Literacy-Related Play Activities and Preschool Staffs´Strategies to Support Children´s Concept Development

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Abstract

This study investigates language-promoting strategies and support of concept development displayed by preschool staffs´ when interacting with preschool children in literacy-related play activities. The data analysed consisted of 39 minutes of video, selected systematically from a total of 11 hours of video material from six Swedish preschool units. The selected sequences were play situations where preschool staff and child/children were present and teachers used strategies for creating a high instructional climate. The results show that spontaneous play, dramatic play, adult-initiated play and child-initiated play, as well as access to objects or toys offer numerous opportunities in literacy-related play activities to support children's concept development. Results showed that during play activities, such events stimulated children's language modelling and presented opportunities to increase the preschool children's concept development. However, more research is needed in this area, especially concerning how preschool staffs´ participation, timing and sensitivity help support children in literacy-related play activities.

Keywords: *emergent literacy; language; concept development; preschool staff*

1. Introduction

The aim of the present study is to investigate preschool staffs´ social language promoting strategies and support of concept development when interacting with preschool children in literacy-related play activities. Literacy-related play activities can be defined as events in which symbols, artefacts and communicative situations have an integrated role. The process of literacy learning begins at birth (Barton, 2007; Clay, 1991; Kamhi & Catts, 2005; Saracho, 2002), and early experiences of emergent literacy events and practices play an essential role in children's learning of reading and writing (Barton, 2007; Kamhi & Catts, 2005). Children encounter emergent literacy events and practices both in the home environment and in preschool. In Sweden most children start   preschool when they are one year old, and the Swedish preschools are characterized by a pedagogical approach in which care and education constitute a whole, ,known as *educare* (OECD, 2006). The preschool has the responsibility to offer children the opportunity to learn and develop according to the goals of the national curriculum for the preschool (Ministry of Education and Science, Lpfö 98/201; Pramling Samuelsson, Sheridan & Williams, 2006). However, these are goals to strive for and primarily directed to the preschool staff. The goals are not used for assessment of children´s developmental or learning skills. The Swedish national preschool curriculum (Ministry of Education and Science, Lpfö 98/2010) stipulates that preschool should promote play, creativity and enjoyment of learning based on the child's interests. Further, the preschool staff should stimulate the children's interest in written language and symbols, and promote their communicative skills and use of spoken language. The Swedish preschool is characterized by free play as well as indoor and outdoor activities. During a day, there are few routine situations except circle time and lunch time. Furthermore, the social language environment in Swedish preschools offer a variety of activities that engage children in literacy-related activities throughout the day, such as storybook reading, dramatic and spontaneous play, writing as well as drawing activities, but how preschool staff promote and support preschool children in these activities is not well understood.

To investigate earlier research about the emergent literacy environment in preschools, a systematic literature review was conducted (years 2000-2009) of existing empirical articles relating specifically to the social language environment in preschool. Four computer databases were used: Ebsco, PsycINFO, Eric and Web of Science. Of the

1260 abstract identified, 71 articles were selected as useful for further review.

The result of the literature review shows that preschool staffs approaches to; in-service training (see for example Girolametto & Weitzman, 2002), interactions (Harle & Rudeau 2006), reading and writing activities (Barton, 2007; Clay, 1991) regard to children's experiences (Saracho, 2001; 2004) as well as learning climate (Pianta & Stuhlman, 2004; Pianta, 2006) in preschool has an essential role in the emergent literacy environment. The most relevant articles and specifically studies focusing on emergent literacy-related play are included in this article.

Previous research by Smidt et al. (2012) indicates that printed materials are of minor importance in literacy activities for preschool children, whereas literacy activities that involve oral language are of great importance in supporting their emergent literacy skills.

Cunningham, Zibulsky and Callahan (2009) have investigated preschool teachers' knowledge in the domain of promoting early literacy. Results shows that preschool teachers appear to overestimate their abilities and lack the disciplinary knowledge needed to support early literacy. Further, the results indicate that preschool teachers' knowledge and methods play an essential role in supporting children's language development and promoting emergent literacy skills in the preschool environment. In a study by Norling (2013) preschool staff mostly described activities in which they encourage children to engage in play and communication, but to a lesser degree challenged children with literacy promoting activities. Results of a study by Norling, Sandberg and Almqvist (2015) show high scores overall for language environment in Swedish preschools, but also suggest a need for critical examination of the preschool emergent literacy environment, due to a lack of activities that stimulate preschool children's concept development, stimulate their own reflection and thinking, and encourage them to engage in literacy play and storytelling.

A few studies (see for example Miller & Paige-Smith, 2004; Moon & Reifel, 2008; Saracho, 2002; 2004) examine preschool staffs' approaches to supporting literacy-related play; moreover there are some studies that investigate the extent of emergent literacy activities in preschool (Smidt, Lehrl, Anders, Pohlmann-Rother & Kluczniok, 2012; Turnbull et al., 2009) as well as some about language stimulation and play in preschool (Turnbull et al., 2009; Rivera, Girolametto, Greenberg & Weizman, 2005), but studies that focus on preschool staffs' support of concept development in literacy-related play activities are lacking. This leads us to the following research questions, which will be addressed in this paper:

a) How does preschool staff support children's concept development in literacy-related play activities, and

b) what are the characteristic features of these literacy-related events and concepts?

