly focused on quality which is increasingly emphasized in ECEC policy and research (OECD, 2018; 2021). Research has shown that the impact of ECEC on children's development and learning is conditional on quality (Rosholm et al., 2021), and higher quality promotes children's learning in terms of literacy, language, numeracy, and social development (Davies et al., 2021; Dietrichson et al., 2020; Melhuish, 2015; Ulferts et al., 2019; von Suchodoletz et al., 2023). However, quality in ECEC is debated and current quality instruments appear to disregard preschool practices considered important for children's health, development, and learning (Garvis et al., 2018; Pastori & Pagani, 2017; Slot et al., 2016). Quality instruments also tend to focus on performance in selected practices, and not on how often or how much practices occur. Explorative research is needed on the variation in how children and teachers spend their time in preschool within an international perspective and national Swedish perspective. Behavior count observations appear as a promising method to study how children and their teachers spend their time in preschool, in terms of where, with what, with whom, how often, how long, and with what intensity.

The focus of this dissertation is to examine variations in preschool practices and environments within an international and national Swedish perspective, and to describe how these variations relate to participation in those environments for children. Behavior count observations are used to examine variations in preschool practices and environments in Sweden, Portugal, and the U.S., representing different ECEC traditions. There is an extended focus

on preschools in Sweden, arising from a social pedagogical tradition, and variations in free play participation of Swedish preschoolers are explored. The findings will be discussed in relation to preschool quality, inclusive education, and the Swedish preschool for all children.

The three scientific articles in this dissertation are guided by a system theory perspective. Starting from a broad macro level examination of ECEC, the focus is narrowed down to proximal process, and child-oriented levels. The first article (I) takes an international perspective, focusing on the structural characteristics of preschool environments within a cultural frame, with preschool practices seen as a reflection of these structural characteristics. The second article (II) focuses on microsystems within Swedish preschools, emanating from a social pedagogy tradition, portraying everyday life in preschool for children and teachers. The third article (III) centers on one of the key activity settings for children in Swedish preschool, i.e., free play. The focus is on children's presence and engagement in free play activities as indicators of proximal processes theorized to influence children's health, development, and learning.

## 5. Theoretical Framework

In this section, the theoretical framework and important concepts are presented. The dissertation is written within the field disability research which has an interdisciplinary focus, using theories and findings from many fields. The approach is like that of the history professor Yuval Noah Harari, who stated that you follow the answer to your research questions wherever they may lead you, characteristic of interdisciplinary research. The dissertation is framed by the idea that to understand a phenomenon, such as preschool practices or child participation, knowledge of the frame or system surrounding the phenomenon is needed, as the system is believed to influence the phenomenon itself. The specific theoretical framework used in the dissertation is the bioecological theory of human development (Bronfenbrenner & Morris, 2006).

### 5.1. Bioecological Theory of Human Development

The roots of the bioecological theory were developed in the 1970s by Urie Bronfenbrenner (1979). At that time, the focus was on the role of the environment in explaining human development, and as such, it was an ecological theory. Human development was at the center of the ecological model and Bronfenbrenner stressed that the environment can be viewed as a nested structure with four levels or systems surrounding the developing child, represented graphically as inner and outer circles based on the distance to the child. The most proximal level concerns the *microsystem* (1), the environments where the child spends most of his/her time, such as the home, preschool/school, and is considered to have the largest potential for influencing child development. The second level, the *mesosystem* (2) describes how interactions between environments in the microsystem, such as between the home and the preschool environment, also have an influence on the developing child. The third level, the *exosystem* (3), defines environments that the child is not directly or rarely taking part in, e.g., the parents' workplaces, social services, preschool management, and health care, but still have an influence on the child's development, primarily through their influence on the microsystems. The fourth and most distant level, the

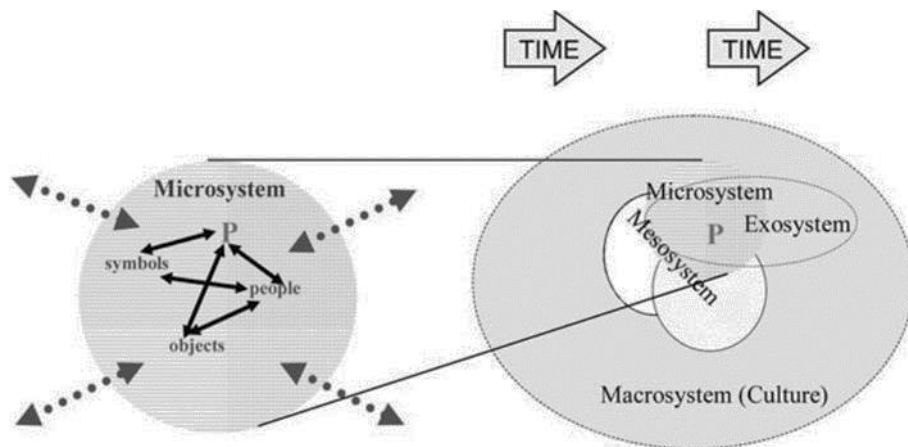
*macrosystem*, defines the influences of cultural ideas, attitudes, and structures in society on the child's development, through influencing the more proximal levels.

This ecological theory continued to develop over the years and went through three stages reflecting changes to the focus of the theory (Rosa & Tudge, 2013). In the 1990s and early 2000s, the mature version of the theory (Bronfenbrenner & Morris, 1998; 2006) emerged. *Proximal processes*, defined as “the time children spend interacting with persons, objects and activities in a manner that over time becomes increasingly more complex” (Bronfenbrenner and Morris, 1998, p. 996), were placed in the center of the bioecological theory together with the Process-Person-Context-Time (PPCT) model (Figure 1). The PPCT model explained the synergistic influence of person characteristics, context characteristics (proximal and distal), the developmental outcome, and time on proximal processes (Merçon-Vargas et al., 2020). Proximal processes were considered the driving force of children's development. Subsequent work (e.g., Tudge et al., 2016; Merçon-Vargas et al., 2020, Xia et al., 2020) has further developed the idea of proximal processes and provided guidelines on how the model can be used more practically in research. Time is an important aspect in the model and considers micro-, meso-, and macro-time. Micro-time within proximal processes defines how often, how long, the timing, and with what intensity children participate, meso-time pertains to the occurrence of proximal processes across days, weeks, or months, and macro-time is the changing expectations and events in society taking place over years.

In keeping with the bioecological theory, this dissertation addresses the importance of the everyday environment in preschool and its influence on children's participation. Proximal processes are closely examined and identified through the focus on child engagement, which can be seen as a snapshot of a proximal process (Ponitz et al., 2009). Short and repeated observations of what children are currently doing across a day in preschool can provide information about how often children are exposed to and participate in certain environments, activities, and interactions. Simultaneous observational ratings of children's level of engagement can further provide a measure of the intensity of being present, with which high levels would indicate a potential proximal process.

Figure 1.

*Bronfenbrenner's Process-Person-Context-Time (PPCT) model.*



*Note.* From *The everyday lives of young children: Culture, class, and child rearing in diverse societies* (p. 69), by J. Tudge, 2008, Cambridge University Press. <https://doi.org/10.1017/CBO9780511499890> Copyright 2008 by Cambridge University Press. Reproduced with permission of The Licensor through PLSclear.

### 5.1.1. *The Structure-Process-Outcome Framework*

A second framework that relates to ECEC and shares similarities with Bronfenbrenner's bioecological theory (Bronfenbrenner & Morris, 2006) is the structure-process-outcome framework of ECEC quality (see European Agency for Special Needs and Inclusive Education [EASNIE], 2017), with roots in Donabedian (1966).

The structure-process-outcome framework defines child outcome indicators as outcomes related to children's learning, engagement, and well-being, like human development in the bioecological theory (Bronfenbrenner & Morris, 2006). Outcome reflects the influence of ECEC structural and process quality indicators (EASNIE, 2017). The structural quality indicators define the conditions for ECEC, specifically, the organization and implementation of ECEC (Edwards, 2021). These conditions can be distal, such as national regulations, accreditations, monitoring and reporting, funding, legislation of group sizes and child-teacher ratios, and requirements of education for

preschool teachers (i.e., macro-level factors in the bioecological theory), or more proximal conditions, including management of the preschool, regulations to ensure child safety and health, length of the day, and local ECEC policies (similar to exosystem factors). Process quality indicators define children's interactions and experiences in preschool, including physical and emotional care and support, instructional quality, the organization of the child group, and the activities provided to the children (Edwards, 2021). Process quality indicators are comparable to the proximal processes situated in the micro-level in the bioecological theory of human development (Bronfenbrenner & Morris, 2006). The specific focus on preschool quality makes the structure-process-outcome framework useful in this dissertation.

## 5.2. Inclusion as a Process

Inclusion is increasingly advanced as the standard for ECEC and compulsory school provision. The formulation of the Salamanca Declaration (Unesco, 1994) by the representatives of 92 governments and 25 international organizations stressed the right to education for all children, especially children with special educational needs (SEN). This inclusive approach came to replace its forerunner integration, with the distinction that inclusion is about adapting the school environment to fit the needs of all children, rather than enabling children with SEN to fit into a fixed school setting. Inclusion focuses on all children and every child (Palla & Vallberg Roth, 2022).

There are many definitions of inclusion in research (Göransson & Nilholm, 2014). In ordinary language, inclusion is considered as the mere placement of a child with disabilities or SEN in the same school setting as other children in their neighborhood, previously referred to as mainstreaming. This definition of inclusion was not the intent of the Salamanca Declaration (Unesco, 1994), with many researchers arguing against this placement definition of inclusion. However, it has been the most common understanding of inclusion within research (Göransson & Nilholm, 2014). The second most common group of definitions focuses on meeting the social and academic needs of children with disabilities and SEN. Two more ambitious but less common groups of definitions in the literature focus, first, on meeting the social and educational needs of *all* children, and second, on the creation of communities

characterized by valuing justice, care, and diversity (Göransson & Nilholm, 2014). Meeting the social and educational needs of all children seems to match well with the intent of the Salamanca declaration (Unesco, 1994), as well as with the statement of the Swedish national preschool curriculum, a preschool for all children (Swedish National Agency for Education [SNAE], 2019).

The various definitions of inclusion have implications for how inclusion is approached, whether it is seen as placement, a process, or an outcome. In this dissertation, *inclusion* is seen as a process, or the means to meet the social and educational needs of all children in preschool. Consequently, if inclusion is viewed as a process, evidence must be used to evaluate the progress of the implementation (Ainscow, 2019). One promising way to assess the outcome of inclusion here-and-now, is to assess children's participation in preschool (Van Mieghem et al., 2020).

### 5.3. Participation as an Outcome of Inclusion

Participation has many meanings. In ordinary terms, it often means to have influence or power over choices in social situations, such as having opportunities to influence decisions and norms in preschool, as well as the frame for the preschool education (Dolk, 2013). In research, a variety of perspectives and models of child participation has been developed within different scientific disciplines, such as sociology, education, and developmental science (Correia et al., 2021). With the emergence of international policy documents stressing the importance of participation by all members of society, including children (United Nations Convention on the Rights of the Child, 1989) and people with disabilities (United Nations Convention on the Rights of Persons with Disabilities, 2006), child participation has largely been advocated from the position of social policy and a rights-based perspective (Gal & Duramy, 2015; Leavers & Declercq, 2018). This view of child participation is also evident in the work of preschool researchers in Sweden (e.g., Sandberg & Eriksson, 2010; Sheridan, 2007).

An influential theoretical perspective on participation is available in the International Classification of Functioning, Disability and Health (ICF; WHO, 2001). The ICF describes participation as a health-related concept and defines it as involvement in a life situation. The ICF takes a biopsychosocial

perspective on health and disability and recognizes that multiple factors on various systemic levels, from the biological to the social, are involved in explaining health and disability. It focuses on the salutogenic and positive aspects of health, rather than on the absence of disease, which previously had dominated the views on health. Similar timely changes in perspectives were noted in the field of psychology, with the introduction of positive psychology, dedicated to the study of well-being, positive functioning, and what makes life worth living (Seligman & Csikszentmihalyi, 2000). Some might wonder what the focus on participation adds to the understanding of health in comparison to well-being, or health-related quality of life. The main objective for participation lies in the focus on the functional aspect of health (Stucki & Bickenbach, 2019), or health in action. A child who participates often and intensely in meaningful activities in their everyday life can be seen as the best example of a healthy child (Almqvist, 2006).

Although the health-related perspective and the rights-based perspective of participation overlap to some extent (Laevers & Declerq, 2018), this dissertation views the health-related perspective of participation as a key outcome of inclusive processes in ECEC. Participation as involvement in a life situation has previously been suggested as the ultimate outcome of early intervention (Bailey & Wolery, 1992; Imms 2020), and inclusive ECEC (Bartolo et al., 2016; Maxwell et al., 2018; Odom, et al., 2011). The DEC/NAEYC (2009) joint position statement on early childhood inclusion further states that child participation, together with access and support, are the defining features of quality inclusion. Imms et al. (2017) have stated that “participation can be seen as a universal outcome – one that is important for both learning and development as well as health and well-being” (p. 17). Empirical studies have also begun to support these relations (Augustine et al., 2021; Johansson & Sandberg, 2010; Laevers & Declerq, 2018). Participation can therefore be considered an appropriate outcome of inclusive processes in preschool here-and-now.

### **5.3.1. *Family of Participation-Related Constructs***

After the introduction of the ICF (WHO, 2001) it became clear that participation as the main goal of inclusion needed to be measurable. It had to be possible to evaluate participation from a societal and a rehabilitation

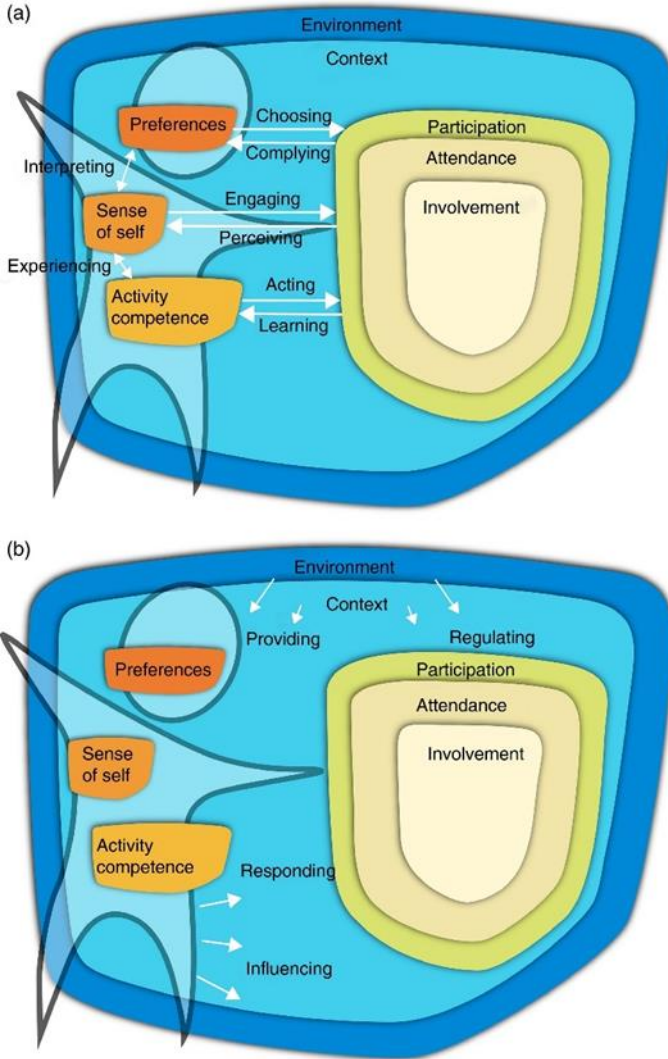
perspective, and not just from personal opinions (Forsyth & Jarvis, 2002, p. 278):

[Measuring participation] would be invaluable in comparing ‘consequences’ of various health states from a public health perspective; or as an outcome tool in evaluating rehabilitation or other programmes. Equally, comparison of the effects (on participation) of environmental and societal factors in people with ostensibly the same levels of ‘impairment’ and ‘disability’ in different settings (e.g., between local councils or countries) is an obvious application. It is these applications that finally justify the use of societal, rather than individual, valuations of participatory states.

