Entrepreneurial learning in Swedish preschools: Possibilities for and constraints on children’s active participation

To cite this article: Eva Insulander, Anna Ehrlin & Anette Sandberg (2015) “Entrepreneurial learning in Swedish preschools: possibilities for and constraints on children's active participation”, Early Child Development and Care, 185:10, 1545-1555
DOI: 10.1080/03004430.2015.1007967
To link to this article: http://dx.doi.org/10.1080/03004430.2015.1007967
**Abstract**

The website of the Swedish National Agency for Education states that preschools are to promote entrepreneurial learning. Many Swedish preschools, therefore, have started to work consciously with entrepreneurial learning as a way of fostering pupils’ creativity and ability to make their own decisions. This article investigates whether and how children in different preschool settings receive support and recognition in their efforts to make sense of the world around them. Nine preschool teachers and children from three preschools participated. Three video observations were conducted focusing on the work of each team of teachers. Our study challenges the assumption that an entrepreneurial learning design enhances pupils’ learning, creativity, and decision-making. Even though the ambition is to encourage such abilities, our observations demonstrate that the learning design and setting do not always give children the opportunity to be creative.

**Key words**

Entrepreneurial learning, Preschool, Children, Participation
Introduction
In 2012 the Swedish government launched the Swedish Innovation Strategy as a way for Sweden’s economy to remain strong (Government Offices of Sweden, 2012). As an important part of this strategy, entrepreneurial learning has been included in the Swedish national school curriculum (Swedish National Agency for Education, 2011), making it mandatory for all Swedish elementary and secondary schools to stimulate entrepreneurial competence. As far as preschools are concerned, the concept of entrepreneurial learning has not been included in the curriculum (Swedish National Agency for Education, 2010), but the website of the Swedish National Agency for Education states that preschools are also to be included in the strategy to promote entrepreneurial learning: ‘Entrepreneurship in school is a pedagogical approach. The methodology stimulates imagination and creativity. Motivation is important for entrepreneurial learning at all ages, from preschool to adult education’ (http://www.skolverket.se/, authors’ translation).

In the last few years, many Swedish preschools have apparently embraced the concept of entrepreneurial learning and have adjusted the entrepreneurial approach in accordance with each preschool’s purpose, conditions, and traditions. Several preschools have started to work consciously with entrepreneurial learning as a way of setting up a policy profile, and preschool teachers may attend university courses in entrepreneurial learning as a part of their developmental work. While earlier research has focused on how the entrepreneurial approach is being construed in schools, little is known about how preschools work with and interpret this particular approach to pedagogy (Berglund, 2012). A common perception amongst school teachers is that an entrepreneurial approach promotes pupils’ creativity and initiative (Berglund & Holmgren, 2007). Trusting one’s own ability thus seems to be an important part of entrepreneurial learning.

Within the frames of a larger project, this article focuses on settings that were described by the preschools themselves as entrepreneurial or that work along the lines of an entrepreneurial learning approach. This project shows that preschool teachers perceived that an entrepreneurial learning approach may strengthen children’s self-esteem by encouraging children to dare and to take initiative. An entrepreneurial approach in preschool should, according to study participants, foster the children’s interests and create opportunities for children to initiate and control activities. It is with these findings in mind that we now redirect our analytical focus slightly in order to examine these settings and what they afford in
terms of children’s active participation. Therefore, in this article, our aim is to investigate whether and how children in three different preschool settings received support and recognition in their efforts to make sense of the world around them. We address the following research questions: What are the characteristics of the three different preschools in terms of setting and design? What possibilities and constraints do the different preschool settings offer in terms of children’s active participation?

Theoretical framework
Research in the area of entrepreneurial learning can be described as fragmented and includes different aspects, definitions, methods, and theoretical insights (Wang & Chugh, 2014). Wang and Chugh point out that it is essential to know how learning takes place and when learning takes place in order to gain an understanding of the entrepreneurial process. Several studies directed towards schools present entrepreneurial learning as a way for educators to develop teaching characterised by engagement and inspiration. It seems to be taken for granted that entrepreneurial learning enhances pupils’ learning, creativity, motivation, and curiosity (e.g., Johannisson & Madsén, 1997; Falk-Lundqvist, Hallberg, Leffler & Svedberg, 2011). Otterborg (2006) holds that pupils need to be more entrepreneurial, given that the view on learning in society has changed and that pupils need to take greater responsibility for their learning. That formal education seeks an entrepreneurial ideal may also be considered an expression of new public management (Löwstedt, 1999).