Preschool staffs´ support in literacy-related activities facilitates children's development of reading and writing skills before they enter school (Clay, 1991; Turnbull, Anthony, Justice & Bowles, 2009; Whitehurst & Lonigan, 1998). Previous research (Howes et al., 2008; McMullen, 1999; Saracho, 2004) shows that preschool teachers' roles, beliefs and supporting strategies are important factors in contributing to high quality learning environment. High quality learning environment has been described in terms of teachers' emotional support (Curby, Brock & Hamre, 2013; Pianta & Hamre, 2009), organization of the preschool environment (Pianta & Hamre, 2009; Turnbull et al., 2009) and preschool staffs' instructional support (Howes et al. 2008; Pianta & Hamre, 2009; Turnbull et al., 2009).

1.1 Literacy-Related Play

Play activities such as spontaneous play, dramatic play and adult initiated play seem to be essential to promoting children's motivation and engagement in learning and development. Research shows that preschool children have unique opportunities to develop their language and emergent literacy skills in literacy-related play activities in preschool (Nitecki & Chung, 2013; Saracho, 2004; Turnbull et al., 2009). Nitecki and Chung (2013) argue that *"Play, the activity that fosters creativity and problem solving skills, should be central to any kind of teaching in the preschool classroom"* (p. 53). However, their study also shows that there is a tension between play-based methods and direct instruction, because teachers feel pressured to meet standardized requirements. The teachers believe that play activities motivate children to learn, but in their practice they use more formal methods of instruction at the expense of play. Moon and Reifel (2008) have examined a teacher's understanding and practice of using play to promote literacy learning. Results show that the teacher's beliefs and actual practice are not consistent, and the authors emphasize that *"play emerges as a problematic, emergent concept for understanding early childhood practice"* (p.62). However, the teacher believed that play serves an essential function in children's emergent literacy learning and she used play activities as tools for literacy learning. Play activities are not, however, the sole solution for fostering learning, motivation and engagement; the presence of an adult who is responsive and takes part in play activities is also essential to promoting children's engagement with learning activities (Norling et al., 2015; Stuhlman

& Pianta, 2002).

1.2 Support of Concept Development

In a study of classroom quality, language, and literacy outcomes (Howes et al., 2008), the only significant predictor of gains in children's receptive and expressive language was teachers who are engaged in interactions and encourage communication and reasoning. However, children's letter knowledge and *teachers' emotional* tone showed no significant correlation. Curby et al. (2013) argue, however, that *consistency* of emotional support is important for children's academic and social outcomes, rather than emotional support generally.

Further, Howes et al.'s (2008) results show that children in high-instructional-climate classrooms had teachers who engaged them in interactions that promoted communication and reasoning. The teachers were also sensitive and responsive in their interactions with children, promoted higher-order thinking, and offered more verbal feedback. The results also indicated that children who had opportunities to participate in high-instructional-climate classrooms *"became more proficient in language and literacy skills; their receptive language and their understanding of pre-reading concepts increased"* (p.45).

A study conducted by Norling and her colleagues (2015) finds that preschool staff tended to be sensitive and nurturing, and emotionally involved in the everyday activities at preschool, but to a lesser degree employed concept development activities such as stimulating children's storytelling and narratives. There were also significant differences between different preschool units in terms of how they organized the preschool environment and challenged children's learning.

Based on previous results, it is essential to investigate the use of language promoting strategies and support of concept development in literacy-related play activities. As a result, the aim of the present study is to investigate preschool staff's language promoting strategies and support of concept development when interacting with preschool children in literacy-related play activities.

1.3 Theoretical Foundations

Roskos and Christie (2011) emphasize the relationship between play and early literacy. Referring to Fischer's dynamic skill theory, which provides analytic tools for examining data on play and literacy, they argue that play and literacy are *"stuck in a theoretical and methodological rut"* (p.73). They argue that a more "robust" theory is needed to analyse data to explain how language use in play is related to development, since language is a tool for the child's thinking, action and development. Therefore, the theoretical approach in this study is based on Barton's (2007) ecological perspective of emergent literacy and Bronfenbrenner's (1999) bioecological theory of human development in which emergent literacy learning occurs everywhere, not within a particular time throughout the day. Learning is a process that changes over time and occurs in ordinary contexts in various settings through interaction with the immediate environment. The individual learning and developmental process is related to a person's internal thinking process and external learning environment (Vygotsky, 1962) in which the language mediates meaning-making and learning in social practices and events known as *proximal processes* (Barton, 2007; Bronfenbrenner, 1999) and *the zone of proximal development* Vygotsky, 1978). In this study, Vygotsky´s sociocultural theory is useful as a theoretical framework to explore how preschool children in interaction with peers and preschool staff confirm and practice emergent literacy concepts in literacy related play events. Vygotsky´s theory enables to put the lens on children's and preschool staff´s verbal language, gestures and symbols as a way of negotiating and appropriating meaning-making. The bioeclogogial approach is in this study is used to interpret and analyse video observations of how preschool staff in literacy- related play activities relate events to the child's individual experiences in process of time and context. This study focus particularly on the preschool staff´s support in social interaction and communication in the immediate environment in preschool settings thus, preschool staff and children's microtime.