Still, researchers have, for the last two decades, experienced problems in how to measure child participation in a satisfying way (Coster & Khetani, 2008; Imms 2020; Maxwell et al., 2018; Whiteneck & Dijkers, 2009). On a conceptual level, participation demands more concrete and scientifically useful definitions than involvement in a life situation (Dijkers, 2010). To this aim, the family of Participation-Related Constructs (fPRC) model (Figure 2) was developed to create a common language of participation, to theorize what participation is and how it is related to various environmental and personal factors (Imms et al., 2017). The fPRC stresses that participation results from the interaction of person- and environmental factors. A child with a disability might for example have an increased risk for low participation, but it is the interplay with the preschool environment that influences the child’s participation. The child’s participation also influences person factors, such as which activities the child prefers, and the perceptions of her/him-self. The nodal point between the individual child and the environment is described as context. *Context* is distinguished from environment in that it is a personal experience constructed in interaction between the individual and the environment, whereas *environment* is seen as broader, more objective physical and social structures. The fPRC view participation as a multidimensional construct, implying that several components or dimensions must be considered to describe participation (Imms et al., 2017). At least, two dimensions need to be considered: (1) “*Being there*”, which refers to physical attendance, and (2) *involvement*, referring to the experience of participation while being there (Imms et al., 2017). Involvement is presented as a superordinate construct with several aspects of involvement suggested, e.g., sense of belonging and engagement when attending.

Figure 2.

The Family of Participation-Related Constructs model



Note. From “Participation, both a means and an end: a conceptual analysis of processes and outcomes in childhood disability” by C. Imms, M. Granlund, P.H. Wilson, B. Steenberg, P.L. Rosenbaum, and A.M. Gordon, 2016, *Developmental medicine & child neurology*, 59, p. 19. <https://doi.org/10.1111/dmcn.13237> Copyright 2016 Mac Keith Press. Reprinted with permission.

### 5.3.2. *“Being There”*

The being there or the attendance dimension of participation represents whether or to what extent children are present in certain environments, such as in preschool settings, but also, when present in such settings, how often they take part in certain activities. Being there is the most measured dimension of participation (Granlund et al., 2021), perhaps because it can be more easily assessed objectively. It is also the dimension closest to the rights-based perspective of participation; to have access to valued environments. Being there is often operationalized in terms of frequency of attending certain activities, and/or the variety of activities a child attend (Imms et a., 2017). With reference to the bioecological theory of human development (Bronfenbrenner & Morris, 2006) the nature and the frequency of children’s attendance are micro-time aspects of importance for children’s health, development, and learning. In this dissertation, children’s frequency of attending certain environments and activities in preschool will be in focus.

### 5.3.3. *Involvement*

Being there is considered a necessary, but not a sufficient, prerequisite for participation (Imms et al., 2017). In the fPRC, involvement is defined as the experience of participation while attending and is perhaps the most important aspect of participation. Here, involvement consists of several subcomponents, namely, engagement, motivation, level of affect, persistence, and social connection (Imms et al., 2017). It should be noted that involvement remains a variedly defined concept in research (Granlund et al., 2021; Steinhardt et al., 2022). Aspects of the involvement dimension have commonly been operationalized as frequency or intervals of social connections (e.g., social interactions, reciprocal play), or as enjoyment while attending (Imms et al., 2017). The subjective nature of involvement means that it is best assessed through direct response or self-report from the target individual. However, when age or communicative ability limit such approaches, proxy ratings or observations are available options (Leavers & Declerq, 2018).

### 5.3.4. *Engagement*

Like involvement, the understanding of child engagement is varied in the literature (Ritoša et al., 2023b; Steinhardt et al., 2022) and primarily two fields of research have focused on the concept of engagement for young children: early intervention and early education (Ritoša et al., 2023b). In the fPRC, engagement when being there relates to the experience of participation. *Engagement* is seen as a subcomponent of involvement and is defined on an individual level as “the internal state of individuals involving focus or effort” (Imms et al., 2017, p. 20). This view of engagement is adopted in this dissertation.

A child’s engagement is related both to child and environmental factors (Vitiello et al., 2012). Previous studies in preschool settings have found that child engagement is a predictor of school readiness gains (Williford et al., 2013a;), and related to self-regulation (Coelho et al., 2023; Sabol et al., 2018; Williford et al., 2013b), a generic ability important for many school-related outcomes. Children’s engagement has also been related to the quality of the preschool environment (Robertson et al., 2020; Williford et al., 2013a). Free play activity settings that provide children with more choice have further been related to higher child engagement (Coelho et al., 2019; Markova, 2017; Vitiello et al., 2012). Recent research has shown that the same preschool practices found to be important for school readiness outcomes in a U.S. preschool setting (Farran et al., 2017), were also related to child engagement (Christopher & Newman, 2022). These practices included child associative and cooperative interactions, sequential activities, teachers’ listening to children, the amount of instruction or teaching, teachers providing behavior approvals, and teacher emotional tone. In Swedish preschool settings (Castro et al., 2017), emotional support, an aspect of preschool process quality, has been found to predict child engagement. Studies also show that children with disabilities and SEN tend to have lower engagement (Coelho et al., 2019; Sjöman, 2018).

Measurement of child engagement include ratings of level of engagement in specific activities or more general environments, either through surveys (e.g., Åström et al., 2018; Khetani et al., 2015; McWilliam & deKruif, 1998) or through observations (e.g., Farran & Anthony, 2014; Kishida et al., 2008).

Although the correspondence between child engagement as measured by surveys and by observations is still unclear (e.g., Coelho et al., 2023; Ritoša et al., 2023a), engagement assessed by observations is likely the most contextually sensitive measure of engagement (Ritoša et al., 2023a) and the most appropriate to study proximal processes. Measuring child engagement is relevant in this dissertation as short observations of child engagement in preschool activities can be considered a snapshot, or an indicator, of a proximal process (Ponitz et al., 2009) within the bioecological theory (Bronfenbrenner & Morris, 2006). While acknowledging the several subcomponents of involvement in the fPRC (Imms et al., 2017), this dissertation focuses on the subcomponent of engagement, as this is the focus of the empirical studies. When using the term participation, it refers to the being there dimension and engagement while being there.

## 6. Background

In this section, information relevant for understanding the focus of the dissertation is presented, including the overall projects on which the dissertation was grounded, the ECEC organization and traditions internationally and in Sweden, and previous research on preschool practices and child participation in preschool.

This dissertation is framed by two larger projects: Participation and Engagement in Preschool International (PEPI) 2015-2016, and Early Detection-Early Intervention (TUTI), 2014-2015. Both projects shared a focus on the preschool environment and the participation of children and used the behavior count observational measures Child Observation in Preschool (Farran & Anthony, 2014) and Teacher Observation in Preschool (Bilbrey et al., 2014). The aim of the PEPI project was to compare preschool environments with different structural characteristics within an international perspective and to investigate the mediating role of classroom process characteristics on the relation between child characteristics and participation. The aim of the TUTI project was to identify preschool children with behavioral problems, as well as to examine factors related to children's general preschool engagement over time. Combining COP and TOP data from both projects was considered appropriate to answer the research questions of this dissertation. The dissertation further involved collaborations with Porto University (Portugal), and Vanderbilt University (U.S.) as part of the larger international PEPI project.

### 6.1. Early Childhood Education and Care (ECEC)

The number of children spending time in ECEC has increased all over the world since the 1960s, and in high income countries, ECEC is the standard in many countries (Melhuish et al., 2015). Large-scale international studies have showed positive effects of attending high quality ECEC on children's cognitive, language, and social development, especially for disadvantaged children (Davies et al., 2021; Dietrichson et al., 2020; Melhuish, 2015; Ulferts et al., 2019; von Suchodoletz et al., 2023). Still, the organization of ECEC is

very different when viewed from a broader international perspective. To note is that the broad term ECEC is used in relation to policy and broad structural features setting the scene for preschool environmental characteristics and practices.

### **6.1.1. *Variation in ECEC Organization***

The development of ECEC has occurred at different historical times in different countries, and for partly different purposes. In Sweden, preschools have existed on a broad scale since the 1970s where the initial purpose was to enable women to enter the labor market. The current democratic mission to foster democratic citizens was, however, evident early in the development of preschools. Over time, the role of the preschool for children themselves, for their development and learning, and for society, has increasingly been stressed (Martin Korpi, 2017). The national Swedish preschool curriculum, Lpfö 18 (SNAE, 2019), governs all preschools with a holistic and long-term perspective on children's development beyond knowledge and skills in traditional academic subjects. Municipalities govern most preschools, while about 30% of the preschools are run by independent organizations, mainly non-profit (SNAE, 2023b). The Swedish Schools Inspectorate performs quality evaluations nationally of all preschools. In Sweden, as well as the Nordic countries, ECEC services are universal, subsidized and quality regulated, targeting children from infancy to primary school (Melhuish et al., 2015). An integration of care and education is emphasized, and children attend preschool from an early age for most of the day.

In a European perspective, availability of ECEC for children under 3 years is low, and about a third of this population attend ECEC. Where services for the youngest children exists, they are often separated from services provided to children over 3 years, are of lower quality, and subject to a charge. Accessibility and affordability are better for children over 3 years and about half of the European countries guarantees access from the age of 3, often free of charge, although quality evaluations are rare (European Commission/ EACEA/Eurodice, 2019).

In the U.S., ECEC covers many different programs with various agencies and funding streams. Some programs focus on the care of young children, while

an increasing number of 4-year-old children are being served in public early childhood education programs providing compensatory education (Farran & Nesbitt, 2019). Some of the compensatory education programs are governed federally, and some on state-level. Private ECEC programs exist, and their high costs make them accessible mainly for children from higher socioeconomic backgrounds. The main purpose of the compensatory programs is to close the gap in educational levels among children from different socioeconomic backgrounds (Farran & Nesbitt, 2019). It is mainly children aged 3-5 years, mostly 4-year-olds, from the poorest backgrounds that receive access to early childhood compensatory education, although access varies between states. In the compensatory programs, children spend about 3-6 hours in preschool, 9 months á year (Farran & Nesbitt, 2019). Knowledge in traditional school subjects is prioritized in the compensatory programs as the general goal is to make children ready for school (Melhuish et al., 2015). The variation in the goals and the organization of ECEC internationally presents challenges to the study of preschool practices and child participation. But variation in preschool practices and processes must be researched to move the field forward (Love & Horn, 2019).

### **6.1.2. *The Early Education and the Social Pedagogy Tradition of ECEC***

Within an international perspective, two traditions can be identified related to the values, goals, and curricula of ECEC: The early education tradition and the social pedagogy tradition (Einarsdottir et al., 2015; Kuusisto & Garvis, 2020; OECD, 2006; Vallberg Roth, 2013). The early education, or readiness for school tradition emphasizes school readiness and cognitive development and the transfer of primary school content and methods into ECEC. Program standards and evaluating child academic and cognitive outcomes are considered important. The early education tradition is evident in the U.S., United Kingdom, Netherlands, France, Canada, Australia (OECD, 2006; 2012), and in Portugal (Taguma et al., 2012). In contrast, the social pedagogy tradition, or the Nordic tradition, emphasizes societal aims of ECEC beyond school preparation, such as democratic values, child-centeredness, holistic development, and life-long learning. It is evident in the Nordic countries and regions (Sweden, Denmark, Norway, Finland, Iceland, Faroe Islands,

Greenland, and Åland) and central Europe (e.g., Germany). In Nordic ECEC, the question of what works has not been the focus of research to evaluate preschool practices (OECD, 2006; Sheridan & Williams, 2018). This lack of evaluative research might be related to an unwillingness to implement methods and approaches defining the early education tradition, with the fear of an increasing “schoolification” of preschool (e.g., Persson et al., 2022). Although similarities exist across Nordic countries, it should be noted that they differ in the history, laws, and regulations related to ECEC, and that the social pedagogy and the early education traditions are increasingly integrated in the Nordic countries and might be better viewed as two ends on a continuum (Vallberg Roth, 2013).

Looking at the preschool curricula or corresponding early learning standards of Sweden, Portugal, and the U.S., representing the different traditions, both Sweden and Portugal have national preschool curricula, in contrast to the U.S. that has no national preschool curriculum. Early childhood education programs in the U.S. commonly choose among several published curricula that are highly structured (Nesbitt & Farran, 2021). In Sweden, the national curriculum, Lpfö 18 (SNAE, 2019) is referred to as an input-based curriculum, specifying what the preschool teachers should provide to the children, whereas many U.S. curricula are output-based, stressing what the children should achieve. The national Portuguese curriculum appears to be somewhere in the middle (OECD, 2012; Taguma et al., 2012).

### **6.1.3. *The Swedish Preschool***

Preschool is a natural everyday environment for many young children in Sweden. Almost 86% of children between 1-5 years, and more than 95% of children between 4-5 years attend preschool (SNAE, 2023d). Fifty-five percent of the preschool units are age homogenous serving either children 1-3 years, or 4-5 years (SNAE, 2023a). As part of the national school system and regulated by the Education Act (SFS 2010:800) every child has a legal entitlement to preschool, i.e., public authorities guarantee a place for each child whose parents demand it. Swedish school law (SFS 2010:800) states that schools and preschools should provide equal access, equal quality, and be compensatory.

The anecdote below describes a typical preschool day for a two-and-a-half-year-old child in a Swedish preschool.

*At 7:45 in the morning, Oscar, 2,5 years old arrives at preschool Skogshyddan with his father and older brother Max, 5 years. The preschool is a relatively large but low building situated nicely with access to the forest in the east, while still within walking distance from Oscar's home. Many of the young children in the neighborhood are enrolled there. First, they leave Max at his unit Björnen, which is one of two units for children aged 4-5 at the preschool. Then, they take the next door to Oscar's unit, Humlan, which is one of two units for younger children, between age 1-3 years, in the preschool. Oscar and his father are greeted in the hallway by one of the preschool teachers, Anna, Oscar's favorite. Together they wave goodbye to Oscar's father through the window. Oscar and Anna walk to the main room. Many children are already there. A few of them have been there already from 6 am.*

*Oscar becomes happy when he notices that Elvira is there. Elvira and Oscar often play together, but after Elvira got a baby sister, she is only in preschool at certain days. Oscar and Elvira immediately start to play with the dinosaurs, their new interest. Soon however, it is time for breakfast, and all children are seated at the tables. The tables are located inside the unit, and when they are not used for mealtimes, they are used for other activities. After breakfast it is play time again. Oscar and Elvira go directly to a smaller group room, where they can hide in the huts and dens built up by the teachers. Other children are playing in the main room with various materials and toys of their choice. Every now and then, one of the teachers joins the play, but often they just stay nearby or help with children's personal care. Two more children enter the unit, among one a new girl named Lisa who have not started to walk yet.*

*Around 9.15 it is time for a brief circle time on the rug. Oscar enjoys the singing part and tries to follow the accompanied movements the best he can. After the singing, the children receive a small fruit before getting dressed to go outside. The oldest children are encouraged to dress themselves, while many still need help from the teachers. By now, it has started to rain a bit, but that does not stop the group from going out. Often, they go out twice. Oscar looks forward to the playground and hopes to be first to grab a bike. Oscars' brother Max and his unit are also outside, but in a different part of the*

*playground that contains more challenging slopes and climbing areas. The group stays out until lunch time, and the ordinary teachers participate. When it is time to go inside, children are gathered or circulated a few children at a time to undress all the wet clothes and putting them into drying cabinets. After lunch, many of the children are dressed again for naptime outside in the prams. The prams are located on a veranda facing the windows to the main room to allow preschool teacher to monitor the children. Many of the children are used to this routine and fall asleep quickly and sleeps heavily until they awake, or when the teachers wake them up. Children who have stopped napping are offered calm activities such as reading or drawing.*

*After naptime, one of the teachers reads for a small group of children, and the rest are playing. At 2.30, it is snack time and Oscar love the oatmeal sandwiches baked by the preschool's chef. After snack time, some of the children are picked up by their parents or grandparents, while some, like Oscar, stays on until 4 pm, and some even to 5 pm. Max's day looks quite similar, with a pre-dominance of indoor and outdoor play, although with a slightly increased focus on literacy and math in various group formats, as a preparation for preschool class next year. When Oscar's father picks them up, Anna, the who greeted Oscar in the morning, has left for the day, as some teachers work part time. Tomorrow, Oscar and Max will go home after naptime, since his mother has decided to shorten her workhours for two days a week to spend more time with Oscar and Max.*

The Swedish preschool of today has its roots in the development of the Swedish welfare state, family policy and the commitment to a good childhood for all children. Preschools can be traced back to child crèches and kindergartens in the 19th and 20th centuries. In the 1970s, preschools were established on large scale to provide families with day-care so that both parents could be part of the workforce. In the 1990s, the responsibility for preschool was moved from the social sector to the educational sector and became part of the mission of life-long learning and received its first national curriculum, Lpfö-98 (Martin Korpi, 2017; Lindgren et al., 2020).

A typical Swedish preschool unit has a work team of three personnel, with at least one being a certified preschool teacher (3,5-year academic preschool teacher education; bachelor's degree), and other personnel caring for the

children (some pedagogic education to academic degree). Around 40% are certified preschool teachers (SNAE, 2023e). Average adult-child ratio is 1:5 (SNAE, 2023c). Teacher tasks are often shared among the team members due to a tradition of teamwork. Increased responsibilities for certified preschool teachers have emerged in the recent preschool curriculum, Lpfö 18 (SNAE, 2019). In this dissertation, the term “preschool teacher” will be used broadly and includes other personnel in the preschool with a responsibility for caring for the children, such as child-minders.