In one of the few studies examining preschools, Seņkāne (2014) contends that ‘the entrepreneurial preschool teacher is not [the] usual, standard preschool teacher, but a teacher who looks to all process in preschool through another prism’ (p.193). She states that the preschool teacher’s leadership role encourages the learning process by doing, exchanging, experiencing, and experimenting, and through risk taking, problem solving, dramatisation, and interaction with the environment. The entrepreneurial preschool teacher wants to support the next generation in new possibilities and to realise development for the child both today and tomorrow. For the entrepreneurial preschool teacher, it is important to develop values and to take responsibility, to meet challenges such as shaping children’s identity and forming a creative individual. According to Seņkāne, it is important to strengthen children’s competence in information technology, as well as their digital and technological thinking, to guide children through proximal zone development (PZD) so that they reach their top potential, to
focus on the children’s needs, and to encourage the development of the children’s competence.

To a limited extent only has there been any critical reflection concerning how entrepreneurial learning is attributed meaning in policy documents, how the notion has been interpreted by teachers and pupils, and how it has become decisive for teachers’ didactic design (Berglund & Holmgren, 2013; Leffler, 2006; Leffler & Svedberg, 2004; Mahieu, 2006; Komulainen, Naskali, Korhonen & Keskitalo-Foley, 2011). However, Osgood (2004) describes the ways that educational policy is transferred to practitioners, and he believes that childcare professionals oppose new policy that emphasises entrepreneurialism, as they believe that such a development is harmful to preschool qualities. On the basis of results of his two studies, he assumes that the managerial entrepreneurial agenda, which emphasises profit and competition instead of the ethics of care, is inappropriate for early education and childcare practitioners. He refers to research showing that a focus on developing individualistic and entrepreneurial competence similar to that found in corporate organisations has traditionally ‘masculine’ traits—it is lean, aggressive, and rational. According to Osgood, this is inappropriate in the ‘feminine’ world of early childhood education and childcare, which is characterised by empathy, support, cooperation, and caring. The present study contributes to the field of entrepreneurial learning through its investigation and critical examination of interactions between preschool teachers and children in preschool settings.

In this research, we adopt a design-oriented and multimodal perspective on communication and learning (Selander & Kress, 2010). It has roots in sociocultural perspectives on learning, in that it puts forward the idea of situated learning and the role of artefacts in learning. Within the context of this article, the concept of design refers to the organising principles of a learning environment—that is, the setting (Rostvall & Selander, 2008). The setting comprises conditions for teaching and learning such as rooms, equipment, staff, steering documents, and institutional norms, as well as the curriculum and the teachers’ design for learning. Designing for learning always entails choices and creative processes in terms of making selections and arranging resources (Kress, 2010). Designing expresses, at the same time, epistemic values and social functions (Kress, 2010; Kress & van Leeuwen, 2001; van Leeuwen, 2005). Thus, how a learning activity is designed reflects how the learner is supposed to engage with the artefacts and the resources offered in the setting. A setting also involves expectations about what children can cope with given the institutional norms of the setting. Such norms and
routines will also influence what is recognised by teachers in terms of children’s learning (Rostvall & Selander, 2008; Selander & Kress, 2010). A learning design conveys possibilities for and constraints on active participation. Active participation involves taking a stand in relation to a message and to the perspectives and the value statements given, not just in relation to factual statements. Active participation is regarded as important for children’s ability to gain an understanding of democracy, to develop critical thinking, and to form an identity (Arnér, 2006; Emilson, 2008; Karlsson, 2009; Sandberg & Eriksson, 2010; Westlund, 2011).

Method
The present study was conducted at preschools in central Sweden in 2014. The sample consists of settings that have been described by the preschools themselves as entrepreneurial, or that work according to an entrepreneurial approach. Representatives of the preschools were asked to demonstrate situations that they considered typical and to provide an example of an entrepreneurial approach. These situations were video recorded and used as data in this study. In the larger project (Authors, 2014), a method of stimulated recall was used to make visible the meaning that Swedish preschool and primary school teachers ascribe to the notion of entrepreneurial learning. In the overall project, the video recordings were used as material for reflection in a group interview. The teachers reflected and commented on the videotaped situations with children, but these reflections have not been included in the present article.