2. Method

2.1 Study Design

The study design has a qualitative approach in which the data consist of 39 two minute video sequences focusing on preschool staffs social language promoting strategies. The video sequences were analyzing using a manifest content analysis (Downe-Wamboldt, 1992; Kondacki, Wellman & Amundson, 2002), with both deductive and inductive approaches (Elo & Kyngäs, 2008). The selection of video sequences were performed deductively based on theory and previous research and analyzed inductively in order to describe the events and concepts meaning unit represented in each video sequence.

2.2 Participants

All participating preschool staff (fourteen preschool teachers and three primary school teachers) had an educational level of three and a half years university studies. All are referred to as preschool staff in this paper.

The preschool and primary teacher program in Sweden combines theoretical courses in both subject studies and pedagogic as well as early childhood education. These three areas in the programme are interrelated as a coherent whole. The program also includes 20 weeks of practice training in preschools nearby the university. The preschool programme comprise 210 credits, and ends with a thesis exam.

The preschool units had 15–24 children, 1–5 years of age. The preschool units were distributed across three different cities in Sweden and they were already participating in a larger research project of which this study is a part (for more information about the selection process generally, see Norling, 2013; Norling et al., 2015).

2.3 Procedure

Participants were selected based on results in previous studies within the project of which this study is a part. Preschools whose staff reported using language-stimulation strategies in Norling's (2014) study were selected, as were those preschool units that scored highly on the rating of quality learning environment (Norling et al., 2015). The heads of preschools that fulfilled the above mentioned criteria, were asked by phone to participate and were informed about the purpose of the study and the method of data collection. Unfortunately, some preschool units did not want to participate since they felt uncomfortable with video recording and it was difficult to obtain parental permission. Teachers at the participating preschools were personally informed about the study and relevant ethical considerations. Further, the parents received written information about the study and the ethical considerations and gave written permission for their children to be part of the data collection. The preschool children were asked the same day as the data collection began, and the study was carried out in accordance with the ethical principles of social sciences research (Ministry of Education and Research, 2003:469); accordingly, the researchers were sensitive to children's reactions to being video recorded. In addition, all names have been changed in the transcribed video sequences.

2.4 Data Collection

The video recordings were made with a hand-held video camera at different times and during varying play activities over the course of a day in preschool, from fall 2010 to spring 2011. The child groups studied consisted of 15–24 children aged one to five years at each preschool unit. However, during the play activities the children were in smaller groups consisting of two to eight children. The video recording took place on two occasions, selected as suitable of the preschool staff and representing a typical day in the preschool. The recording resulted in approximately 11 hours of video material, of which seven hours were selected for further analysis in accordance with the aims of the study. Responsibility for producing the video material was divided between the authors, and two-minute "snapshots" were selected for further analysis based on the following criteria: they should include a play situation where adult(s) and child/children were present and where teachers used strategies for creating a high level of instructional climate, for example by asking open-ended questions, or using supportive or advanced language. The decision to use two-minute excerpts was made in order to handle a large amount of data, preserve transparency, and enable deep analyses of the transcriptions. Further, the selection of the two-minute video sequences was performed based on the selection criteria and analysis scheme (see Appendix 1) constructed by the researchers. The analysis scheme is based on theoretical foundations including events and practices (Barton, 2007), bioecological theory (Bronfenbrenner, 1999), thoughts, language, and proximal processes (Vygotsky, 1978), and components of emergent literacy (Whitehurst & Lonigan, 1998), in addition to previous research regarding emergent literacy promotion and developmental dimensions (Curby et al., 2013; Girolametto, Weizman & Greenberg, 2003; Kamhi & Catts, 2005; Pianta & Hamre, 2009; Saracho, 2004; Turnbull et al., 2009).

2.5 Data Analysis

The selection procedure resulted in 39 two-minute video sequences, representing 10.5% of the total amount of video material viewed by the authors. The sequences were analysed with a focus on preschool staffs' use of social language supporting strategies to promote preschool children's concept development and the children's responses in literacy-related play activities. Manifest content analysis (Downe- Wamboldt, 1992; Kondacki, Wellman & Amundson, 2002) with both, deductive and inductive approach (Elo & Kyngäs, 2008) was performed on the transcripts of the two-minute video sequences to analyse and describe the meaning units *events* and *concepts* that focus on the play event and on concepts that come (see Appendix 1). Selection criteria and analysis scheme) in interactions and conversations between preschool children and teachers, in order to explore language-supporting

strategies which may promote children's concept development. The study has a qualitative approach and the deductive analysis is based on the defined high quality learning environment described as Instructional Climate (Howes et al., 2008). Each transcript from the selected video sequences was systematically analysed in accordance with the preschool staff supporting strategies in children's literacy- related play events and in the appropriation of concepts. Through process of coding, and categorizing themes that characterize the events and concepts used in the play activities was identified. The initial analyses were conducted by the first author, and discussed with the second author. No quantitative measure of inter-rated reliability was obtained; however, several of the video sequences were viewed by both authors and discussed in terms of feasibility of the coding scheme. The thematic categories of events obtained from the analyses were as follows: colour/pattern, word/letter, picture/photo, construction/function, narrative, and searching/finding events. These categories of events will be described in more detail in the results section.