### The Swedish National Curriculum for Preschool

The main goal for the current national Swedish curriculum for preschool education, Lpfö 18 (SNAE, 2019) is that all children shall learn and develop knowledge and values. The Lpfö 18 is based on the previous curriculum, Lpfö-98 revised 2010 (SNAE, 2011), but has an increased focus on teaching. It should be noted that the Lpfö-98 revised 2010 curriculum (SNAE, 2011) was effective at the time of data collection in this dissertation. In the current curriculum, Lpfö 18 (SNAE, 2019), a holistic approach to children’s learning is stressed, where care, development and learning form a whole. Each child’s development and life-long learning should be promoted. Education should be enjoyable, secure, and rich in learning and rest on the principles of human rights and basic democratic values. Children’s own initiatives should be considered, and participation is stressed as an important goal for children. Here, participation is mentioned in direct relation to the terms influence, rights, and responsibility, and in reference to understanding democratic principles. Participation in terms of being active and engaged in the preschool activities are not explicitly mentioned. The curriculum further states that children learn through play, social interaction, exploration, and creation, but also through observing, conversing, and reflecting. Play is stressed as the foundation for development, learning, and wellbeing and should be central in the education of the child. Both child-initiated play, and play introduced by preschool teachers is emphasized. Variability in activities and environments should be provided, both indoors and outdoors. Interactions both between children and between children and preschool teachers are considered important for children’s development and learning.

New to the Lpfö 18 (SNAE, 2019) is the formulation regarding teaching. The curriculum states that preschool teachers should teach, which means to stimulate and challenge the children to promote development and academic learning. Teaching should be teacher-led, directed towards the curriculum goals, and be both planned and spontaneous. These more specific statements around teaching have recently led to the presentation of a new theoretical approach to teaching in Swedish preschool settings, i.e., play-responsive teaching that emphasize teaching as a shared activity between children and teachers, and not an action on behalf of the preschool teachers (see Lindgren et al., 2020; Pramling et al., 2019; Pramling & Wallerstedt, 2019).

### Physical Design of the Preschool

Swedish preschool education is offered in a variety of buildings, from facilities built for young children and preschool education, to houses and larger apartments. A typical preschool is divided into several units where each unit primarily serves a specific group of children based on age. Although a report of the physical environments in Swedish preschools is missing (Persson, 2012), the physical design of a preschool unit often includes a larger playroom, sometimes a gym designed for physical play, a couple of smaller group-activity rooms, a kitchen and/or dining room. A preschool unit is the closest equivalent to a preschool classroom in more school-like ECEC. The outdoor environment is considered an educational environment and the size of the outdoor environment varies, largely depending on the urban, suburban, or rural location of the preschool. Playgrounds and forests nearby are commonly used for trips and outdoor play.

### Free Play in Swedish Preschools

Free play is regarded as highly beneficial for the development and functioning of young children (Bjorklund, 2022; Colliver et al., 2022; Lee et al., 2020), and the European Council (2019) suggests a high use of free play in preschool to promote children's engagement. Free play has a central place in Swedish preschools and much time is spent in free play indoors and outdoors, although the extent of free play is unknown. *Free play* or unstructured play generally means that children have many choices to pursue the activities they prefer. Free play is never free in absolute terms, and the amount of child agency in free play varies. A recent small-scale study of Norwegian ECEC, based on the

same social pedagogy foundation as Sweden, showed that children spent 60% of the day in free play in Norway (Karlsen & Lekhal, 2019).

### Children With Special Educational Needs

In Sweden, there is universal access to preschools and most children attend the same preschool as children in their neighborhood. The national preschool curriculum, Lpfö 18 (SNAE, 2019) states that children who need special support in preschool permanently or temporary, should receive it. In this dissertation, these children are referred to as children with special educational needs (SEN). Children with *SEN* in preschool are children who need extra support on top on what is provided to all children to function in preschool (Lillvist & Granlund, 2010). This is a highly heterogeneous group, and the need of extra support is based on various factors. Lillvist and Granlund (2010) have shown that the variation in functioning among children with SEN appears to be as large as the variation between children with and without SEN. Still, children with SEN have an increased risk of exclusion (Bartolo et al., 2016). Sweden is one of few European countries that lack official statistics on the current number of children with SEN in preschool. Lillvist and Granlund (2010) estimated that about 17-20% of children in preschools have SEN. In a study, the Swedish Schools Inspectorate (2017a) showed that about two-thirds of the studied preschools displayed shortcomings in their work with children with SEN. In many of the preschools there was a lack of knowledge, strategies, routines, and resources to work with these children. A recent study (Ginner Hau et al., 2022) identified that preschool teachers tended to focus on the child group and not on individual children when asked about factors important for inclusion in preschool. Most of the preschool teachers in the study stated that individual support for children's development and learning was not available. In addition, few strategies were suggested by the teachers on how to engage children who were at risk for exclusion. This situation is problematic since inadequate support may have a negative impact on children's participation in preschool activities and affect their development and learning.

### Second Language Learners

The proportion of second language learners (SLLs) in Swedish preschools has increased over the years. In 2022, an average of 25% of preschoolers were SLL children (SNAE, 2023d). There is also considerable preschool

segregation of children related to residential segregation, as well as free-choice reforms (Alm Fjellborg & Forsberg, 2023). As preschool segregation is related to children's SLL status, the number of SLL children in preschool is not evenly spread across preschools. In some preschools, there are no SLL children, whereas in others, most of the children are SLL. Recent research has described the situation and the challenges experienced in preschools where most of the children are SLL (Finnman et al., 2023; Finnman et al., in press) with consequences for support provision and engagement (Almqvist et al., 2018; Langeloo et al., 2021).

## 6.2. Previous Research

### 6.2.1. *Preschool Practices - Studied Through Rating Scales and Behavior Counts*

Research on preschool practices has for a long time centered around process quality indicators, referring to the structure-process-outcome framework (see EASNIE, 2017), focusing on interactive elements and how well preschool teachers attend to and instruct the children. It should be noted that there is no universal definition of quality in ECEC, but researchers agree that quality can be assessed by structural and process indicators that can be more or less universal (see EASNIE, 2017; Slot et al., 2016).

What is notable about the structure-process-outcome framework (see EASNIE, 2017) is that it highlights that quality in preschool is not something that stands alone, it is necessarily related to the outcome/s it aims to support (Farran & Nesbitt, 2019). If the desired child outcome is, for example, literacy skills, quality indicators refer to literacy skills. However, the valued outcomes for children in ECEC likely differ between cultures and settings, for example between the early education tradition and the social pedagogy tradition. The early education tradition emphasizes school readiness, whereas the social pedagogy tradition emphasizes holistic development (OECD, 2012). If desired child outcomes vary, quality indicators might also differ, as they refer to different outcomes.

An abundance of preschool quality instruments has been developed (see Edwards, 2021), and many of the measures originate in the U.S. The Early Childhood Education Rating Scale (ECERS-3; Harms et al., 2014) and the Classroom Assessment Scoring System (CLASS Pre-K; Pianta et al., 2008) are the two most widely used preschool quality instruments internationally, and both are developed in the U.S. Both instruments are observational rating scales focusing on how well the preschool performs across selected structural aspects and practices considered important for children's development and learning. ECERS is seen to incorporate both structural and process quality, whereas the CLASS is primarily seen as a measure of process quality (Edwards, 2021). Both instruments have also been used in Sweden (e.g., Castro et al., 2017; Garvis et al., 2018; Nasiopoulou et al., 2023; Pramling Samuelsson & Sheridan, 2009).

As part of the European CARE project, Slot et al. (2016) investigated the cultural relevance of the CLASS instruments for Europe by comparing the CLASS content and results to the perceptions of preschool teachers across different countries and preschools. Overall, there was a high level of agreement across the countries in terms of what constituted process quality. All agreed that supporting children's autonomy, creating a sense of belonging, and fostering children's learning was important, and these aspects were captured with the CLASS instruments. However, the study concluded that the CLASS instruments need to be expanded or new tools developed to capture more fully the aspects of process quality from a European perspective. Other studies have come to the same conclusions that additional aspects of quality need to be considered, both concerning the CLASS and ECERS (Garvis et al., 2018; Pastori & Pagani, 2017). Despite a large overlap in the perceptions of preschool quality in European ECEC, the common preschool quality rating scale instruments appear to fail to capture some culturally important preschool practices. Therefore, quality rating scales do not appear sufficient when the aim is to explore preschool practices in an international perspective. Less culturally biased instruments seem needed. Preschool quality rating scales do not adequately capture information on how much or how often children are exposed to or take part in certain environments, activities, and interactions. The quantity of exposure is however important for children's participation, development, and learning (Bronfenbrenner & Morris, 2006). Behavioral count instruments might then be a better option.

Behavior count observations utilize an approach in which a broad range of behaviors, activities, interactions, and environments of individual children and teachers are observed for short durations (approximately 3 to 30 seconds) repetitively in circles across one or several days (Burchinal et al., 2021). They can be used in studies on preschool practices to answer questions like how often or how much some practices occur, or to provide eco-behavioral characteristics of a child's activities. Examples of behavior count measures are the Child Observation in Preschool (COP; Farran & Anthony, 2014), Teacher Observation in Preschool (TOP; Bilbrey et al., 2014), and the Emerging Academic Snapshot (Ritchie et al., 2001). Some large-scale descriptive observational studies of preschool practices have been made in the U.S., looking into the use of various activity settings, defined as "the basic way that teachers organize class time in terms of both group size and activity" (Vitiello et al., 2012, p. 210), in this dissertation operationalized as schedules. The studies showed an equal amount of time spent in teacher-led whole groups, free play, and routines (e.g., Chien et al., 2010; Early et al., 2010). Recently, a study using behavior count measures with individual children found associations between the observed practices and later child learning outcomes in U.S. preschool settings (Burchinal et al., 2021), indicating the ability of behavior counts to capture key practices of children's everyday life of importance for learning and development. Behavior count observations have been identified as especially valuable when children engage in different activities, such as in Swedish preschools characterized by free play, where a whole-class perspective might not be sufficient (Burchinal et al., 2021). Few studies, however, have utilized behavior count measures to study preschool practices in an international perspective.

In Sweden, a large-scale descriptive observational study of preschool children's activities, group patterns and language was made in the 1980s (Kärrby, 1986). Considerable changes in the Swedish society and preschool structure have taken place since then, with the responsibility for preschool moving from the social sector to the educational sector, and the incorporation of a national preschool curriculum. An updated picture is needed on the variation in how children and teachers spend their day within a Swedish and international perspective as a basis for understanding and to assess child participation in a meaningful way.

### 6.2.2. *Child Participation in Preschool*

Studies of participation in Swedish preschools have typically involved children in pre-determined categories, such as children with disabilities or SEN. One study (Luttrupp & Granlund, 2010) indicated that children with diagnosed intellectual disability were more similar than different from their typically developing peers in terms of the preschool activities they attended, and observed engagement did not differ between the groups. Children with intellectual disabilities did, however, communicate less often, and especially less often with peers. These children were also more often in proximity to a teacher than their peers. Another study (Lillvist, 2010) comparing three groups of children (typically developing, established disabilities, and undiagnosed teacher-identified children with SEN) showed that typically developing children were observed as more verbal towards other children than children with established disabilities, and expressed socially warmer behavior than children with established disabilities, and teacher identified children. No significant differences were found between the groups on observed engagement of children. However, for teacher-rated child engagement, using the Children's Engagement Questionnaire (CEQ; McWilliam, 1991), significant differences were found between the typically developing children and the other two groups. A similar finding on teacher-rated engagement was made by Almqvist (2006), using a person-oriented design where children with developmental delay were overrepresented in the low engagement group, as rated by CEQ (McWilliam, 1991). In a person-oriented design, the individual child is in focus. In a sample, children can, for example, be grouped based on similarity in responses on several variables. This allows for an exploration of homogenous patterns in children's responses, and more variances can be seen. It allows for increased consideration of the whole child, in contrast to the commonly used variable-based designs which typically focus on single variables and group comparisons (Bergman et al., 2003).

Although the above studies are important, there is a concern that a categorical exploration might hide important variation between children. Children with disabilities and SEN are expected to vary in their functioning (Lillvist & Granlund, 2010), perhaps as much as between children with and without SEN. To capture more variance and to get a better picture of the participation of all children in Swedish preschool, a person-oriented design appears valuable.

## 7. Rationale

Child participation is an ultimate outcome of inclusive ECEC for all children that can be assessed here-and-now. Child participation in terms of being there and being engaged while being there is also an indicator of proximal processes seen as the engine of child development in the bioecological theory (Bronfenbrenner & Morris, 2006). Assessing child participation requires knowledge about the typical practices of preschool as an everyday environment for young children. Given the different goals, organization, and structures of ECEC within an international perspective, there is reason to believe that there is variation in children's and teachers' activities in preschool across countries, although few studies have examined this issue. Exploring the variation in preschool practices both within an international and national perspective can provide information about contextualization needs for the study of child participation, preschool quality, and proximal processes. To study proximal processes, they must first be identified, which is why knowledge is needed on the everyday environments, activities, and interactions of children and teachers in various preschool settings.

Little is also known about the individual variation in child participation in preschool. Most studies look at group-level variation in participation between children with and without disabilities, although the variation is presumed to be large in both groups in group designs. Using a person-oriented design to assess individual children's participation in relation to child and environmental characteristics can identify children low in participation and their environmental and personal circumstances (Langeloo et al., 2021; Williford et al., 2013a). This is particularly relevant in free play, common in Swedish preschools, where the context of children's play largely differs between children. More nuanced knowledge about the relation between child participation and contextual characteristics also provides a basis for providing high quality inclusion.

## 8. Aim

This dissertation aims to examine variations in preschool practices and environments within an international and national Swedish perspective, and to describe how these variations relate to participation in those environments for children. The findings will be discussed in relation to preschool quality, inclusive education, and the Swedish preschool for all children.

### 8.1. Overall Research Questions

- (1) What are the variations in preschool practices across and within countries?
- (2) How do variations in ECEC goals and preschool practices affect what is considered preschool quality?
- (3) How do variations in preschool environments and practices relate to children's participation in activities?
- (4) How do variations in children's participation in free play relate to child and preschool unit characteristics?

The specific aims of the three articles that will contribute to the overall aim of the dissertation are the following:

- Article I      To evaluate the within-country relevance of two classroom observation measures primarily based on a behavioral count approach focused on teacher and child behaviors, and to examine preschool practices in Sweden, Portugal, and the U.S., as they reflect each country's ECEC goals, organization, and educational philosophies.
  
- Article II     To describe characteristics of Swedish preschool environments and activities for children and of teachers. Secondly, to investigate differences in child level of engagement in indoor and outdoor free play.
  
- Article III    To explore the observed patterns of participation in free play activities of a sample of 3–5-year-old Swedish preschool children using cluster analysis, and to describe the characteristics of the resulting clusters in terms of child and preschool characteristics.

## 9. Methods

In this section, the research design, setting, sample, instruments, procedures, and data analyses will be summarized in relation to each article. More details can be found in the respective journal article.

### 9.1. Research Designs

Article I: Variable-based descriptive design using countries as cases.

Article II: Variable based descriptive and comparative design.

Article III: Person-oriented explorative and variable-based comparative design.

### 9.2. Settings

Article I: Preschool settings in Sweden, Portugal, and the U.S.

Article II: Preschool settings in Sweden.

Article III: Preschool free play activity settings in Sweden.

### 9.3. Samples

#### 9.3.1. Article I

Preschool units (Sweden) and classrooms (Portugal, and the U.S.) from the three countries were analyzed separately. Swedish preschool units ( $n = 78$ ; 24% independent non-profit), had an age span of children of 1-5 years ( $M = 51$ ,  $SD = 9.23$  months), Portuguese classrooms ( $n = 42$ ; 10% independent non-profit) had an age span between 3-5 years ( $M = 46.91$ ,  $SD = 6.71$  months), and U.S. classrooms ( $n = 168$ ; no independent) had an age span of 4-5 years ( $M = 55.36$ ,  $SD = 3.65$  months). Average child group sizes were 20.70 ( $SD = 6.59$ ) for Sweden, 20.93 ( $SD = 3.06$ ) for Portugal, and 18.15 ( $SD = 1.79$ ) for the

U.S. Adult-child ratios were 1:5 in Sweden, 1:13 in Portugal, and 1:10 in the U.S. Unit or classroom level data is based on aggregated data of individual children and teachers. Specifically, in Sweden, 925 children, and 302 teachers; in Portugal, 247 children and 98 teachers, and in the U.S., 3049 children and 337 teachers.

### 9.3.2. *Article II*

The same Swedish preschool units as in article I ( $n = 78$ ; 24% independent non-profit). Age span 1-5 years ( $M = 51$ ,  $SD = 9.23$  months). Average child group size was 20.70 ( $SD = 6.59$ ) with an adult-child ratio of 1:5. Unit-level data is based on individual data from 925 children, and 302 teachers.