The production of data was guided by established ethical considerations in research. Participation in the study was voluntary, and the participants’ identities have been protected (Swedish Research Council, 2011).

In this study, nine preschool teachers and children from three preschools participated. Three video observations were conducted focusing on the work of each team of preschool teachers. At the first preschool, the video footage consists of 60 minutes of film. The children were between four and five years old and worked with projects within the frames of the pedagogical model flashes of genius. The preschool has worked with the concept for four years, attempting to bring technology into the preschool agenda. The concept involves predetermined phases for the group to follow. Prior to the observed situation, the children had taken apart technical devices, such as telephones and tape recorders. All the children had made their own drawings of inventions and had started to glue different parts together into constructions. In the observed activity, they continued the gluing and completed their
inventions. During this particular activity, children were placed in three groups and worked individually with their inventions, each group assisted by one preschool teacher.

For the second preschool, the video footage is 80 minutes long. Children three to five years old had been divided into two groups. Four different activities were initiated by two preschool teachers: two drama activities, a collaborative exercise, and a reading-aloud session. The drama activities took place in a small room and involved the children in acting, supported by props and cards bearing images. The collaborative exercise involved building with big Lego blocks as the children sat on the floor separated by a large temporary partition. Each preschool teacher was assisted by a colleague; in total, there were two preschool teachers and two day-care attendants.

At the third preschool, the filmed activities lasted 120 minutes. Children were between three and five years old, and two preschool teachers initiated the work in an ongoing project about robots. The activities involved a session by the smartboard with pedagogical documentation and presentations of children’s drawings, followed by a session in which the children built robots or designed other figures of their own choosing.

The analysis of the observations was carried out in two steps. The video data were first transcribed and analysed deductively using the analytical concepts of design and setting. The second step involved comparisons of the different settings and interpretation from the point of view of active participation and recognition. In order to ascertain dependability and credibility, the analytical process started with initial analyses conducted by the authors individually (Miles & Huberman, 1994). In two joint sessions, the authors then compared and aligned their interpretations into a single coherent analysis.

Results
The aim of this article is to investigate whether and how children in three different preschool settings receive support and recognition in their efforts to make sense of the world around them. Here, we first offer a descriptive analysis of the design and settings of the three preschools. As stated earlier, a learning design reflects the interests of the preschool teachers and shapes the conditions for children’s engagement and meaning making. We end the analysis with a comparison and an interpretation of the possibilities and constraints that we observed for children’s active participation.

Setting and design
In the first preschool, the teachers had prepared the seating ahead of time and had started to take out material and constructions when the activity started. The children entered the room
and initially moved around, taking a look at other children’s inventions and constructions. Some of the children were reprimanded when they touched other children’s inventions. One preschool teacher assisted in dressing: white coats and spectacles were put on as a researcher’s costume. The seating at round tables and low chairs indicated that the children were to work in a concentrated fashion on seats assigned by the preschool teachers. Children were not given the option of sitting on the floor or at a place of their own choosing, or of fetching additional materials from another room. However, spare parts had been gathered in a large plastic bag, and children were encouraged to retrieve materials that they needed for their constructions.

Each invention consisted of a piece of cardboard onto which various parts had been glued. The preschool teachers were in charge of glue guns, apparently owing to a perceived risk. As one of the children tried to touch the glue gun, his hand was removed by a teacher. Instead, the children were to point where they wanted to attach certain parts, and the teachers glued those parts onto the construction. As a consequence, children had to wait their turn to receive help. The following example from our transcriptions illustrates work in which the teachers were in charge of the glue guns and the children waited their turn.

One of the preschool teachers has documented the work with an iPad. The children who are sitting at the table that she is in charge of wait for her to come and help them with their inventions. The teacher gets a glue gun and sits down at the table. She plugs in the glue gun and puts some glue sticks on the table. One boy immediately becomes interested in the glue gun and wants to touch it and the glue sticks. The preschool teacher removes the boy’s hand twice; instead, she wants him to grab pieces that he can attach to his invention. The boy grabs some pieces, and the preschool teacher encourages him to look at his drawing. He ignores that but points at the cardboard where he wants to glue the piece he has chosen. The preschool teacher puts glue on the piece and places it on the cardboard where the boy has pointed. She puts the boy’s hand on the piece so he can apply some pressure to it. At the same time, the teacher has also addressed a girl at the table who is waiting her turn to be helped.