3. Results

The results define and describe several events and concepts that characterized the dialogues conducted by the staff during literacy-related play activities to support the children's concept development. In the literacy-related play activities, the events surrounding the dialogues concerned the six themes of events mentioned above: colours/patterns, words/letters, pictures/photos, constructions/functions, narratives, and searching/finding (see Table 1).

The *colours/patterns events* and *words/letters events* were conducted indoors and were both child- and adult initiated. The play environment offered various contexts such as a large room with an interactive whiteboard and lots of objects or toys, a playroom providing access to a specific toys made available by the preschool teachers, or tables providing access to coloured pens, paper, photos and pictures as well as computers, reachable for the children in the activities. The size of the child group varies from three to eight children and one to three preschool staff.

Pictures and *photos events* were mostly conducted indoors in a variety of literacy-stimulating play environments such as the interactive whiteboard and a playroom where the children have access to pictures, photos, portfolios, pens, markers, pencils, crayons and paper. The dialogues mostly concerned artefacts and specific people in the pictures/photos, for example, the moon, a ghost, boats, cars, and houses; concepts like lots of, big, oldest, fishing, eating; and people like mommy, daddy, sister or friends. Furthermore, the *constructions* and *functions events* comprises play activities related to building things or understanding how objects function. The play activities were conducted indoors and were both child- and adult initiated and offered access to objects and toys such mobile phones, puzzles, LEGO, blocks and cardboard. In the adult-initiated activities they began by asking questions like: What should we play today? What should we build? while offering children a variety of toys to encourage construction play. The teachers provide encouragement and responses, and link concepts to children's own lives.

In play activities in which *narratives events* occur, the environment mostly take part in a room with a carpet on the floor so that the children could sit or lie down comfortably. Some activities were carried out during circle time, or as part of adult-initiated play where children were given objects (known symbols, photos or artefacts) that encourage storytelling and narrative activities. In contrast to narrative events, *searching and finding events* mostly were conducted outdoors. The outdoor context varied, the staff and children could be outside, sitting on the grass in a meadow; or during winter when there is a lot of snow.

However, the analyses indicate that the events in this study seem to influence practice of concepts among children and promote children to explore and examine concepts in literacy- related play activities.

In addition, the following five conceptual themes in the dialogues were visible: concepts that express actions; concepts about concrete things; descriptive concepts; spatial/location concepts; and specific name concepts. Examples of the conceptual themes in the six type of events are presented in Table 1.

To some extent the five conceptual themes were visible in all thirty-nine (2 min x 39 videos = 78 min video) dialogues, though there was some variation with regard to the events surrounding the dialogues. Below, characteristic features of the six literacy-related play events are described, along with preschool teachers' strategies for supporting concept development, which are illustrated by examples transcribed from the video recordings.

Table 1. Literacy-Related Play Activities, Events and Concepts

Literacy-related events	N= 39					
	Colour Pattern n=7	Word Letter n= 6	Picture Photo n=7	Construction Function n=5	Narrative n= 5	Search Find n= 9
Context and artefacts	Indoor Large playroom Interactive board Table	Indoor Interactive board	Indoor Interactive board Table Pencils, crayons	Indoor Blocks, Mobile phone, LEGO, cardboard Home environment play room	Indoor Circle time Table Play room	Outdoor Meadow during spring, grove during winter Indoor Interactive board
Range number of children	1-8	2-8	3-8	3-8	2-8	2-8

Literacy related concepts						
Actions	Talking about what exchange means while drawing	Writing "once more" Play games	Talking about the concept of climbing Fishing Eating Hearing Sleeping	Building a police station Making calls Building houses	Describing happening on a picture Describing a summer memory	To lose something Climbing Flying
Concrete things	Identifying colors on toys and artefacts	Repeating words from a film	Naming pictures such as ghost	Talking about things that are alike	Rabbit Bridge Troll	Finding pairs
Descriptive concepts	Weight Amount Little	Weight Amount	Many Warm	Discussion about the number of phones they need and how they work	Suggesting themes to a play	Amount
Spatial/location concepts			The place on a picture	Children using concepts such as up, down, fitting while doing puzzles	Talking about a location they visited	Looking for missing artefacts Talking about spatial concepts
Specific name concepts.	Naming stamps Naming birds One kilo Naming colors	Identifying numbers Letters and numbers Spelling Names The concept of once again	Parts of a bird, wing, leg Naming friends on a picture The concept of Santa	Naming symbols Naming Constructions such as barrier	Children retelling a story using concept such as big and tiny	Concept of a pair Naming birds and flowers

3.1 Colours/Patterns Events

Six children age 16 months to two and a half years and two preschool staff are sitting around a table and there is a photo of birds' eggs. One of the preschool staff shows the photo to the children and asks them what colours the eggs have on the photo. The children respond with some suggestions. Each child has received an egg and there are felt-tip pens on the table that they can use to colour their eggs. The teachers encourage the children to trade colours with each other.