### 9.3.3. *Article III*

Sub-sample of Swedish preschool children ( $n = 453$ ) aged 3-5 years ( $M = 55.52$ ,  $SD = 9.69$ ) from preschool units in article I and II. The children came from 56 preschool units across 12 municipalities. Fifty-one percent of the children were girls. Forty-nine (11%) of the children were SLL. Fifty-two children (12%) were considered to have SEN. Sixteen of these children were formally identified, e.g., through diagnosis, and 36 were informally identified by teachers as children in need of special support.

## 9.4. Instruments

### 9.4.1. *Child Observation in Preschool (COP)*

COP (Farran & Anthony, 2014) is a systematic observational instrument that focuses on the behavior of an individual child. It gives a detailed picture of how each child spends their time in preschool. The COP could be described as a bottom-up perspective of the preschool classroom. If most children in the classroom are observed, the data can be aggregated to the classroom level. The bottom-up perspective is especially valuable in observing free play activities unique to individual children, which cannot be captured with a general perspective of the classroom.

Specifically, the observer uses a tablet computer and performs several snapshot observations or “sweeps” (á 3 seconds observation) of each child across a preschool day. The goal is to reach about 20 sweeps per child. The sweeps are performed in a fixed sequence (i.e., children are continuously observed in the same order). In each sweep, the observer rates nine categories of preschool practices: (1) the *schedule* for the child group (i.e., how children are organized, e.g., whole group, free play), (2) if the child is *talking or listening*, (3) *to whom*, (4) to whom the child is in *proximity to* (i.e., within 1 meter), (5) the type of *interaction* (e.g., associative, cooperative), (6) the *material* that the child uses (e.g., math, toy), (7) the *focus* of the child’s activity (e.g., literacy, social), (8) and the *complexity* of the activity (e.g., non-sequential/open-ended, sequential/involving a sequence of steps). The final category (9) child *involvement* concerns how focused and engaged the child is and is rated on a 5-point scale (1 = *Low*, 5 = *High*). Notably, although the COP term is child involvement, the COP involvement category will hereafter be referred to as engagement, as the definition better aligns with the engagement concept in the fPRC model (Imms et al., 2017). Operationalizations of the rating scale of engagement as stated in the COP manual (Farran & Anthony, 2014, p. 29) are presented in Table 1.

#### 9.4.2. *Teacher Observation in Preschool (TOP)*

TOP (Bilbrey et al., 2014) is a systematic observational instrument that focuses on the behaviors of preschool teachers and gives a detailed picture of how each teacher spends their time in preschool. Data on the activities of preschool teachers provides information that can help to explain and be related to what the children are doing in preschool. The TOP is completed simultaneously as the COP by the same observer, and with the same procedure. TOP can be described as a bottom-up perspective of the preschool classroom, and as the COP, the data can be aggregated to the classroom level. Specifically, the observer first observes each teacher (TOP), then each child (COP), and then, back on the first teacher again (TOP). Some categories and codes are the same across COP and TOP, while some are unique to each.

Table 1

*COP Engagement Level Operationalizations*

<i>Engagement level</i>	<i>Operationalization</i>
Low	Child clearly not interested in the activity. Low is reserved for a child who is truly off task, not attending at all, or disruptive. Child may sit with materials, but stare off into space or thoughtlessly look at what other children are doing (different from onlooking). If sitting with materials, it may appear as if child is doing so only because someone has directed him/her to be there
Medium Low	Between Low and Medium
Medium	Child pays ordinary attention to the activity. Child may look up now and then to see what others are doing, but then returns to the activity. Seems interested in the activity but could also easily give up that activity for another
Medium High	Between Medium and High
High	Child is intensely focused on the activity and displays genuine involvement in learning. It would be hard to distract him or her. Seems oblivious to noise and the behaviors of the other children. Child appears to be concentrating and seriously pursuing the activity

In TOP, the observer rates nine categories of preschool practices: (1) the *schedule* for the child group, (2) if the teacher is *talking or listening*, (3) *to whom*, (4) whom the teacher is in *proximity to* (i.e., within 1 meter), (5) teacher *task* (e.g., instruction, monitoring), (6) the *material* that the teacher uses when instructing (e.g., science, literacy), and (7) the *focus* of the teacher’s instruction (e.g., math, social studies). The eighth and ninth categories are scales: (8) the *complexity of instruction* is rated on a 5-point scale (0 = *None*, 4 = *High inferential*), and (9) teacher tone is rated on a 5-level scale (1 = *Extremely negative*, 5 = *Vibrant/enthusiastic*).

For this dissertation, some adaptations were done to the COP and TOP to better capture the preschool reality in Sweden and Portugal (see the result section of article I, on the relevance of COP and TOP). Operationalizations of key behavior count codes for this dissertation, as stated in the COP (Farran & Anthony, 2014, p. 16) and the TOP (Bilbrey et al., 2014, p. 8) manuals are presented in Table 2. Shortened operationalizations of all COP and TOP codes are found in article II.

*Table 2*

*COP and TOP Operationalizations of Key Codes*

<i>Code</i>	<i>Operationalization</i>
Associative interaction	When children (with or without the teacher) are interacting in the context of an activity or task that does not have predetermined rules. Children can be in an associative activity with adults as well as children
Cooperative Interaction	Cooperative interactions are characterized by group identity, rules, and organization. In general, in this state, children are following predetermined rules and those rules govern the steps or sequence of a child's behavior. These interactions can include: formal games, competitions aimed at winning something, and groups formed by children or by the teacher for doing things together in sequence with a clear goal
Teacher managerial task	Teacher/assistant is engaged in an activity that is required to run a classroom. The teacher must be actively engaged. Examples include lining children up, organizing children to move from one activity to another, passing out materials, and describing what children are going to do in centers
Teacher instructing	In a preschool classroom, instruction is broadly defined. It involves any learning activity during which the teacher is interacting with a child or children. Instruction could involve activities that are typically considered academic (e.g., math or literacy), as well as activities in which the focus is art, music, puzzles, or blocks. Instruction also occurs without materials, as in a discussion of why children should be kind to each other

### **9.4.3. *Child Background Data***

Child background data was completed by preschool teachers. For article 1, the amount of child background data varied across the countries, but all collected data on gender, age in months, and whether the child was formally identified, e.g., through diagnosis. In Sweden, data on SLL status, and whether the teacher considered the child to need special support to function in preschool (teacher identified) was also collected.

### **9.4.4. *Preschool Background Data***

Preschool background data was completed by the preschool director. It included background information on each preschool unit or classroom, including the type of unit (e.g., toddlers, children 3-5 years, mixed), private/public management, number of enrolled children and teachers in the unit, number of children formally identified (e.g., through diagnosis), and the number of children who were SLL. In article 1, Portugal and the U.S. also collected data on preschool teachers (e.g., age, years of teaching, educational level).

## **9.5. Procedures**

### **9.5.1. *COP-TOP Training and Inter-Rater Reliability Checks***

All observers received theoretical and practical training on the COP and TOP and achieved acceptable inter-rater reliability (80% for rating scale variables, and 90% for behavior count observations) before the data collection. The U.S. researchers had an established COP and TOP instrument team who performed the training of lead observers. One or more researchers from Sweden and Portugal received personal training on the two instruments together in Portugal, or in the U.S. The training and material used was provided by the U.S. team and the training included theory, discussions, video coding, and practicing observations in preschools. The English versions of the manuals were used by researchers in all countries. The lead researchers trained additional observers in preschools in each respective country. Inter-rater reliability observations were performed with a lead observer. The

appropriateness of any potential adaptation in Swedish preschool settings was closely discussed with the U.S. instrument team. Adaptations made for Swedish preschool settings were agreed and used also in Portuguese preschool settings. Adaptations were programmed into the observational software by the U.S. team. For more details on the adaptations, see the results section for article I, on the relevance of the COP and TOP.

Inter-rater reliability observations for the COP and TOP were performed around the same time as the country respective data collection in article I. In Sweden, the inter-rater reliability was assessed in September and November in two preschools not participating in the study. In Portugal and in the U.S., inter-rater reliability observations were performed on a set of the participating preschools; 23% in Portugal, and 15% in the U.S. The two observers coded the same 3-second time windows. See the results sections of article I for details on the inter-rater reliability.

### 9.5.2. *Data Collection*

#### Article I

In Sweden, observational data collection took place between September and December in 2014 and 2015, respectively (data combined from the two projects TUTI and PEPI). In Portugal, observations were performed between January and March 2016, and in the U.S. between February and March 2017. A total of three female observers performed the COP and TOP in Sweden. Four observers performed the observations in Portugal, and 18 in the U.S. All observers had at least a bachelor's degree in behavioral sciences. All units or classrooms were observed once. Observations started in the morning at official or typical starting time in each country (around 8 am in Sweden and the U.S.; 9 am in Portugal) and ended at official end time or typical end time (around 3.30 pm in Sweden; 12 am for Portugal and 2 pm in the U.S.). All countries aimed for 20 observational sweeps per child across the day. Sweden had a mean observational sweep per child of 16.52 ( $SD = 6.65$ ), Portugal 20.87 ( $SD = 2.17$ ), and the U.S. 20.09 ( $SD = 3.35$ ). The number of sweeps was a bit lower and varied more in Sweden due to more time spent on identifying each child before observation, as preschool spaces are typically larger, especially outdoors, coupled with children's individualized preschool schedules. In all

countries, only children with informed consents were observed, except in the Swedish TUTI project (see the section on ethical considerations). This meant that an overall 82% of the children present that day were observed in Sweden, and 29% of the children in Portugal, whereas all children present at the observational day were observed in the U.S. Child and preschool background data was collected around the same time as the observational data collection in the respective country.

### Article II

The data collected for article I was also used for article II. Observational data was collected between September and December in 2014 and 2015, respectively.

### Article III

The Swedish COP data from article I was combined with an additional timepoint of data performed between January to June 2016 in Swedish preschools (PEPI project). Observers remained the same as in article I. Child background data was collected both in the fall and spring seasons in relation to the observation data collection. Child background data from the spring season was used in article III to identify additional children considered to have SEN.

## 9.6. Data Analyses

The COP individual observations of preschool children were used in all three studies, as were child and preschool background data. TOP observations of teachers were used only in article I, and II. Additional details about the data analyses are provided in each journal article.

Article I: Descriptive statistics (including calculations of conditional probabilities).

Article II: Descriptive statistics (including calculations of conditional probabilities), and paired samples *t*-test.

Article III: Agglomerative K-means cluster analysis with Ward's method. The eight clusters were compared using the chi-square test of independence and the Kruskal–Wallis  $H$  test. Post-hoc pairwise comparisons were made using the Chi-Square test of independence with Bonferroni correction, and the Dunn–Bonferroni test.

Note that in article II and III, the engagement scale was collapsed from a 5-level scale to a 3-level scale (from 1 *low* to 3 *high*) to improve the inter-rater reliability. Exact percentage agreement of the 3-level scale was 72%, Cohen's kappa = .53, and one-way random Intra Class Correlation (ICC) = .843.

# 10. Ethical Considerations

In this section, the ethical considerations applicable across the process of the dissertation are presented according to the phase of the research (Greig et al., 2013).

## 10.1. Before Data Collection

For the main part of this dissertation, Swedish data from the two larger projects, PEPI, and TUTI, was used. The author only took active part in the PEPI project, while a co-author (M.S.) for two of the articles in this dissertation (I, II) was involved in the TUTI project. The projects were approved by the Regional Ethical Review Board in Linköping, ReferenceNo. 2014/479-31, and 2012/199-31, respectively. PEPI was granted by the Swedish Research Council, and TUTI was granted by FORTE and the National Board of Health. Both projects aimed to investigate relationships between child functioning and environmental characteristics. Therefore, the aims of the studies in this dissertation fitted with the aims of the original projects.

Regarding data from the three countries (article I), researchers in the respective countries were responsible for obtaining approval by an ethical committee, making sure informed consents were obtained, and adhering to any local ethical considerations. In Portugal, The Portuguese Data Protection Authority and the Committee for Monitoring Studies in Education Settings of the General Direction of the Ministry of Education approved the measures and data collection procedures used in Portugal, and informed consent was obtained from preschool directors, preschool teachers, and families. In the U.S., all participating classrooms were part of the Preschool Development Grant-Expansion (PDG-E) program funded by the U.S. Department of Education. Funding was awarded to the Tennessee State Department of Education which initiated an evaluation of the program. The state department needed an independent evaluator to examine classroom activities. The COP and TOP instrument team at Vanderbilt University was contracted to perform the evaluation. The role as a contracted evaluator meant that the Vanderbilt

Institutional Review Board classified the work as non-research. Consents for children were not required as the evaluation was initiated by the state.

To address the aims of articles I and II in this dissertation, the systematic behavioral count observations used in the overall PEPI project were considered appropriate. For considering article III, focusing on child participation, the methodology of behavioral count observations seemed to be less sensitive to the involvement dimension of participation, the experience of participation. Although the COP included a focus on engagement as a subcomponent of involvement, capturing several subcomponents of involvement seem to require an additional qualitative approach to examine children's own experience of participation in the preschool (Ritoša et al., 2023b). Indeed, listening to the voices of young children on matters that concern them are very important in research for ethical and methodological reasons. At the same time, researchers stress that children, especially very young ones, should not be actively involved in research if there are other, simpler, and non-obtrusive ways to answer a research question (Greig et al., 2013). As the research question of article III could appropriately be answered by a quantitative observational design, this approach was therefore considered best.

The data collection procedures were somewhat different in the PEPI and TUTI projects. In the PEPI project, only observational data from children with informed consent was collected, in line with decisions by the ethical review board. In the TUTI project, observational data from all children in the preschool unit was collected (both children with informed consent and children whose parents did not actively object to participation) based on the reasoning that children lacking informed consent would be anonymous after completion of the observational data collection (informally known as passive consent). This procedure was approved by the ethical review board. However, in TUTI, no personal data was linked to the observational data other than gender (clothing characteristics were noted to enable the observations but was removed immediately after completion of the observation and before observational data was exported to Excel). The main reason for the use of passive consent in TUTI was that the expected rate of non-participants would be too high using informed consent which would seriously threaten the

validity of the findings. No other personal information was collected from the children without informed consent.

Oral and written information about the aim of the study and the data collection procedures were provided to all legal guardians/parents and preschool teachers in the respective preschools. In PEPI, this information was provided at original parental meetings in the preschool. If the preschool teachers wished, and was allowed to by the preschool director, the project researchers also met with them on beforehand. In the project, the author was the main responsible for staying in contact with preschool directors and selected preschool teachers to arrange for the project researchers to inform preschool teachers and legal guardians at the original parental meetings in the preschool. This suggestion came from preschool teachers themselves and appeared to increase child participation in the project. Legal guardians received pre-stamped envelopes at the meeting so that they could decide about participation later. Discussions with the preschool teachers informed the use of written informed consents in Arabic, in addition to Swedish and English. Translations into additional languages were, unfortunately, not possible due to economic restrictions. Legal guardians and preschool teachers were informed that they had the right to withdraw from participation without having to provide any reason or without receiving any reprimands. No economic motivations were provided to participants.

Preschool teachers were further told by the researchers that they could inform the preschool children about the observational visits of the researchers beforehand. Preschool teachers received posters with photos of the observers and information about when observations were due. The posters were visible to everyone entering the preschool.

## 10.2. During Data Collection

At the time of observation, preschool teachers informed the children during their first morning circle time about the researchers' passive role during the day. They told the children that the researchers wanted to see what they were playing with, and that they made notes about it on their tablets. They further informed the children that the observers would not speak to them, and that the observers were not teachers. If the children needed help with anything, they

were informed to direct the request to the preschool teachers. Children were also informed that the researchers had no games on the tablet computers (to reduce interest in the tablets). During the observations, one child in the PEPI project expressed by her body language that she did not want to be observed, which was respected. No observations were performed during diaper change/toileting.

### 10.3. After Data Collection

In article 1, raw data from the respective countries was never shared among researchers in the involved countries. Sharing data outside the European Union (EU) would constitute problems in relation to the EU General Data Protection Regulation (Regulation 2016/679) and questions regarding ownership when data is transferred to countries outside of the EU. It was decided that each country would be responsible for the handling of their country data, analysis, and communication.

As soon as possible after the data collection completion in PEPI, approximately 6 months, the preschool teachers, directors, and legal guardians in the preschool received written feedback concerning their specific preschool on a group level, in relation to the total sample average, as promised beforehand. Preschool teachers were encouraged to contact us with any further questions related to the result dissemination. Two recipients made use of this possibility. At a popular science day, “Forskarfredag” [“Researchers’ Friday”], the preliminary results of the project were presented. Information about the project was also disseminated on what was called an Extra Rolig Dag [Extra fun day], arranged by the research environment CHILD (February 29, 2020), on UPPTECH science center in Jönköping. Participating preschools and legal guardians were sent invitations to this event. Article I and II were further published open-access and meta-data is available at Swedish National Data Service (see the articles for more details) in accordance with the Open Science movement and the FAIR research data principles.