This setting and design encouraged individual work with teachers as assistants but hindered the children from taking initiative. The setting allowed children and teachers to have conversations with others during the work, and the teachers encouraged the children to tell others about their inventions.

In the second preschool, one of the groups with four children and two adults was to start a drama activity. The small room invited calmer play and allowed the children to gather around a shared focus. They entered with the preschool teachers and were encouraged to sit in a circle
and to be quiet. The teacher had brought some props for the play *The Three Little Pigs*: cards with images and small props, including snouts. There was a mirror in the room that attracted the attention of one boy, and during the drama he used the mirror to watch himself while acting:

*The boy puts on a wolf’s nose and stands in front of the mirror. He makes roaring sounds and scratches the air with hands held like claws. The teacher asks him whether he remembers what to do. ‘Yes,’ he says, and roars towards the other boy. She turns towards the acting ‘pigs’ as she introduces them in her storytelling. The ‘wolf’ approaches the mirror with distinct steps and a firm posture, showing that he is strong. He pulls his shoulders up and protrudes his lower lip and puffs. The teacher reads about the wolf knocking on the first pig’s door, and the ‘wolf’ looks into the mirror—not towards the ‘pigs’—and makes a gesture of knocking. ‘And what did the wolf say?’ ‘Let me in!’ the ‘wolf’ says, still looking into the mirror. ‘Never!’ says one of the ‘pigs,’ and the teacher reads: ‘I’ll blow your house down.’ The ‘wolf’ inhales and blows forcefully towards the mirror. The teacher reminds him that he has to run to the second pig. He doesn’t move or speak, as he is occupied with his own reflection. The teacher asks what he does next, and when he doesn’t answer, one of the ‘pigs’ answers in his place: ‘Let me in!’ The boy playing the wolf repeats this, still looking at the mirror. He continues acting into the mirror, even as the teacher goes on to the third pig. The teacher asks several times what the wolf says as he knocks on the door, but the ‘wolf’ is still occupied with his own reflection. The drama ends as the ‘wolf’ runs away, having climbed down through the chimney and being burned by the soup.*

The teacher had planned for the pupils to act in a play, intending for the children to interact with each other. One boy who played the wolf was instead occupied with his own reflection. The teacher focused on the planned activity and tried to encourage the boy to follow the script. Our interpretation is that the planned activity was so important to the teacher that she did not notice that the boy was actually interacting with his own reflection. The drama was played several times. In this example, everyone could try different roles, but as we see it, it was possible to act only according to the plan (i.e., there was little room for creativity).

Later on, the group engaged in a drama activity in which the pupils played charades. This group was larger and gathered around a mat in a delimited area of the room. The material was already prepared: big Lego bricks and a partition that divided the group in half. One group was to build a pattern and to give oral instructions to the other group, whose members were to recreate the same pattern. The second group was behind the partition and thus could not see the original pattern. One child in each group was to represent the group and be in charge of the building. The others assisted or contributed as they wished. There was enough space for children to sit or lie down and to move around, and the activity was repeated several times. After a while, some of the children moved on to other activities. It was also possible to repeat
the activity somewhere else, in smaller groups, with their own rules and modifications. Later, there was a reading activity in which children chose a book in a voting procedure. In all these activities, pupils were encouraged to work together.

In the third preschool, the activity started in a large room where a smartboard and a mat created a clear focus. There were stools for children and the two preschool teachers to sit on, but as children moved around, lay down, or collected books, this was accepted as long as these actions were not disruptive. This project had been ongoing for some time; it had apparently been initiated owing to the children’s interest in a TV show about robots. The preschool teachers used the smartboard to project video-recorded material and drawings that children had produced earlier in the project. Children themselves could browse the images. The group also watched a YouTube video as inspiration. The space in front of the smartboard was used as a stage where children and preschool teachers could remember, demonstrate, and comment on earlier experiences and work. One girl was reluctant to present her earlier work and withdrew a bit from the group.

On the smartboard, the teacher shows a video clip of the children dancing like robots. As one girl sees herself on screen, she hides behind the furniture. When the film ends, she crawls back again, leaning on her chair. One of the teachers asks the children what they have done so far during this activity. The other children join in, showing and telling what they have seen and done. The girl listens and lies down on the other teacher’s lap. The others talk about what the robots from the TV series look like, and a teacher asks whether they should look at the children’s drawings and their constructions of robots. One at a time, the children participate in show-and-tell about their drawings. When the girl’s drawing is presented, she hides again.