Child 1: I want to trade [she puts her egg in a cup where the pens are supposed to be and she laughs and looks at the preschool staff.]

Staff 1: Do you want to trade your egg? [She laughs and says "that was a good one" the child is smiling and takes her egg back.]

Staff 2: Yes, you could trade eggs with each other.
[Both preschool staff support the children and ask them how it's going, saying things like, you're working hard you have to press harder, what colour do you want? and so on, and one child says…]

Child 2: Two eggs [he holds the eggs in his hands.]

Staff 1: Two eggs [and she continues to ask….]
I wonder how many eggs it would be together [no response from the children and they continue to colour their eggs.]

The preschool staffs introduce the activity with a question regarding what colours the eggs have on the photo and the children give some responses. However, the dialogue addresses an interest in two concepts, trading and the mathematical concept of two. In the activity the preschool teachers have encouraged the children to trade colours with each other, and it seems that the girl in the sequence above is interested in using the concept of trading. In the activity and the dialogue, she uses the word trade in two meaning, first to act by putting her egg in the box where the colours are supposed to be traded and second, because of the preschool staff response and feedback she could receive meaning and experience of the concept exchange. Further, a boy tries to confirm his understanding of the concept of two by holding two eggs in his hand. It is obvious that he has previous experience of the concept two but wants to confirm it in this way. The preschool teacher responds and encourages the boy and the other children by asking a question: How many eggs would it be together? There is no response to the question, either from the boy or the other children. It seems that the boy is satisfied with the confirmation of the concept of two.

The preschool staff initiates the dialogue with a topic as well as a concept by asking both kinds of questions, specific and open-ended. It seems that the children do not answer the "what" questions; they rather continue the dialogue according to their own interests and test new concepts based on their own experiences or meaning-making. The preschool staff give feedback loops during the activities and it seems that they have a child perspective to follow children's interest in the dialogue by encourage children's persistence.

3.2 Words/Letters Events

Eight children age 12 months to two years and preschool staff are sitting on the floor in a room with an interactive whiteboard and lots of pillows to sit on. They have been playing a game about an octopus called Orvar who has a box of words.

Children: we can watch it once more [the children are excited and one child says]

Child 1: once again

Staff: Yes, we can see it once more [the child continues]

Child 1: once more

Staff: [the preschool staff responds] once more [another child repeats]

Child 2: once more [the game starts]

Orvar: Hello, hello my name is Orvar [the children respond]

Children: Heeeeelooo

Orvar: And this is the "word jar"

Child 3: "Word jar"

Staff: [respond] word jar, yes! [pieces of fruit pop up and the octopus says]

Orvar: Orange and the banana [two children point at the interactive whiteboard and say]

Children: Banana [the preschool staff responds]

Staff: Yes….

Children: jamas, jamas, jamas [they are excited and the preschool staff does not really understand what they are saying. The two children continue saying]

Children: jamas, jamas, jamas…..[the staff respond]

Staff: Banana in pyjamas… Yes, that what you meant! [children nods]

In this play activity the staff took the initiative to play at the interactive whiteboard and suggested a game with a focus on words; still, they were responsive to children's gestures and communication, requests and experiences. In the sequence a child expresses the concept *once again* and the teacher responds with the more correct expression (in Swedish), and the child repeats "once more". This provides an opportunity for the child to gain experience of the concept *once more,* and the teacher accordingly starts the game again in response to the child's request. Further, a banana pops up from the jar on the interactive whiteboard and two of the children express their experience by saying "jamas, jamas". They are excited, and after a while the teacher understands what they mean and provides feedback on the children's experience of the story, Bananas in pyjamas. This gives the two children an opportunity to think and connect back to previous experiences of the concept *banana.*

3.3 Pictures/Photos Events

Eight children age 12 months to two and a half years are playing in the play room; a boy is lying on the floor looking at photos in his portfolio and starts to talk about the people in the photos. He recognizes the people in the photos and tries to create meaning and understanding by looking and pointing at people he sees in his surroundings. A teacher sits beside him and responds to his statements.

[The boy looks at the photo in his portfolio, turns towards a preschool staff and says]

Boy: look [he points at the photo] Karin, Karin

Staff: Is Karin there?

Boy: look, look [he points at the photo and says] Ingrid [and the staff responds]

Staff: No, Britta, it's Britta [The boy turns to the photo and nods his head and put his finger on Britta and says]

Boy: Britta [the staff   responds]

Staff: Britta, yes! [she turns the sheet to the next photo and the boy can see himself in the photo]

                [The boy continues to point at people in the environment and say their names. The staff provides feedback and confirms his statements. Then the boy sees Santa in a photo and says]

Boy: Santa [the staff   responds]

Staff: Santa [the boy says]

Boy: Good children [the staff responds]

Staff: Good children

The example shows that the boy (on his own initiative) uses photos to confirm the identity of people in his surroundings. He recognizes the person on the photo and wants to confirm that it actually is that person he sees in the room. The preschool staff supports him by giving feedback and repeating his suggestions. When the boy says a wrong name, the preschool staff corrects him and says the right name. The boy looks at the photo again and nods his head to confirm that he understands. The preschool staff changes photo, perhaps knowing that the boy is in the next photo. The boy sees himself and points at his belly; the preschool staff confirms it by saying his name. The boy continues to connect people in the environment with the photos until he sees Santa. The staff confirms the concept of Santa, and the boy links the concept to his experience by saying "good children"; thus, he is aware that Santa is not there, but he knows that Santa says "good children". In this way, he draws on his experience and uses a common phrase that he knows. This seems to be a way for him to decontextualize his language to convey information and create understanding between himself and the preschool staff.