# 11. Results

In this section, a summary of the results for each article (I, II, III) is provided.

## 11.1. Article I

The aim of article I was to evaluate the within-country applicability, i.e., relevance of two systematic observation measures (COP and TOP) primarily based on a behavioral count approach focused on individual child and teacher behaviors, and to examine preschool practices in Sweden, Portugal, and the U.S., as they reflect each country's ECEC goals, organization, and educational philosophies.

### 11.1.1. *Relevance of the COP and TOP*

To ensure that the COP and TOP measures captured the real experience of Swedish preschools, the measures were first pilot tested in Swedish preschools. Based on the pilot-testing, adaptation needs were discussed by the national and international research team to ensure that the adaptations were kept to a minimum and equivalent across countries, but at the same time ensured meaningfulness in all countries (Hui & Triandis, 1985). The adaptations related to (a) greater and different use of outdoor space, (b) settings including children with disabilities, (c) mixed age-group units including toddlers. The adaptations mainly concerned extending observations to the outdoor environment and adding relevant examples to already existing codes. The validity of the adapted measures was pilot tested by examining the frequency of occurrence of all available codes. Although some codes appeared infrequently in Swedish preschool settings (e.g., worksheet as material; teachers assessing children as a teacher task) they were still considered valuable to capture the preschool realities in Portugal and the U.S. Keeping these codes was judged not to impact the validity in capturing the reality of Swedish preschools and was therefore kept. After additional testing, the researchers concluded that the adapted measures captured relevant child and teacher behaviors and were relevant for use in Sweden and in Portugal (the measure had been developed and tested in U.S. already).

### 11.1.2. Sweden Results

#### Inter-Rater Reliability

The inter-reliability results for Sweden showed an adequate degree of reliability across the COP and TOP categories, except for the rating scale variables of child Level of Engagement, Teacher Level of Instruction, and Teacher Tone. The overall exact agreement for COP was 80.3%, and the average Cohen's kappa was .71. For TOP, the overall exact agreement was 84.9%, and Cohen's kappa was .61. Level of Engagement showed an exact agreement of 60.8%, Cohen's kappa of .50, and a one-way random ICC of .003. Teacher Tone had an exact agreement of 79.0%, Cohen's kappa of .11, and ICC of .39. Teacher Level of Instruction had an exact agreement of 80.7%, Cohen's kappa of 17.4, and ICC of .39.

#### Preschool Practices

The results on preschool practices, focusing on a total of nine practices, showed that for children in the participating Swedish preschools, the most common *schedule* or activity setting was free play, including free play in outdoor spaces (57%). Whole group led by a teacher took place in 8% of the observations, while whole group transitions (e.g., waiting or transportation) occurred for 13%. Children were observed with math and literacy focus (*academic focus*) for 3% and 7%, respectively. As for *activity complexity*, non-sequential learning tasks (i.e., not following a predetermined set of steps; open-ended activity) were common (34%), while sequential learning tasks (following a predetermined set of steps) were less common (11%). In terms of *social learning*, associative interactions were common (19%) while cooperative interactions were less so (3%). In terms of children's *level of engagement* in learning-related activities (i.e., excluding mealtime, transitions, nap) the average rating was 2.80 (scale 1 *low* to 5 *high*). Concerning children and teachers *talking and listening*, children talked in about one-third (29%) of the observations, but this talk was quite seldom directed to teachers (5%). Teachers talked in about half (51%) of the observations and listened to children in 5% of the observations. Teachers provided *instruction* or teaching in about one-fifth (17%) of the observations, while the rating of teachers' *level of instruction* when instructing was on average 1.55 (scale 1 *low* to 4 *high inferential*). As for *emotional climate*, the

teachers generally provided two behavior approvals for each disapproval towards children and displayed a neutral/flat tone ( $M = 3.25$ , scale 1 *extremely negative* to 5 *vibrant*).

### 11.1.3. Portugal Results

#### Inter-Rater Reliability

Inter-reliability results for Portugal showed an excellent degree of reliability across the COP and TOP categories. The overall exact agreement for COP was 94.7%, and the average Cohen's kappa was .91. For TOP, the overall exact agreement was 97.2%, and Cohen's kappa was .94. ICCs for the rating scale variables showed a value of .93 for child Level of Engagement, .91 for teacher Tone, and .99 for teacher Level of Instruction.

#### Preschool Practices

The results on preschool practices, focusing on a total of nine practices, showed that for children in the participating Portuguese preschools, the most frequently observed *schedule* was whole group led by teachers (47%). Free play indoors occurred in 12% of the observations, and group transitions in 10%. Children were observed in math and literacy activities (*academic focus*) for 4% and 9%, respectively. In terms of *activity complexity*, children more often displayed sequential activities (31%) than non-sequential activities (19%). *Social learning* was characterized by associative interactions (11%) while cooperative interactions rarely occurred (3%). Children's *level of engagement* in learning opportunities (i.e., excluding mealtime, transitions, nap) was on average 2.90 (scale 1 *low* and 5 *high*). Highest engagement levels were noted when small groups and centers were used simultaneously ( $M = 3.34$ ) and in centers only ( $M = 3.05$ ). Concerning children and teachers *talking and listening*, children talked in about one-third (36%) of the observations and most of this talk was directed to a teacher (26%). Teachers talked in more than half (55%) of the observations and listened to children in 11%. Teachers provided *instruction* or teaching in more than one-third (37%) of the observations and their *level of instruction* when instructing was between low and basic level ( $M = 1.37$ ; scale 1 *low* to 4 *high inferential*). Indicators of *emotional climate* showed that the teachers' ratio of providing approvals to disapprovals towards children's behaviors approached 1:3. Teacher tone was

on average flat towards pleasant ( $M = 3.43$ ; scale 1 *very negative* to 5 *vibrant/enthusiastic*).

#### 11.1.4. United States Results

##### Inter-Rater Reliability

The inter-reliability results for the U.S. showed a high degree of reliability across the COP and TOP categories. COP had an average of 85.9% exact agreement, and a Cohen's kappa average of .80. TOP categories had an average of 86.7% exact agreement, and an overall Cohen's kappa of .75. ICCs for the rating scale variables showed a value of .86 for child Level of Engagement, .54 for teacher Tone, and .87 for teacher Level of Instruction.

##### Preschool Practices

The results on preschool practices, focusing on a total of nine practices, showed that for children in the participating U.S. preschools, the most common *schedule* was group transitions (34%), followed by teacher-led whole group (25%). Free play indoors occurred for 14% of the observations. Children were observed with math and literacy (*academic focus*) for 6% and 15%, respectively. In terms of *activity complexity*, sequential activities occurred frequently (20%), and non-sequential activities were noted for 9% of the observations. *Social learning* in terms of associative (5%) and cooperative interactions (1%) was infrequent. Children's *level of engagement* in learning opportunities (i.e., excluding mealtime, transitions, nap) was on average 2.80 (scale 1 *low* to 5 *high*). The highest engagement levels were noted in free play ( $M = 2.93$ ) or free play and simultaneous small group/s ( $M = 2.94$ ). Concerning children and teachers *talking and listening*, children talked in about a quarter (23%) of the observations, and this talk was rarely directed to a teacher (3%). Teachers talked in more than half (58%) of the observations and listened to children in 10%. Teachers provided *instruction* in a quarter (24%) of the observations, and the *level of instruction* when instructing was on average between low and basic level ( $M = 1.80$ ; scale 1 *low* to 4 *high inferential*). Indicators of *emotional climate* showed that the ratio of behavioral approvals to disapprovals was 1:2, and the teacher tone was between flat and pleasant ( $M = 3.26$ ; scale 1 *very negative* to 5 *vibrant/enthusiastic*).

### 11.1.5. *Conclusions*

The COP and TOP instruments captured culturally relevant behaviors in the preschool settings in Sweden, Portugal, and the U.S, although some culturally specific variables may need to be added. Support for the inter-rater reliability of the COP and TOP was found for the behavioral count variables, but less so for the rating scale variables in the Swedish preschool setting.

The behavioral descriptions of children and teachers reflected the ECEC values and current discussions concerning the education and care of young children in each country. For further international work, behavioral count measures, such as the COP and TOP, can provide comprehensive descriptions of preschool settings employing minimal value judgements on the behaviors observed. Considering that behavior counts are expensive to collect, the current results and future explorations of this data could guide future studies and initiatives taken by ECEC professionals.

## 11.2. Article II

The aim for article II was to describe the characteristics of Swedish preschool environments and activities for children and teachers. A second aim was to investigate differences in child level of engagement in indoor and outdoor free play. The research questions were the following:

- (1) What are the characteristics of children's preschool environment and activities?
- (2) Is there a significant difference in child level of engagement in indoor and outdoor free play?
- (3) What are the characteristics of teachers' preschool environment and activities?

### 11.2.1. *Children's Everyday Environments and Activities*

The results showed that across the observational day, indoor free play was the most common *activity setting* or schedule for the children (36%) followed by outdoor free play (21%). Children's *location* was often group rooms (43%) or

outdoors (24%). Routine-based activities, e.g., dressing, eating without interaction, and forced wait time, occurred in one-third (31%) of the observational day. Children were mostly in *proximity* to a small group including a teacher (33%), followed by a small group of children only (22%). Children *talked to or listened* to another child (18%) as much as to a teacher (16%). Parallel play (25%) was the most common *interaction* state, followed by associative play (19%), and children were observed to be unoccupied in 9% of the observations. Toys/games was the single most common *material* used by children (23%), and the most common content *focus* was “other”, including non-pretend play, construction, art, and music (17%), followed by drama/pretend play (12%).

### 11.2.2. *Teacher’s Everyday Environments and Activities*

Teachers were typically in *proximity* to a small group of children (32%), or by themselves (24%), and teachers mostly *talked to or listened* to a single child (32%), followed by a group of children (14%). Teachers engaged in varied *tasks*, but their main task was managerial (33%), followed by instructing (17%), and monitoring (10%). When teachers instructed, they used varied *materials* and *focused* on varied contents.

### 11.2.3. *Level of Engagement in Indoor and Outdoor Free Play*

For article II, the engagement scale was collapsed from a 5-level scale to a 3-level scale (from 1 *low* to 3 *high*). Children’s level of engagement was significantly higher in indoor free play ( $M = 2.04, SD = .29$ ) compared to in outdoor free play ( $M = 1.94, SD = .28$ ),  $t(76) = 2.62, p = .011$ , 95% CIs: [.02 - .14].

### 11.2.4. *Follow-Up Results*

Based on the significant difference in children’s level of engagement in indoor and outdoor free play, descriptive (non-inferential) follow-up analyses were made to examine differences in child and teacher activities for indoor and outdoor free play that could potentially help to explain the engagement difference. The results showed that child associative interactions were more common in outdoor free play (38%) than in indoor free play (27%), although

generally children were more unoccupied in outdoor free play (14%) than in indoor free play (10%). In terms of content focus, children were more often observed with a focus on pretend play (23%) and on gross motor activities (22%) in outdoor free play compared to in indoor free play (pretend play 18%; gross motor 5%). As for teachers, the managerial task was more common in indoor free play (15%) than in outdoor free play (5%), while monitoring was more common in outdoor free play (23%) than in indoor free play (8%). The extent of teacher's instructing appeared similar across indoor (8%) and outdoor free play (9%). Teachers were more often observed in proximity to a small group of children in indoor free play (35%) compared to in outdoor free play (25%). Teacher's listening to a single child appeared similar across indoor and outdoor free play (4%).

### *11.2.5. Conclusions*

The generally high level of free play indicates that children have a rather high level of agency and choice of activities in the participating Swedish preschools. Still, the children's level of engagement in free play seem to differ depending on whether the free play occurs indoors or outdoors. Across all activities, children seem to interact verbally as much with peers as with teachers. The teachers perform many different tasks across a preschool day, with managerial tasks being the most common.

The results reflect the challenges and possibilities that emerge with a preschool curriculum stressing the importance of both child agency, play, and teacher-led instruction. Future research should examine how teachers can use the affordances of free play and the interaction between children to create a wholeness of play and learning in Swedish preschools.

## **11.3. Article III**

With an interest in the within-group variance in child participation, the aim of article III was to explore the observed patterns of participation in preschool free play for a sample of 3–5-year-old Swedish children using cluster analysis, and to describe the characteristics of the resulting clusters in terms of child and preschool unit characteristics.

### 11.3.1. *Patterns of Observed Child Participation*

For article III, the engagement scale was collapsed from a 5-level scale to a 3-level scale (from 1 *low* to 3 *high*). Based on four observed child participation-related variables (child Level of Engagement, Pretend Play, Associative/Cooperative Interactions, and Proximity to a Small Group Including a Teacher) eight distinctive and meaningful patterns of children's observed participation were identified that could be ranked from very high to very low participation. Four of the clusters indicated average-to-very-high observed participation, while two clusters indicated low-to-very low observed participation. The two clusters with low-to-very-low observed participation were labelled *Low participation, high proximity to a small group including a teacher* cluster, and *Very low participation, low proximity to a small group including a teacher* cluster.

### 11.3.2. *Child and Preschool Unit Characteristics by Clusters*

Children in the cluster *Low participation, high proximity to a small group including a teacher* more often came from preschool units with significantly more SLL children than two of the high participating clusters (*High participation; More socially complex*). The cluster *Very low participation, low proximity to a small group including a teacher* had significantly more children who were SLLs than the cluster *More socially complex*, and the children came from preschool units with a significantly higher number of resource personnel than four of the clusters ( $i = 1, 2, 4, 7$ , see article III). No significant differences were noted in the number of children with SEN across the clusters, although they were less represented in the higher participation clusters. A significant age difference was noted for the cluster *More socially complex* with children being on average 6 months older than children in the cluster *Average+* (both considered to have high participation). No significant gender differences were noted across the clusters.

### 11.3.3. *Conclusions*

The results indicate that many children in the sample could be considered to have average-to-very-high observed participation. Still, two clusters of children indicated low-to-very-low observed participation. Children

displaying low observed participation were often physically close to teachers and therefore seemed noticed by preschool teachers, while children displaying very low observed participation appeared unnoticed. More SLL children and children from preschool units serving a larger number of SLL children tend to characterize the participation patterns of these two clusters. Some children seem to need active and promotive support by teachers to participate in free play. Preschool teachers need to identify these children and stay in proximity to them. They also need to reflect on how their proximity in free play influence the participation of children differently, and how they can provide support when being close to the children.

Using a person-oriented design enabled the identification of children who had lower levels of participation in free play that would likely have remained unseen using a variable-based approach. Variable-based approaches often start the inquiries in predetermined category memberships, such as having a disability, SEN, or being identified as SLL, but neither of these categories could fully characterize the participation patterns identified in this study. Children with SEN were represented in each cluster. The person-oriented approach therefore appears a useful way to study child participation in preschool as an outcome of inclusion.

## 12. Discussion

This section will start with a discussion of the results in relation to each of the dissertation's research questions. Findings concerning the Swedish preschools will be reflected with reference to the Swedish national preschool curriculum, Lpfö 18 (SNAE, 2019). After this, methodological limitations are presented. The discussion ends with conclusions, implications for practice, and suggestions for future research.

### 12.1. Result Discussion

#### 12.1.1. *What are the Variations in Preschool Practices Across and Within Countries?*

##### Activity Settings

The most pronounced variation across the countries related to the dominant activity setting used in preschool. Free play indoors and outdoors were the two dominant activity settings for the Swedish preschool children (article I, II), representing more than half of the observational day, while teacher-led whole group was the dominant activity setting in both Portugal and the U.S.

In line with the bioecological theory (Bronfenbrenner & Morris, 2006), there seems to be a link between the dominant activity setting and the cultural views on the goals for ECEC (macro-level factors), such as the social pedagogy tradition and the early education tradition, respectively, as evident in the ECEC curricula or the general ECEC goals of each country. In Sweden, the cultural views are reflected in the national preschool curriculum, Lpfö 18 (SNAE, 2019), governing all preschools. This input-based curriculum (OECD, 2012) emphasizes the opportunity for children to play and explore, both indoors and outdoors, and that learning happens in the interaction between adults and children, between children, and when children explore materials and environments. Providing children with a diversity of materials and contents are stressed, in line with the view on holistic development. In Portugal, the national preschool curriculum (Silva et al., 2016) combines

input-based and output-based content (Taguma et al., 2012), which may partly explain the high use of teacher-led whole groups. Based on the curriculum, however, the expectation would be a balanced use of activity settings. In the U.S., the high resulting level of teacher-led whole groups is not surprising considering the general goal of compensatory early childhood education and output-based curricula focusing on what children should learn (Nesbitt & Farran, 2021; OECD, 2012). As such, these findings support the link between cultural views concerning the goals for ECEC and the dominant activity setting.