3.4 Constructions/Functions Events

Five children four years of age are playing in a playroom furnished like a home environment. The preschool staff is sitting in a corner watching the children play. One of the children gets a plastic box with discarded mobile phones. He distributes the phones among his peers and they start to send text messages and discuss the mobile phones' functions.

Liza:	[holds her phone and presses the buttons like when text messaging and says] hey! ..this has a low signal…. [She is looking at Lotta]
Tor:	[holding his phone and pretending that he has called his mother] Hello mum….hello I'm hanging up now [he presses the button for hanging up the phone]
Lotta:	Here is a bag that you can put your new phones in that you have bought [another boy called Oskar says]
Oskar:	I have bought a bag.
Cicci:	I have two phones.
Staff:	How many phones are there, then?
Tor:	Look I've found it! [Tor comes to the staff and shows the phone that he has been looking for and holds the phones beside each other]
Staff:	Are they the same?
Oskar:	I also want that [the phone]
Staff:	Maybe you can return it to Oskar [preschool staff looks at Tor, who has borrowed the phone from Oskar, and says]
Staff:	a good friend [Tor gives one of the phones to Oskar] Look, now you are a good friend [preschool staff responds saying]
Lotta:	[Lotta has found out that some of the phones have a shell that can be opened and says] Liza has a phone that can be opened….Oskar has a phone that can be opened and Tor has a phone that can be opened.
Cicci:	And I….[meaning that her phone can be opened]
Staff:	Yes, and here we have another one.
Liza:	Then there are four of them.
Cicci:	I also have …one that you can…you know….I have one that's hard for you, and one phone that's hard for Tor [she's referring to the complex functionality of the phones]

In this example, the five children show that they are using the mobile phones based on their experiences. They share each other's experiences and examine the use and function of the mobile phones. A variety of concepts are being processed in the dialogue, and the children use their knowledge about the mobile phones' functions in the play activity and communicate what they are doing to each other. For example a girl says that she has a low signal to show that she knows how to look at the phone and that she understands that it is hard to send a text message if there is low signal strength. Some children pretend to play games and one boy pretends to call his mother. He also shows his knowledge of how to call someone by pressing the number buttons on the phone, as well as that he knows the symbol for "hang up". The preschool staff links concepts in the play activity by asking a boy if the phones *are the same?* The teacher also encourages Tor to be a *good friend* by supporting him with strategies to solve a problem. (The other boy had loaned out the phone and wanted it back.) Further, she tries to encourage Cissi's persistence in the play activity by asking her what she is doing, which makes the girl participate in the play. At the end of this example Lotta discovers that the mobile phone has a shell that can be opened. The other children start to explore their phones and give feedback, saying that their phones also have shells that can be opened. Liza sums up, saying that there are four phones that have shells that can be opened. This play activity shows that the children explore a variety of concepts that are essential for their meaning-making and understanding in the process of learning to read and write. Some of the children's ability to decode symbols indicates that they have started the process of translation of print units and their meaning.

3.5 Narratives Events

Eight children age 18 months to two and a half years are having circle time with two preschool staff. They are playing a game where they have a box of "summer memories". The box contains photos and writings, created by the children and their parents, documenting summer events that the children have experienced. The teacher puts her hand in the box, randomly picks a document and reads the name of the child. The child comes and sits beside the staff and they hold up the document so everyone can see the photos. The preschool staff helps the girl to talk about her summer memories.

Staff: And then what happened? [Staff looks at Sara]

Sara: We "fika" [Sara points at the photo where she is sitting and having "fika". Then she points at the photo with the rabbit]
            [The other children are interested and move forward looking and pointing with their fingers at the rabbit. A boy says]

Boy: There is Sara's rabbit and my rabbit is at home [Staff responds and points at the rabbit in the photo and says]

Staff: And where is the rabbit sitting? [The boy and Sara are pointing at the photo and Staff continues speaking] do you see what it's sitting on? [Three children say]

Children: A bridge…..

Staff: Yes a bridge [Staff nods her head and asks] I wonder if it's the same bridge as you have been to, Elin [Staff points at Elin's photo on the wall and Elin nods]

Elin: wonder if….[Staff responds]

Staff: do you think it's the same bridge? [Elin responds]

Elin: Yes….[and nods her head]

Boy: And where should we put Sara's? [The teacher responds and says]

Staff: Should we put up Sara's?......[The children look at the wall where other documentations of "summer memories" are hanging.]