### **Child-Child Interactions, and Academic and Play Content**

Variations in the dominant activity types seem, in turn, related to the variability in other preschool practices, although this remains to be confirmed. For example, Swedish preschools had a relatively high proportion of child-child interactions (article II), and associative interactions (article I), likely related to the fact that they spent more time in free play. Portugal and the U.S. had less associative interactions, but more sequential activities than Sweden (article I), likely related to the higher level of teacher-led whole groups. Children's focus on math and literacy content also varied somewhat across the countries. Portugal had slightly higher proportions of child literacy and math focus than Sweden, and the U.S. was characterized by a doubled proportion compared to Sweden (article I). Children in Swedish preschools also spent much time outdoors (article II), and their content focus was often "other", including construction, art, music, and non-sophisticated play, as well as pretend play (article II). Although these contents were not documented for Portugal and the U.S. in article I, they were likely not as common as in Swedish preschools, considering their high use of teacher-led whole groups. It should be noted, however, that as the observations complied with the typical length of the preschool day in each country (i.e., 7.5 hours in Sweden, 3 hours in Portugal, and 6 hours in the U.S), results across countries may be non-comparable in a strict sense. The discussion therefore focuses on tendencies rather than the exact numbers.

### **Teacher Instruction, and Teacher Managerial Tasks**

Teachers appeared to have different roles in Swedish preschools compared to Portuguese and U.S. preschools. Although teachers were observed instructing

in all countries, the proportion of teachers instructing was much more frequent in the Portuguese and the U.S. preschools compared to the Swedish preschools (article I). This was found despite a broad definition of teaching or instructing, i.e., any learning activity during which the teacher is interacting with a child or children, which could be considered as appropriate for the Swedish social pedagogy approach to teaching in preschool (e.g., Pramling et al., 2019). The different proportion of teachers engaging in instruction in each country might reflect the different emphasis placed on teaching in the curricula or in the general goals of ECEC. The high amount of teacher instruction reflects the general goal of school readiness in many ECEC compensatory programs and curricula in the U.S, and somewhat in the Portuguese ECEC policy. The national Portuguese preschool curriculum (Silva et al., 2016), however, also emphasizes the child as an active learner rather than a passive receiver of instruction. The lower proportion of teacher instruction in Swedish preschools may reflect the ECEC general goals of holistic development in the national curriculum, Lpfö 18 (SNAE, 2019) stating that preschool education should be based on children's interests, exploration, and peer interactions, to promote preschool as the start of later learning. Another potential contributing factor for the relatively low proportion of teacher instruction in Swedish preschools is that the preschool teacher data included both certified preschool teachers and other personnel, like child-minders. It should be noted however that both certified preschool teachers and assistants were included in the data for Portugal and the U.S., making the data broadly comparable to the Swedish data. Maybe the proportion of teacher instruction would have been larger had only certified preschool teachers been observed. Indeed, the responsibility of certified preschool teachers for teacher-led instruction has been strengthened in the current curriculum Lpfö 18 (SNAE, 2019), although it states that teacher-led instruction should be provided by all personnel caring for the children. At the same time, the data collection took place before the introduction of the current curriculum, Lpfö 18 (SNAE, 2019), and the former curriculum, Lpfö-98 revised 2010 (SNAE, 2011) provided less strict formulations around teaching. It would be interesting to further examine if the proportion of teacher instruction has increased since the introduction of the current curriculum (SNAE, 2019).

Preschool teachers in the Swedish preschools displayed a large variety of teacher tasks, e.g., instructing, monitoring, administrating, where managing was the most frequent task (article II). The high variation in teacher tasks is understandable in relation to the mixed ages of children including toddlers, and the focus on the integration of care and education in the curriculum, Lpfö 18 (SNAE, 2019). A high level of teacher managerial tasks in Swedish preschool is not surprising, considering the centrality of children's play, child agency, and the importance of providing activity variation (SNAE, 2019). The physical layout of the preschool with several group rooms also demands a focus on managing. Managerial tasks also include organizing the children into smaller groups (Nasiopoulou, 2020) common in Swedish preschools (e.g., Finnman et al., in press), transitioning children between various rooms, locations, and activities, and providing children with the materials of their choice. Similar teacher tasks were found in a Norwegian preschool study (Boe et al., 2022), where teachers were found organizing, facilitating core areas, motivating, and supporting the children, in line with the social pedagogy tradition.

Overall, the preschool practices in Sweden largely reflect the social pedagogy tradition, whereas the Portuguese and the U.S. preschool practices reflect the early education tradition (e.g., Einarsdottir et al., 2015; Kuusisto & Garvis, 2020; OECD, 2012; Vallberg Roth, 2013). The findings show that preschool practices vary a lot across countries, and that cultural ideas and values are largely reflected in the country's preschool practices. Most likely, preschool practices are more similar within countries adhering to the same ECEC tradition. In relation to the bioecological theory (Bronfenbrenner & Morris, 2006), the findings mean that the microsystem of preschool can look very different from an international perspective, and that knowledge of the macrosystem, i.e., the societal and structural conditions for ECEC appear relevant for understanding country variations in microsystems. Variations in microsystems also portray the idea that the proximal processes important for children's health, development, and learning (Bronfenbrenner & Morris, 2006) might differ according to country or culture.

However, not all variability in preschool practices can be attributed to differences across countries. The means and standard deviations in the preschool practices in each country (article I, II), show that for several preschool practices, the within-country variance is large in all three countries, and tend to be similar to the between-country variance. These practices include teachers providing behavioral approvals and disapprovals, teachers listening to children, children displaying cooperative interactions, and children focusing on math. The large within-country variation indicates that these practices are not as influenced by macrolevel factors, such as country/cultural ideas, but by something else. One explanation for the apparent within-country variation could be within-unit variation, as the observations were performed across one day only (article I, II), rather than across multiple days, and practices may vary for different weekdays. The observations might also have captured a non-typical picture of the preschool practices in the preschool, rather than a typical picture. At least in Swedish preschools, the weather, and the number of children and can differ much on different days. As the children and teachers present in the preschool are co-constructors of the microsystem (Bronfenbrenner & Morris, 2006), changes in co-constructors can be factors that impact practices. However, it is noteworthy that in terms of children's focus on math and literacy, there were preschools in all three countries where none of the children were engaged in these activities for a whole preschool day. It seems unlikely that the same preschool unit would display a totally different picture of child math and literacy focus on a second day of observation, although the possibility cannot be excluded.

The within-country variation in preschool practices could also reflect exosystem differences (Bronfenbrenner & Morris, 2006) within a country which in Swedish preschools could represent differences in the municipality management of the preschools, or the socioeconomic status in the preschool area. Relating more specifically to the structure-process-outcome framework of preschool quality (EASNIE, 2017), differences in preschool practices could further relate to preschool structural quality, such as the number of certified preschool teachers and the proportion of children being SLL in the preschool. The Swedish Schools Inspectorate (2018) and others (Persson, 2015) indicate that Swedish preschools have problems with equal quality even though Swedish school law (SFS 2010:800) also governing preschool, stresses the

importance of equity in education by providing equal access, equal quality, and considering children's various needs and circumstances. Notably, the standard deviation for teachers instructing was larger in Swedish preschools than in Portugal and the U.S. (article I), indicating more variability in the Swedish sample. The variability could reflect the Swedish preschool debate of the meaning of teaching in preschool (e.g., Sheridan & Williams, 2018; Pramling et al., 2019), and teachers' different attitudes to teaching, such as rejection of "schoolification" of preschool (Persson et al., 2022), or differences in teaching skills and education. At the same time, the Lpfö 18 (SNAE, 2019) stresses the need for teacher-led instruction, where the teacher is active in the child's learning process, more so than in previous versions of the curriculum (Einarsdottir et al., 2015). The variation in teacher instruction could potentially be related to the variation in quality of Swedish preschools (Persson, 2015; Swedish Schools Inspectorate, 2018), although it remains to be investigated.

### *12.1.2. How Do Variations in ECEC Goals and Preschool Practices Affect What is Considered Preschool Quality?*

The results of articles I and II indicate that the general goals for ECEC vary between preschools adhering to the early education tradition and the social pedagogy tradition, and that preschool practices largely reflect these traditions. These variations likely have implications for what can be considered preschool quality, as quality in preschool is not something that stands alone but is necessarily related to the child outcomes it aims to support (Farran & Nesbitt, 2019). If countries have different views on important child outcomes, and these outcomes are each supported by different preschool practices, some variation can be expected in the practices considered as quality practices across countries. At least between preschools reflecting the early education tradition and the social pedagogy tradition, respectively. If the desired outcomes vary, most likely, so do the preschool quality indicators (Burchinal et al., 2021).

## Context-Specific Quality

Most countries have adopted an early education perspective on preschool quality by the extensive use of measures developed in the U.S., such as the CLASS (Pianta et al., 2008) and ECERS (Harms et al., 2014), that mainly although not exclusively favor practices that support child academic outcomes. This means that preschool practices that may support culturally valued, or context-specific child outcomes face the risk of being overlooked when adopting a measure developed within an early education tradition. In the social pedagogy tradition, the focus is on a holistic repertoire of child outcomes (OECD, 2012). In the Swedish preschool curriculum, Lpfö 18 (SNAE, 2019), children should be given opportunities to learn cognitive, social, emotional, and motoric abilities. This includes developing fantasy and creativity, independence skills, like undressing, using the bathroom, washing hands, and social skills, like turn-taking, sharing, and communicating, and developing emotional abilities, like integrity and self-trust. These desired outcomes and the processes to support them might not be captured as well with instruments developed within an early education tradition. Garvis et al. (2017) have for example reflected on the cultural relevance of the ECERS (Harms et al., 2014) in Swedish preschool contexts, and suggested that items in several sections demand adaptation to Swedish preschool contexts, namely regarding the physical environment and room organization, interaction and supervision, as well as learning activities and language development, where the ECERS appears to have a different value-base than the Swedish ECEC tradition.

The early education perspective of ECEC was even noted in the COP and TOP behavior count instruments used in this dissertation, although both instruments have a broad perspective on preschool practices. They generally focus on behaviors relevant for children's school readiness – not only, but for the most. Behaviors relevant for Swedish preschool settings concerning holistic development, and democratic values, such as focusing on learning independence skills, were not in focus. Many U.S. preschool quality instrument's view teachers and their emotional and instructional interactions with children as essential. But the high level of associative interactions (article I) and child-child interactions (article II) in Swedish preschools suggest that peers and the child group also have a role in quality of preschools as well as

the central task of teacher managing (article II; Slot et al., 2016), although this remains to be studied. Additionally, processes to support child participation have been suggested as key process quality indicators of Swedish preschools (see Johansson & Sandberg, 2010; Sheridan, 2007).

In sum, careful considerations to context are needed when selecting and adapting instruments to measure preschool practices and preschool quality. The importance of considering context and population when adapting measures or interventions to other contexts or populations, and the fidelity-adaptation tension involved, have recently been re-strengthened, suggesting an equal balance between high fidelity to original protocols and manuals and adaptation to fit the needs of the population (Castro & Yasui, 2017; Lee et al., 2023). Or as stated by Garvis et al. (2017, p. 591):

To a large extent, the philosophy, structure and content of the scale have to be in line with a country's overall goals and intentions with preschool. On the other hand, if the adaptation is too contextualized to a specific country, the scale loses its comparative function and [sic] with other countries.

Future research should investigate further what constitutes preschool quality in Swedish preschools (Garvis et al., 2017), and perhaps more generally in preschools reflecting the social pedagogy tradition. Considering the Swedish preschool for all children, additional indicators related to inclusion also need to be considered (Næsby, 2021). Preferably, the view on quality is also suggested to be broadened to include perspectives of ECEC stakeholders, children, families, preschool teachers, researchers, and professionals (Edwards, 2021). Finally, it should be stressed that before any practices can be claimed to be process quality indicators, their relation to culturally meaningful child outcomes need to be established (Farran & Nesbitt, 2019).

## Universal Quality

Common interests across the social pedagogy and early education traditions do exist, such as for children's academic learning, although the specific emphasis on academic learning varies. Therefore, it is encouraging to see that children in the Swedish preschools were provided with academic learning opportunities, such as math and literacy (article I), despite a dominance of free play. It indicates that academic learning opportunities are provided and created in free play, and that a major focus of teacher-led whole groups are

not needed for children to focus on academic content. Another positive finding was that preschool teachers provided more behavioral approvals than disapprovals (2:1) in Swedish preschools. The relation between the two is important as it reflects the emotional quality of the preschool which previously has been found to predict children's engagement in Swedish preschool settings (Castro et al., 2017). The European CARE project (e.g., Moser et al., 2017; Slot et al., 2016) has also investigated a framework of quality and well-being indicators in European countries and performed culturally sensitive quality assessments. Based on this, potential universal process quality indicators have been proposed (Slot et al., 2016; European Council, 2019). These include teachers having dialogues with children, using higher level inferences, and listening to children. These practices were targeted in article I, and the results showed that instances of open questioning by teachers, and teachers listening to children was not high across the countries. It was higher in Portugal and the U.S. than in Sweden, but this could be because of extensive rote responding by children in Portugal and the U.S., as they spend more time in teacher-led whole group formats. But rote responding by children is not what is meant by the commitment to listen to children (European Council, 2019). The low proportion of teachers listening to children in Swedish preschools are surprising, considering the Swedish preschool curriculum emphasis on democracy and children having influence over the work methods and content in preschool (SNAE, 2019). Therefore, there seems to be room for improvement in all three countries on the teacher practices of listening to children, having dialogues with children, and posing open questions without a set answer, practices viewed as universal process quality factors.

### *12.1.3. How do Variations in Preschool Environments and Practices Relate to Children's Participation in Activities?*

From article I and II, it became clear that the activity setting is an important semi-structural characteristic of preschool everyday life that sets the frame for what children are attending to, and their level of engagement when being there, as the primary dimensions of participation (Imms et al., 2017). An examination of the practices across the countries in article I indicates that they appear to differ as a function of the activity setting provided. Whether children

were mainly exposed to teacher-led whole groups, as in Portugal and the U.S., or free play, as in Sweden, seemed to define the different activities children could attend. The findings strengthen the view that participation is a highly contextualized concept (Imms et al., 2017), and that the nature of participation, i.e., both what children attend and their level of engagement, differs in different settings. These findings have implications for studying participation and inclusion using a measurement approach (Forsyth & Jarvis, 2002).

## Attendance

In article III, the contextual nature of participation became even clearer when aiming to measure children's attendance or presence in activities as indicators of participation. Although measuring attendance might appear straightforward, it became clear that a selection needed to be made of the activities considered relevant and meaningful for children to participate in. The idea was to measure how often children were present in desirable activities. As such, value judgements appeared inevitable. In article III, the activities chosen to represent children's participation patterns in free play included their attendance in pretend play and associative/cooperative interactions. These activities are related to Swedish societal values, such as the values placed on peer interactions and play in the national curriculum, Lpfö 18 (SNAE, 2019). Value judgements are present also in research on inclusive education, where the goal for children's attendance is often for it to be like that of peers, or the child group or class, i.e., a norm-based judgement. This desire is likely related to the social goal of inclusion and meeting the social needs of all children (Göransson & Nilholm, 2014).

The recognition of value judgements in the measurement of participation leads to the important question of whose values are given priority. Children have their own preferences for what activities to attend to in preschool and might not be the same as what adults prefer for the children. Child agency is generally assumed to support child engagement (European Council, 2019), and one of the main ideas of free play is to give children agency. Although the influence of children's preferences for participation (i.e., what they attend to and how engaged they are) is theoretically recognized in the fPRC, it is still an empirically under-researched aspect of children's participation (Imms et al., 2017). Lessons learned from article III are that assessment of child

participation in preschool is value-based which complicates measurement. The basis for measuring participation in preschool needs to be explicit and careful consideration of perspectives are needed as the meaning of attendance and engagement varies in different contexts and by various informants.

## Engagement

In article I and II, activity settings contributed to a large degree of variance in children's preschool engagement, considered as the engine of child development (Bronfenbrenner & Morris, 2006). This statement is based on the within-country differences in child level of engagement per activity setting (article I), and the significant difference in child engagement between indoor and outdoor free play in Swedish preschools (article II). The findings are in line with previous research (Booren et al., 2012; Coelho et al., 2019; Prykanowski et al., 2018; Vitiello et al., 2012). It might be tempting, after reviewing article I, to conclude that children should be exposed to the activity settings that provide them with the highest child engagement in general. Indeed, increasing the use of teacher-led small group combinations which were infrequently used across the three countries appear worthwhile, based on the positive relation between teacher-led small groups and process quality (Slot et al., 2016). However, it does not appear to be that simple.