This activity was carried out during circle time as a playful activity about summer memories, and the teacher supported Sara in retelling her experience of a specific summer memory. The photos from the event helped Sara and preschool staff to understand the context in which the event took place. Further, the other children's interest and understanding increased when they could see the photos while Sara and the preschool teacher retold Sara's summer memory. The Preschool staff also supported the dialogue by reading some notes that Sara's mother had written. Here, the dialogue was supported by linking it to written language, creating a meaningful literacy practice. Additionally, the written message mediates the information to a spoken and social activity. The children show their engagement by pointing at the photos and participating in the dialogue. The preschool staff also link to the concept *bridge* by pointing at Elin's photo showing the same bridge. In this way, the staff may have increased the children's meaning making and understanding about the concept bridge by linking the bridge to the children's lives. Further, a boy links his experience of *rabbit* to his life by saying that he also has a rabbit at home.

3.6 Searching/Finding Events

Outdoors in a meadow three preschool staff and eight children age 12 months to two and a half years are sitting on the lawn. The teachers encourage the children to search (one at time) for a photo of a bird on the lawn. When the children have found the photo they show it to their peers and try to say the bird's name.

[The preschool staffs encourage a child to go and find a photo of a bird and she says]

Staff 1:   Did you find a bird Agust? Let's see what kind of bird you found. [Agust looks at the photo and hands the photo to the staff. She says]

Staff 1:   A…..[She holds up the photo so all the children can see what kind of bird it is]

Peer: Crow! [Three staff responds]

Staff:1   A Crow! [Teacher 1 hands the photo back to Agust and says]

Staff 1:   Now go to Willy and say, go and find a bird [Agust goes to Willy who stands up]

Staff 1:   So, yes! [Willy goes to staff 2 and takes her hand, and they start looking for a bird]

Staff 2:   Now let's see if we'll find a bird. [Willy bends down and picks up a photo of a bird]

Staff 2:   You found a bird! [Willy has his photo in his hand and goes toward his peers, then he stops and picks up a dandelion [The staff says]

Staff 3:   He also found a flower! [Willy looks at his photo, and he cannot see a flower and he says]

Willy: No, no a bird, sparrow! [Teacher 1 responds]

In the example above, the staff encourages Agust and Willy to "find" a bird. The children know that the birds are in photos, so they search on the lawn. The staff links the concepts *find* and *bird* to the play activity by asking open-ended questions and confirming the children's answers. Staff 1 asks the children in the group questions to maintain the children's interest in the activity. Further, the concept "bird" expands the children's understanding, as they are challenged to recognize the bird on the photo and say the bird's name. However, Willy stops and picks up a flower (dandelion) on his way to the peer group. The preschool staff responds and says that he has found a dandelion. Willy looks at his photo and cannot see a dandelion. He protests, and says that he has found a sparrow. Willy links the concept *find* to the photo, and thinks that he has not *found* a dandelion because it is not on the photo, in some way he get confused, although he knows that the concepts *sparrow* and *bird* that are a wider concepts and are linked to the concept *find*.

4. Discussion

The aim of this study was to investigate how preschool teachers use social language promoting strategies and support concept development when interacting with preschool children in literacy-related play activities, by following research questions; a) How does preschool staff support children's concept development in literacy-related play activities, and b) what are the characteristic features of these literacy-related events and concepts?

Six thematic categories of events were discerned in the analysis of literacy-related play activities: colours/patterns, words/letters, pictures/photos, constructions/functions, narratives, and searching/finding events. However, the results in this study show that the events and preschool staff´s timing in communication as well as interaction have major role to support children´s concept development. The quotations in this study, illustrate that children´s practice of concepts in literacy-related play activities depends on the content of the events as well as preschool staff´s efforts, thus five conceptual themes were found in the dialogues: concepts that express actions; concepts referring to concrete things; descriptive concepts; spatial and location concepts; and specific name concepts (see table 1).

4.1 Preschool Staffs´ Strategies for Supporting Children's Concept Development in Literacy-Related Play Activities

The results show that few literacy-related play events were performed with children not older than three years, and preschool staffs seem to be present more often in literacy-play activities with children aged one to three years. This finding gives cause for concern, because the results of this study show that four- and five-year-old children also need adults to confirm concepts in literacy-related play activities. This is visible in the transcription example from the theme *constructions/functions,* where the children (four years old) confirm each other's experiences of concepts by exploring the functions of mobile phones. However, the staff encourages the children's persistence when she links to concepts in the play activity and supports strategies for problem solving and thinking, which the children will have difficulty handling on their own. The results confirm previous research findings (Smidt et al., 2012) that printed materials, objects and toys are necessary, but not sufficient tools, for literacy-related play activity, because the presence of an adult is of major importance in supporting children's language and concept development.