Looking at the results of article I across the countries, a pattern emerged in which children appeared to be less engaged in their dominant activity setting. Rather, they were more engaged in the activity settings that happened less often. In all three countries, neither teacher-led small groups nor small groups in combination with free play were common but yielded higher levels of engagement than the dominant activity setting (free play or whole-group, respectively). Although this pattern could be the result of other differences related to country (e.g., child age, time in preschool, teacher's role, free play indoors vs. outdoors), it could also indicate that the act of varying the activity settings – creating novelty experiences for the children – are important to keep children's engagement levels high (Hastie et al., 2018). Maybe there is too much of the same activity setting in the preschools or too long sessions of teacher-led whole groups or free play which means that children lose interest and engagement. Maybe the need for novelty could explain the surprising finding that children's average level of engagement was not the highest in free

play activity settings in Swedish preschools (article I), although research (Coelho et al., 2019; Vitiello et al., 2012) and international recommendations (European Council, 2019) suggest a high use of free play in preschool to promote engagement. There might be a need to vary the activity settings more in Swedish preschools, e.g., by using more teacher-led small groups, or combinations of teacher-led small groups and free play. At the same time, it is sometimes stated that, in relation to free play, enough time should be dedicated for the play theme and engagement to evolve, perhaps into more complex forms of play, like pretend play. This likely demands uninterrupted free play time. It therefore seems to be an issue of striking a balance between providing enough time for play and engagement to evolve, but also varying the activity settings, changing group formats, and utilizing the indoor and outdoor environments to create novelty experiences for the children.

A related explanation to why the engagement was not higher in Swedish preschool free play overall could be the significantly lower engagement in outdoor free play compared to indoor free play (article II). This likely lowered the overall free play engagement and suggests a closer look at outdoor free play. First, it cannot be ruled out that the relatively low inter-rater reliability for child level of engagement influenced the finding, although the collapsing of the scale to a 3-level scale reduced the sensitivity of the scale and decreased the possibility of Type 1 error. The follow-up analysis showed a higher level of child unoccupied behaviors (i.e., clearly not engaged although activities are offered) in outdoor free play, teachers being more distant to children outdoors, and teachers focusing more on monitoring than on managerial tasks. A lower engagement for some children could help explain the relatively small but significant difference in children's engagement level on group level. It could be that the outdoor free play activity setting both creates opportunities for high engagement for some children, but also provide less opportunities for engagement for other children, leading to more unoccupied behaviors. The larger space and more often being in non-proximity to preschool teachers in outdoor free play might make it more difficult for some children to participate. Perhaps this increases the risk for exclusion from peer groups (see Pramling & Wallerstedt, 2019).

The larger distance between children and teachers outdoors is perhaps inevitable, considering generally larger outdoors spaces. But the larger distance might also be a deliberate decision by teachers to provide children with more freedom. In fact, a pedagogy of distance, where the teachers should strive not to disturb children's play (Harper & McCluskey, 2003; Wilcox-Herzog & Kontos, 1998; Wood et al., 2014) has been stated as a characteristic of Swedish preschools (Pramling et al., 2019). A distance approach in preschool education might work well with some children as some children revealed high observed participation in free play (article III) despite (or perhaps because) not being in proximity to a teacher. But the importance of teacher proximity for child participation likely varies between children. Some children might need teachers nearby to facilitate participation in activities (as indicated in article III) which demands preschool teachers who are highly attentive and responsive (Pramling et al., 2019). Either way, there seems to be room for improvement in children's average engagement in outdoor free play.

A related question then emerges, on how reasonable it is to expect children's engagement levels to be high throughout the preschool day. We know that more engagement is generally better than less engagement for health, learning, and development (e.g., Coelho et al., 2023; Williford et al., 2013a; Williford et al., 2013b). But how much engagement is enough and how much is too much? Is there a threshold level for how engaged children can be before their health or learning suffers? Currently, there are no clear answers to these questions, but they are important in relation to Swedish full-day preschools committed to provide children with care, rest, and education. Perhaps low engagement and even boredom in activities might be functional for creativity to grow, although recent studies suggest boredom to be negative for achievement (Camacho-Morles et al., 2021), and for engagement (Xie, 2021). Most likely, high engagement supports continued high engagement (Gustafsson et al., 2021). The questions on the limits and costs of high engagement are important to keep in mind in the continued effort towards increasing children's engagement in activities in preschool, especially in Swedish preschools.

Furthermore, in article II, child-child interactions in Swedish preschools were as high as teacher-child interactions. This suggests that the proximal processes stated in the bioecological theory (Bronfenbrenner & Morris, 2006) for children's participation concern child-child interactions, as much as teacher-child interactions. Recent studies suggest that peer interaction increase the sophistication of children's engagement (Morales-Murillo et al., 2020), and that the increased associative and cooperative interactions that occur in free play with peers drives children's level of engagement (Christopher & Newman, 2022). Sjöman (2018) also found that positive peer interactions can increase the preschool engagement of children despite their hyperactivity, and that the quality of peer interactions explain more variance than teacher responsiveness in the relation between children's hyperactivity and engagement. Child-child interactions therefore deserve more research attention in relation to engagement, but also as potential process quality indicators in preschool (OECD, 2018).

Additionally, the high within-country variation (article I) in the practices of teachers providing behavioral approvals and disapprovals, teachers listening to children, children displaying cooperative interactions, and children focusing on math, likely also have consequences for children's engagement. Almost all these practices have previously been related to a higher level of child engagement in U.S. preschool settings (Christopher & Newman, 2022). The variance was also rather large (article II) in Swedish preschools regarding teacher instruction, teacher administrating, and teacher monitoring. To understand what drives engagement in Swedish preschool settings characterized by free play, future studies should investigate the relationships between children's level of engagement and teacher practices, such as teacher's providing behavioral approvals and disapprovals, teachers listening to children, teacher managerial tasks, and grouping practices. But also, the relation between engagement and child practices, such as the level of associative/cooperative interactions, and math activities.

#### 12.1.4. *How do Variations in Children's Participation in Free Play Relate to Child and Preschool Unit Characteristics?*

From article I and II, it became clear that everyday life in Swedish preschool is devoted to free play to a large extent. How children utilize the opportunities for free play and participation is critical for health, development, and learning. Positively, in article III, most children displayed average-to-very-high observed participation in free play, but the observed participation of two groups of children was found to be low-to-very low. These children were less often observed in associative/cooperative interactions, pretend play activities, and had a lower level of engagement in free play. The two groups differed in the observed participation levels and the *very low* participation group was infrequently in proximity to a teacher, whereas the *low* participation group was frequently in proximity to a teacher. How can we understand these varying participation patterns?

The predictors of children's observed participation in free play were examined on child and preschool unit levels to examine whether the variation in participation among children could be linked to any specific factors. Overall, few predictors were found. Notably, SEN status did not appear as a predictor for child participation. If that had been the case, most children with SEN would have ended up in the two lowest participation-groups. Instead, children with SEN were found across clusters, although a tendency could be seen that children with SEN were less represented in the highest participation clusters, and more represented in the lower participation clusters. Therefore, SEN status does not seem to determine a child's observed participation in free play. This finding is similar to other studies investigating functioning of children with disabilities and SEN using person-oriented methodological approaches (Almqvist, 2006; Andersson et al., 2017; Castro & Pinto, 2015; Lyngnegård, 2018). This finding is encouraging as it suggests that the preschool environments were adapted to fit the needs of children with SEN, indicating functional inclusive processes. Overall, the few predictors found strengthen the view that child participation is determined by the interaction of several child- and environmental factors, and not by single factors, in line with the fPRC (Imms et al., 2017). Suggestions for future research in disability research and related fields are to avoid starting enquiries in certain disability

categories, and instead consider starting at the functional levels or participation of individuals.

At the same time, the findings showed that children who had the lowest observed participation were not the ones identified by the preschool teachers as children with SEN. It could be that the low observed participation of some children was only temporary, and these children were not in the mood for participation on the day/s of the observation. Arguing against this is a recent person-oriented longitudinal study (Gustafsson et al., 2021) showing that young children displaying extreme patterns in mental health indicators (including engagement ratings) at one timepoint, such as indicators being very high or very low, tended to be more stable over time than for children displaying average patterns in mental health at a previous timepoint. This suggests that children displaying the lowest and highest levels of participation are likely more stable over time. But this finding might also depend on the way child engagement was assessed, which in the Gustafsson et al. (2021) study was done using a teacher-rated questionnaire. A recent person-oriented study (Ritoša et al., 2023a) showed that observations of child engagement did not often match the preschool teacher's ratings of child engagement, and the reason for this remains unclear.

Perhaps it is more likely that a low level of participation is not something considered by preschool teachers when determining a child's SEN status, which is why these children were not identified in article III. Sjöman (2018) showed that children rarely got special support if the child's behavior did not disturb the child group or the teachers. The Swedish Schools Inspectorate (2017a) also revealed that two-thirds of the studied preschools provided insufficient knowledge, strategies, routines, and resources for preschool teachers to work with children with SEN. Access to other child specialists varied a lot across the preschools in their study. These problems likely extend to the identification of children with SEN. The collaboration with other child specialists, such as special education teachers, might also work poorly in some preschools. Collaboration with other child specialists has recently been stressed as highly important for preschool teachers to provide adequate support to all children (Finnman et al., in press), and collaboration between child specialists is emphasized by EASNIE (2017) to achieve high inclusive preschool quality.

Moreover, in the *very low* participation group, children were infrequently in proximity to a teacher, which further indicates that these children were invisible to preschool teachers. Perhaps some children are missed if preschools focus too little on individual children (Ginner Hau et al., 2022). It could also be that low participation provides low signal value for preschool teachers to support the children (Almqvist et al., 2018; Williford et al., 2013b). Previous studies (Finnman et al., 2021; Sjöman, 2018) have shown that children's engagement is related to teacher responsiveness, in that children with lower levels of engagement are met with less responsive teachers. This would be problematic considering that participation is stated as the ultimate outcome of inclusive ECEC (Bartolo et al., 2016; Maxwell et al., 2018; Odom et al., 2011), and the Swedish preschool curriculum, Lpfö 18 (SNAE, 2019), stating that children's development and learning should be stimulated in preschool, which requires child engagement (Aydogan, 2012; Farran et al., 2017; Langeloo et al., 2021; Sabol et al., 2018).

Furthermore, had a variable-based methodological approach been used in article III, comparing children with and without SEN, many children with low participation patterns would have remained hidden. These children, based on their very low participation patterns, can be considered to have special education needs. This situation is not in line with the "preschool for all children" intentions in the preschool curriculum (SNAE, 2019). The findings suggest that starting from a categorical perspective on children, such as diagnosis type, SEN, or SLL status is not enough to ensure participation for all and every child (Palla & Vallberg Roth, 2022). Considering both person and environmental factors is necessary to understand children's participation, in line with the fPRC (Imms et al., 2017).

Despite the importance of interaction effects in explaining children's participation, article III also identified some risk factors for children's observed participation in free play. The *very low* participation group included significantly more SLL children, and children generally came from units with more resource personnel. In the *low* participation group, children came from preschool units with significantly more SLL children. The findings suggest that SLL status, and the proportion of SLL children in the unit are risk factors for low participation, in line with other studies (Finnman et al., 2023; Rydland et al., 2014). This is especially problematic considering that special support is

rarely provided to children identified as SLL (Sjöman, 2018). The Swedish Schools Inspectorate (2017b) has examined preschool teachers daily work with language support to SLL children and showed that 25% of the studied preschools did not provide adequate support in the Swedish language, although a basic level of Swedish is important for a child's interaction with other children in preschool (Björck-Willén, 2018). In general, the report found that fewer contacts were initiated by preschool teachers towards SLL children, and preschool teachers expressed a lack of strategies for supporting multi-language development (Swedish Schools Inspectorate, 2017b). Recent research has highlighted the situation of preschool units where most children are SLLs (Finnman et al., 2023; Finnman et al., in press). Finnman et al. (2023) compared preschool units with high and low proportions of SLLs in terms of what children and teachers were doing across a day. In units with high proportions of SLLs, children spent more time in transitions and less time in free play and had lower engagement in free play. Teachers provided more personal care, and children were less often verbal or listening to other children. Similar findings were also noted by Beteinaki (2020). The findings indicate that children in units with high and low proportions of SLL experience different preschool settings, with less favorable activities in units with high proportions of SLL children, which could help explain the findings of article III.

Understanding what gives rise to individual differences in child participation is important, but a parallel focus is needed on how to improve the participation of all children in preschool here-and-now. If the observed low participation pattern found for some children (article III) is enduring, it indicates that some children do not get the support they need to participate in free play, and that they need more and/or a better quality of support. Based on the Swedish curriculum, Lpfö 18 (SNAE, 2019), the preschool should pay particular attention to children who need more guidance, stimulation, and special support, and the preschool should provide this for them. To this end, preschool teachers first need to be close enough and have knowledge about how to identify children with very low patterns of participation. But they also need to provide adequate support when being close to the children. The Inclusive Classroom Profile (Soukakou, 2012; Lundqvist & Larsson Bodin, 2021), and the self-reflection tool (EASNIE, 2017; Ginner Hau et al., 2023) are both available and validated tools on inclusive quality in preschool which can be

used for internal development in preschools, identifying strengths in inclusive processes, and areas in need of improvement. These tools can also be used to monitor and compare inclusive process quality at a national level. There are also more specific intervention programs available for supporting children who do not participate in play with other children (Siljehag & Westling Allodi, 2023).

## 12.2. Methodological Considerations

Several methodological issues are worth considering in the interpretation of the findings of this dissertation. Given the purpose of this dissertation to explore variations in everyday life in preschool in an international and national Swedish perspective, the cross-sectional and quantitative analyses may have limited a full exploration. A mixed method longitudinal design, complementing the quantitative data with qualitative observations and interviews with preschool teachers could have increased the contextualization of the results. Mixed-method and longitudinal design were, however, not within the scope of the larger PEPI project, and what the ethical committee had approved.

Referring to the methods used, it should first be recognized that everyday life in preschool has been viewed within the lenses of the COP and TOP instruments. Although the behavior count methodological approach in those instruments involved less value judgement on the behaviors observed compared to observational rating scales, the use of behavior counts involved value judgements when deciding which behaviors to observe. Utilizing all the COP and TOP codes in article II, more culturally relevant information for Swedish preschool settings was provided. Future research could make additional adaptations to the COP and TOP to capture behaviors and practices considered culturally specific, for example by providing sub-codes to the focus category code Other, and the teacher task category code Managerial, e.g., facilitation strategies. In this way, cross-cultural comparisons would still be possible by comparing frequencies of the overall code (e.g., focus “Other”), but for national purposes, detailed sub-codes could provide more information.

Second, using non-random samples of preschools in Sweden and across the three countries can be considered a limiting factor of the study. A random sample could have enabled generalization claims within countries. However, a large number and variety of preschools were represented in this dissertation which strengthen the generalizability of the results to settings outside the studied preschools.

Third, a limitation to be considered is that not all children were observed in the units or classrooms in Sweden and Portugal. This was due the lack of informed consent for some children. Observing all children in the unit could have strengthened the validity of the findings as an overall picture of children's activities and behaviors. However, in Sweden ( $M = 82\%$ ), a large percentage of children were still observed which reduces this limitation.

Fourth, it could be asked whether the 20 observational sweeps in COP and TOP recommended across a day is sufficient to represent a child's behavior and activities that day, and across days (McWilliam & Ware, 1994). In the development of the COP and TOP instruments, the creators concluded that a minimum of 12 observational sweeps was sufficient to be representative of a child's behavior and activities that day, but the recommendation was set to 20 in this study. All three studies in this dissertation approached this recommendation. It is also unclear how representative 1-2 days of observations are of individual children's activities and behaviors over time, a consideration for caution when interpreting the participation patterns of article III. Future studies could examine the number of COP sweeps that produces figures comparable to those of continuous observations (Prykanowski et al., 2018), and examine the stability in observed participation patterns over time.

Fifth, although high inter-rater reliability was found for the COP and TOP behavior count categories (article I, II), the rating scale categories were more difficult to agree upon, especially in Sweden. The possible reasons for the lower inter-rater estimates in the teacher rating scale variables of Teacher Tone and Level of Instruction were low variation (evident also in Portugal and the U.S.), coupled with the low number of inter-rater observations in Sweden ( $n = 62$ ), which negatively influence inter-rater reliability estimates. Findings on Teacher Tone and teacher Level of Instruction should therefore be carefully interpreted. Future studies should consider increasing the number of double-

coded observations to at least 25% of the total observations to provide better inter-rater reliability estimates.