The results from the video sequences show that preschool staff was engaged and responsive in supporting children's concept development in literacy-related play, both in child- and adult-initiated activities. However, the analysis shows that children seem to be more responsive to open-ended questions in adult-initiated play activities. This indicates that children seem to predict that preschool staff will ask open-ended questions in these events. In contrast to child-initiated events, where the analysis indicates that during play activities the preschool children seem to be more eager to provide feedback based on their own thinking and meaning-making. In fact, some of the transcribed examples in this study show that the preschool children actually ignore preschool staffs´ intentions asking "what" questions in the child-initiated events. These actions may be related to Bronfenbrenner's (1999) bioecological model and the element of *time*. Time, along with timing, has a central impact on a developing person, and is interrelated with the person's characteristics such as motivation. When the literacy-play activities were child-initiated, the children were motivated and engaged on their own, based on their own experiences and interests. Mostly, the lens of the child's perspective was to be confirmed in his/her thoughts to create meaning, understanding and development. Thus, "what" questions from preschool staff were not in time or timing in the context of this specific event. Nitecki

and Chung (2013) highlight the difficulty of balancing between play and instructional activities. Some of the preschool staff in this study does not seem to reflect upon how they react to children's own control of their learning. This indicates that preschool staff might need more knowledge about children's construction of their own language competences in order to be more sensitive and aware of children's interactions and intentions in play activities. Clay (1991) argues that, *"Efforts and involvements are continuous, individual, personal, and powerful. Careful management of teacher attention can encourage children to change, and to take more control of their own activities and learning (p. 27)"*. However, this requires deeper knowledge based on theoretical findings about children's learning and development in literacy-related play activities. In previous research, data demonstrate that in-service training or intervention seems to affect changes in preschool language environment by deepening preschool staff understanding of language and literacy provide better conditions for language and literacy development among children (Dickinson & McCabe, 2001).

The transcribed video sequences in this study show that the children seem to acquire emergent literacy skills through a process of development in which they explore and test their skills in literacy-related play activities. They use their language as a tool for describing experiences (Barton, 2007; Vygotsky, 1962) to negotiate with, and to be confirmed by (Clay, 1991) their peers and preschool staff. In the transcribed sequence illustrating the event *pictures/photos,* the boy used the photos to confirm his thoughts, and used his bodily and verbal expressions as tools to create meaning and understanding. He also shows that he knows to decontextualize his language in order to create understanding between him and preschool staff. In the transcribed sequence illustrating the event *constructions/functions,* the children show their emergent literacy skills in the play activity by pretending to use the symbols and functions on the mobile phones, based on their own experiences. They confirm each other's thoughts and actions, and the teacher links concepts to the play activity and the children's own lives and interests. In the transcribed video sequence illustrating the event *narratives,* the girl is supported in her emergent literacy process by the preschool staff with the help of the photo and the written notes that her mother has written. The photo helps her to remember the event, and the notes increase her understanding that the text has a message that can be useful for creating understanding in another context. This activity is an instance of what Barton (2007) calls literacy practice because the girl used the photo and her mother's notes about the event to share her experience in a social context in order to create meaning and understanding among her peers and preschool teacher. Further, the transcribed sequence illustrating the event *colours/patterns* shows the girl exploring and testing the concept of *trading* to increase her understanding of it. In addition, she shows that she is interesting in being confirmed by the teacher. The boy also shows that he wants confirmation about the concept *two* when he says "two egg" and holds two eggs in his hand. Therefore, in literacy-related play activities the presence of a preschool staff able to confirm and challenge children's understanding, meaning-making, and development of concepts seems to be essential to promote their emergent literacy skills. Further, this study makes visible the unique opportunities to develop children's language and concept development in literacy-related play activities, in line with what has been reported by previous research (Nitecki & Chung, 2013; Saracho, 2004; Turnbull et al., 2009). However this study has highlighted the need for more research in this area.

Roskos and Christie (2011) claim that more theory is needed to analyse data regarding play contribution since play contributes to children´s thinking, fantasy, narrating and emerge children's language and emergent literacy skills. This study may have contributed to some understanding of how preschool staff can support concept development in literacy-related play activities to extend and increase preschool children's sense of the world (Clay, 1991). The results indicate that preschool staffs timing and sensitiveness are of great importance to challenge children in their literacy-related play.

The strengths of this study should be viewed in the light of its possible limitations. All observational methods, and especially video observations, have a risk of bias due to the mere presence of an observer or a camera. It is uncertain what impact this has had on the results, but the observers were very sensitive to any signs of distress shown by the children or teachers that could have been a result of the recording. The large and rich data material is both a strength and a limitation of the study. The limitation is the data reduction strategy; although theoretically grounded, and systematically conducted; data reduction will always include a subjective interpretation that can be coloured by the researcher's assumptions. In this study, the categorizations were thoroughly discussed by both authors, and all selected video sequences were watched several times, to make sure that the situations were interpreted correctly, in terms of what was being expressed by the children and preschool staff.

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Appendix 1. Selection criteria and analysis scheme

Code number:

Activity	Number of Children	Number of Preschool Staff

Meaning Unit Event:

Meaning Unit Concept:

Environment:

Instructional Climate: (Howes et al., 2008)

Feedback of children's experiences (Barton, 2007; Bronfenbrenner, 1999; Vygotsky, 1978).

Advanced language (Pianta & Hamre, 2009)

Open-ended questions (Pianta & Hamre, 2009; Whitehurst & Lonigan, 1998)

Expansion of performance (Pianta & Hamre, 2009; Whitehurst & Lonigan, 1998)

Analysing and reasoning (Howes et al., 2008; Pianta & Hamre, 2009)

Encouragement of responses (Pianta & Hamre, 2009)

Supportive communication: (Norling, 2013)

Play activity:

Spontaneous play

Dramatic play

Adult-initiated play

Child-initiated play

Access to objects or toys

Children's engagement