With reference to coding child variables, observers appeared to have most difficulty distinguishing between medium and medium high engagement levels and were more often in disagreement for outdoor than indoor observations. When re-examining the dissertation data, an error was noticed that explains the exceptionally low ICC (.003) for Level of Engagement (article I). This error resulted from using “999” to indicate a missing value, but without stating 999 as a discrete missing value. Consequently, the ICC interpreted 999 as a score to be compared with the score of 3 – a large error according to the ICC equation. Re-doing the analysis where 999 was stated as a discrete missing value, the case with missing data was excluded in the analysis, and the ICC became .848, which is considered high. Consequently, the ICC for the 5-level scale of engagement was not as poor as previously thought, although the percentage agreement (60.8%) and kappa coefficient (.50) values are still low. Despite collapsing the scale for article I and II (exact agreement = 72%; Cohen’s kappa = .53; ICC = .843), the findings on engagement in this dissertation should be interpreted with caution.

Sixth, given some tendencies for differences found in preschool practices and child engagement in indoor and outdoor free play found in article II, a decision was made to collapse observations from indoor and outdoor free play in article III, which may have concealed differences related to location. This decision was made to arrive at a mean of 19 sweeps per child to adhere to the stated goal of 20 observational sweeps in COP. Future studies could therefore observe indoor and outdoor free play separately and perform observations across several days to arrive at more observational sweeps per child.

Seventh, a limitation to consider was that the variables used to explore participation patterns in article III relied on relatively complex behaviors (associative/cooperative interactions and pretend play), although participation does not necessarily demand activities to be complex (Imms et al., 2017). Unfortunately, this tendency is widespread, leading Imms and colleagues (2017) to state that: “disentangling participation from development is an important yet unfinished task” (p. 17). Although it could be argued that including developmentally complex activities can contribute to a valuable

normative picture of participation, others argue that a normative picture may not always be appropriate (Elbaum, 2020).

Eighth, no comparison of teacher practices could be made between certified preschool teachers and other personnel, such as child-minders, in Swedish preschools, as the title of preschool teachers was not reported in the observations. Although mixing the results from all preschool personnel caring for the children likely impacted the results, it provided a more valid picture of the preschool practices, in terms of what is offered to the children.

Finally, the effect of raters could not be fully examined in article I. There were different raters in the different countries and despite training and co-observation together in Portuguese preschool settings, no inter-rater reliability checks across raters (examining the correspondence to an anchor observer) in the different countries was possible for financial reasons. This situation further emphasizes the fact that the results should not be compared across countries in a strict sense.

### 12.3. Conclusions

This dissertation aimed to examine variations in preschool practices and environments within an international and national Swedish perspective, and to describe how these variations relate to participation in those environments for children. In line with the bioecological theory (Bronfenbrenner & Morris, 2006), the findings show that preschool practices vary a lot across countries, and that cultural ideas and values, such as the social pedagogy tradition and the early education tradition, seem to be largely reflected in the country's preschool practices. The activity setting appears as an important semi-structural characteristic of preschool everyday life that sets the frame for what children are attending to and their level of engagement when being there, the primary dimensions of child participation. However, not all variability in preschool practices can be attributed to differences across countries. The large within-country variation for several practices indicates that these practices are not as influenced by macrolevel factors, such as country/cultural ideas, but by something else, such as natural within-unit variation, preschool structural quality, exosystem differences, such as municipality management of the preschools, and socioeconomic status in the preschool area. Conclusions are

further presented in relation to preschool quality, inclusive education, and the Swedish preschool for all children.

### *12.3.1. Preschool Quality*

Given some shared interests in ECEC policies internationally regarding children's academic learning, and the practices of teacher's listening to children, having dialogues with children, and posing open-ended questions without a set answer, the preschool practices in Sweden reflect the social pedagogy tradition, whereas practices in Portugal and the U.S. largely reflect the early education tradition. Differences in the way practices are valued and used across different countries have implications for the way quality is measured and understood across different settings.

A culture's ideas and values seem to be reflected in instruments measuring preschool practices. A measure on preschool practices or preschool quality reflecting the early education tradition will not provide a sufficient picture of all relevant interests in preschools reflecting the social pedagogy tradition. Preschool practices that may support culturally valued, or context-specific child outcomes face the risk of being overlooked when adopting a measure developed within an early education tradition. Careful considerations to context are needed when selecting and adapting instruments to measure preschool practices and preschool quality.

Initiatives for increased preschool quality to support children's learning, health, and wellbeing should consider both universal quality indicators, and context-specific quality indicators.

### *12.3.2. Inclusion*

What children participate in, and their engagement when being there both seem influenced and defined by the activity setting. Consideration of the activity setting, and the affordances provided to children is required when studying participation and engagement in preschool.

The findings strengthen the view that participation is a highly contextualized and value-based concept with implications for the measurement of children's participation. The basis for measuring participation as an outcome of inclusion needs to be explicit and careful consideration to perspective is required.

In the three countries, children appeared to be less engaged in their dominant activity setting. Rather, they were more engaged in the activity settings that happened less often. Neither teacher-led small groups nor small groups in combination with free play were frequent but yielded higher levels of engagement than the dominant activity setting (free play or whole-group, respectively). This indicates that novelty experiences, such as changes in activity settings, are needed for children to keep their engagement levels high.

Using a person-oriented methodological approach was useful in evaluating participation as an outcome of inclusion, especially in free play where children have freedom to choose different activities. Starting from a categorical perspective on children, such as diagnosis, SEN, or SLL status, is not enough to ensure participation for all and every child. Children with low levels of participation may then become unseen by preschool teachers. Considering both person and environmental factors is necessary to understand children's participation, in line with the fPRC (Imms et al., 2017).

### *12.3.3. The Swedish Preschool for all Children*

The high levels of child-child- and associative interactions in Swedish preschools suggest that the proximal processes for children's participation concern child-child interactions, as much as teacher-child interactions.

The few predictors found for children's participation in free play and the spread of children with SEN across all participation levels strengthen the view that participation is determined by the interaction of several child- and environmental factors, and not by single factors such as a disability.

The outdoor free play activity setting seems to create opportunities for high engagement for some children, but also provide less opportunities for engagement for other children, leading to more unoccupied behaviors. The importance of teacher proximity for children's participation in free play seem

to vary between children, and this variation may be reinforced in outdoor free play.

Children in preschool units with more SLLs as well as SLL children themselves are at increased risk for lower participation in free play than their non-SLL peers.

Swedish preschoolers with the lowest participation levels in free play appeared unseen by preschool teachers and were not often children with disabilities. These children do not seem to get the support they need to participate in free play. This situation is not in line with inclusive policies and the “preschool for all children” intentions in the national preschool curriculum.

#### *12.3.4. Implications for Practice*

Creating novelty experiences for the children by varying the activity settings may be important to keep children’s engagement levels high. Increasing the use of teacher-led small group combinations which were infrequently seen across the three countries seems worthwhile to increase children’s engagement in preschools across the three countries. Outdoor free play also appears to have more potential to engage children in Swedish preschools. Some children need teachers nearby to facilitate participation in outdoor free play.

There is room for improvement in all three countries on the teacher practices of listening to children, having dialogues with children, and posing open questions without a set answer, practices considered as universal quality indicators.

Children in the Swedish preschools are provided with academic learning opportunities, such as math and literacy, despite a dominance of free play activities. This indicates that academic learning opportunities are provided and created in free play, and that increasing teacher-led whole groups are not needed for children to focus on academic contents.

Most children indicated average-to-very-high participation, but two groups of children appeared to have problems participating in Swedish preschool free play. Both groups tended to include SLL children or attended preschool units with more SLL children. The low-participation group of children was characterized by physical closeness to teachers and peers. For these children, teacher closeness does not seem enough. They may need another type of support. The very-low-participation group of children appeared unnoticed by preschool teachers. These children need to be seen and receive support by preschool teachers. To improve the participation of all children in preschool here-and-now, preschool teachers first need to be close enough and have knowledge about how to identify children with very low patterns of participation. But they also need to provide adequate support when being close to the children.

#### *12.3.5. Future Research*

Future research should identify what constitutes important child outcomes in Swedish preschools, such as child participation, and perhaps more generally in preschools reflecting the social pedagogy tradition, and to explore potential context-specific process quality indicators that support those outcomes.

To understand what preschool practices that drive child engagement in Swedish preschool settings characterized by free play, future studies could start by observing the relationship between children's level of engagement and preschool practices known to support child engagement in preschools following the early education tradition. For more context-specific practices, the level of child associative/cooperative interactions, and the teacher task of managing the child group are practices of potential importance. Additional exploration of teacher managerial tasks is recommended, e.g., regarding grouping practices, responsiveness to children, and facilitation strategies for participation, but also concerning the reciprocity of peer interactions.

Considering the general importance of engagement, studying optimal levels and costs of child engagement are important in Swedish preschools that aim to provide children with education, care, and rest for many hours of the day. This integrated service may demand fluctuations in children's engagement

across the day, but there could also be unfulfilled potential for children's engagement, for example in outdoor free play.

To better understand the sources of within-country variation in preschool practices found in this dissertation, future studies should observe preschool units across several days and relate the observations to the proportion of SLL children in the preschool, number of certified preschool teachers, the quality of preschool leadership and professional collaborations, as well as exosystem characteristics, such as municipality management, and socio-economic status in the preschool area. Preschool teachers can also be interviewed about the within-country variation in practices to identify unforeseen contributing factors. The relationship between children's preferences and participation also needs to be better understood and it would be valuable to capture children's perspectives of their preschool participation (Hedges, 2021). In this way, the broader involvement dimension of participation could be targeted (Imms et al., 2017).

# 13. Svensk Sammanfattning

## [Summary in Swedish]

*Bakgrund:* Inkludering står på den politiska agendan för tidig utbildning och barnomsorg (ECEC) både i ett internationellt och nationellt svenskt perspektiv. Målet för inkludering är att alla barn är delaktiga, det vill säga att de är närvarande i förskolan och engagerade i aktiviteterna. I svensk förskolepolitik handlar det om att skapa en universell förskola där alla barn är välkomna, och själva begreppet inkludering används sällan i den svenska kontexten.

Delaktighet betraktas även som en indikator på proximala processer och ses som en motor för barns utveckling i den bioekologiska teorin. Delaktighet är till stor del beroende av sammanhanget vilket gör det komplext att studera. Lite är känt om individuell variation i barns delaktighet i förskolan. De flesta studier jämför delaktighet hos barn med och utan funktionsnedsättning även om variationen inom dessa grupper ofta är stor. Få studier har undersökt hur praktiken och aktiviteterna i förskolans vardagsmiljö varierar och hur denna variation avspeglar sig i barns delaktighet, både i ett internationellt och svenskt perspektiv.

*Syfte:* Denna avhandling undersöker variationer i förskolepraktiker och miljöer dels i ett internationellt dels i ett nationellt svenskt perspektiv. Syftet är att belysa och beskriva hur dessa variationer är relaterade till barns delaktighet i förskolan. Resultaten diskuteras i relation till förskolans kvalitet, inkluderande undervisning, och den universella svenska förskolan för alla barn.

*Metod:* Systematiska observationer baserat på olika beteenden ("behavior counts") användes för att beskriva variationer mellan och inom länder i barns och förskollärares vardagliga aktiviteter och samspel i förskolor i Sverige ( $n = 78$  avdelningar), Portugal ( $n = 42$  klassrum) och USA ( $n = 168$  klassrum), och med ett fördjupat fokus på svenska förskolor. Dessutom observerades barns ( $n = 453$ ) delaktighet i den svenska förskolans fria lek. Observationerna i förskolemiljön omfattar bland annat undervisningens organisering

(gruppformat), förskollärares arbetsuppgifter, undervisningens komplexitet, barns- och lärares innehållsmässiga fokus, samspel, och barnets nivå av engagemang.

*Resultat:* Den största variationen mellan länderna gällde det dominerande gruppformatet. Fri lek var dominerande i svenska förskolor, medan lärarledda helgrupper var det huvudsakliga gruppformatet i Portugal och i USA. Svenska förskolebarn spenderade mycket tid utomhus och ägnade sig till stor del åt samspel och lek tillsammans med andra barn i små grupper. I Portugal och USA lekte barn i mindre utsträckning tillsammans och det var vanligare att lärare ägnade sig åt undervisning. I Portugal ägnade sig barnen mer åt läs- och skrivkunighet och matematik än i Sverige, och i USA förekom akademiskt lärande dubbelt så ofta som i Sverige. I Sverige var konstruktionslek, skapande verksamhet, musik, och enklare lek vanligast, följt av låtsaslek.

Förskollärare i de svenska förskolorna uppvisade en stor variation av arbetsuppgifter och organisering/hantering av barngruppen förekom i stor utsträckning. Det var sällan förskollärare ställde öppna frågor till barnen samt lyssnade på barnen i de tre länderna. Vissa beteenden varierade i hög grad inom de tre länderna. Till denna variation hörde hur ofta förskollärare uppmuntrade positiva beteenden och gav tillrättavisningar, hur ofta förskollärare lyssnade till barnen, hur ofta barnen samspelade i fri lek, och hur ofta barnen ägnade sig åt matematik. Variationen i hur mycket undervisning som förskollärare ägnade sig åt var större i Sverige än i Portugal och USA.

Ett förvånande resultat var att i samtliga länder tenderade barns engagemang att vara lägre i de aktiviteter som förekom oftast i förskolan, vilket innebar att i Sverige var engagemanget högst i lärarledda aktiviteter medan det var högst i fri lek i Portugal och USA. Allra högst i samtliga länder var barns engagemang i lärarledda smågrupper, men dessa förekom sällan. I svenska förskolor noterades högre engagemang i fri lek inomhus än utomhus.

I fri lek uppvisade de flesta barn medel till hög delaktighet, men två grupper av barn uppvisade låg till mycket låg delaktighet. Barn med annat modersmål än svenska och barn på avdelningar med fler barn med annat modersmål tenderade att ha lägre delaktighet, men detta gällde inte för barn i behov av särskilt stöd. Barn med lägst delaktighet verkade inte uppmärksammas av förskollärare.

*Slutsats:* Resultaten tyder på att praktiker i förskolan varierar mellan och inom länder och är relaterat till politik, kultur och värderingar på flera systemnivåer. Förskolepraktiker i Sverige återspeglar den socialpedagogiska traditionen, medan förskolepraktiker i Portugal och USA återspeglar den tidiga utbildningsmodellen. Vissa förskolepraktiker framstår som mer lokalt bestämda och varierar inom länder. Kulturella idéer och värderingar tycks också återspeglas i de instrument som används för att undersöka förskolans praktiker och kräver försiktighet vid val av instrument. Det finns en risk att synen på kvalitet i förskolan följer den modell som återspeglas i de mätinstrument som används. I svenska förskolor är det till exempel möjligt att samspelet mellan barn driver barns utvecklingen lika mycket som samspelet mellan barn och lärare, men få instrument berör samspel mellan barnen. Barns delaktighet är i hög grad beroende av, och definierat utifrån miljön. Studier om barns delaktighet i förskolan som ett mål för inkludering bör ta hänsyn till rådande gruppformat och hela barngruppen. Studier avseende inkludering tenderar att utgå från barn med funktionsnedsättningar. Då är risken att vissa barn med låg delaktighet förbises; kanske för att de inte stör barngruppen. Vissa barn verkar inte få det stöd dom har rätt till för att vara delaktiga i förskolans fria lek trots att inkludering är grunden för den svenska förskolan för alla barn.

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# Everyday Life in Preschool

## – Swedish and International Approaches

How does children spend their time in preschool? Does everyday life in preschool look the same across and within countries? This dissertation aims to examine variations in preschool practices and environments from an international and national Swedish perspective, and to describe how these variations relate to children's participation in those environments. Findings from three empirical studies form the basis of this dissertation.

Systematic observations focusing on the behaviors, activities, and interactions of children and teachers are used to describe preschool practices in Sweden, Portugal, and the U.S. and to provide comprehensive descriptions of practices in Swedish preschools. Systematic observations are also used to explore variations in participation patterns of children in Swedish preschool free play.

Findings showed that the largest variation across the countries concern the dominant activity setting. Free play was the main activity setting for Swedish preschools, while teacher-led whole group was frequent in Portugal and the U.S. Teachers in the Swedish preschools displayed a large variety of teacher tasks where managing, i.e., organizing the child group, was most frequent. Swedish preschoolers spent much time outdoors and had a high proportion of child-child interactions. A focus on construction, art, music, and less sophisticated play in small groups of children was most common, followed by pretend play. Two groups of children displayed low-to-very-low observed participation in Swedish preschool free play. Second language learners, but not children with special education needs characterized these groups. Children with the lowest observed participation levels appeared unseen by preschool teachers.

The contribution of this dissertation is a new methodological approach to investigate the everyday life of children and teachers in preschool, with relevance for preschool quality, inclusion, participation, and the Swedish preschool for all children.



FRIDA ÅSTRÖM holds a master's degree in psychology. She is a member of the multidisciplinary research environment CHILD at Jönköping University. Frida has a broad research interest in young children's development, learning, and well-being, with a special interest in preschool inclusion, equity, and children who need more support than others to function in everyday life. Frida is further intrigued by research approaches that combines various perspectives on early childhood, such as, interdisciplinarity, cross-cultural perspectives, mixed-methods, and individual- versus group-perspectives.

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