Teacher 1: Don’t you want to tell?
Girl: No.
Teacher 1: No.
Teacher 2: May we tell?
Girl: No.
Teacher 1: Shall we skip it?
Girl: Yes.

After a while, the girl crawls back to the others. All the other children show their drawings, and in the end, the teacher asks whether the girl has changed her mind. The teacher asks questions, and it becomes clear that the girl now wants to participate: she nods as an answer. The girl browses the images until she finds her own. The teacher asks questions, and the pupil points at the screen as an answer. The teacher asks her about what she has drawn, but she remains quiet. She lets the other children and the teachers guess what it is.
She shakes her head if an answer is wrong and nods if one is right. She has drawn a butterfly and a caterpillar in a pupa. The other children point to her drawing and comment on it. Finally, she says the word ‘pupa.’

After the session, the group entered a studio with chairs and tables. Both children and teachers fetched material and sketches, and during the activity children sat by the table or on the floor. As children wanted new material for their robots or seek solutions in building, they were encouraged either to fetch things themselves or to ask a friend to help. They could use the glue gun, mix colours, and use the staple gun. They could use stools to reach material that was up high. The girl in the example above was not keen on building a robot and continued working on her idea of a butterfly:

The girl draws a new butterfly, and after a while, one of the teachers asks her whether she wants to construct her butterfly out of paper. She starts to choose from large wallpaper samples and cuts the paper into a large butterfly. She works on her own and finds materials and decorations for her butterfly, as well as scissors and tape to attach antennae made from pipe-cleaners and decorative ribbons. The teacher ask her what she has made and how the butterfly can fly. The girl lets the butterfly ‘fly’ in the air. ‘Do you need any more parts? Is there anything else you’d like to attach to the butterfly?’ the teacher asks. ‘I have to write my name,’ says the girl. She writes her name on it. ‘Some colour,’ the girl then says. She fetches a chair, the teacher follows her to the cupboard and assists her in finding crayons she likes. The girl takes them to the table and starts colouring her butterfly. She continues by attaching ribbons to it using tape. She fetches a glue gun and uses it by herself to attach the antennae, which seem to have fallen off.

Our interpretation of these examples is that the teachers did not perceive a problem when children did not act according to the plan. In this case, they encouraged the girl to continue developing her idea of a butterfly in her own way. The girl in this example was allowed to be innovative and creative even though she did not want to present her thoughts publicly.

Comparison and interpretation of possibilities for and constraints on active participation

The pedagogical model *flashes of genius*, used at the first preschool, prescribes a specific process whereby activities are to be carried out in a specific order. Children have limited possibilities for affecting and initiating new activities. That the material had already been prepared and placed on tables produced both opportunities for and constraints on learning and participation. Children were meant to realise an intention or a design idea, and the preschool teachers constantly posed questions regarding the children’s ideas and wishes. They recognised children’s sign-making, encouraging them to realise their design from a sketch as a set model or invention. They asked about the function of different parts and how these parts
were meant to be used. The costume allowed children to act within the framework of a set role, that of a scientist. On the one hand, children-as-scientists appeared important and had the power to make decisions about their inventions and constructions. Yet this role had been assigned to them by the preschool teachers.

With regard to role play, the first preschool resembles the second, in which props were included during the drama, indicating that this was a specific activity—one in which children could be powerful and decide for themselves. The props and the mirror allowed the children to act—and to dare to act—within the frames of the role. On the other hand, the drama had a fixed storyline and was initiated by the preschool teacher. The preschool teacher was encouraging and gave affirming feedback to the children as they acted. Their ability was recognised but also challenged when they were distracted, for example, by looking in the mirror. The children watching were encouraged to praise and applaud their friends. In the other example from the same preschool in which children built with Lego blocks, the activity was in a sense already set, complete with given roles and procedures. However, the children directed the activity to a large extent, and the teacher seldom took part in the game, instead smiling and acknowledging the knowledge expressed by children. The children came up with their own names for geometrical shapes, and if they were stuck, the teacher encouraged them to ask their fellow group members. In the end, it was the children who determined whether they had succeeded and, if not, what had gone wrong. This activity offered a model for the children to play with, and they could continue it in their own way, on their own terms.

In the third preschool, roles for both teachers and children were flexible, and children had great opportunity to control the activity. As the group constructed an invention related to what had been done earlier in the project, the preschool teacher documented statements in a mind-map. The children’s signs were recognised as they jointly looked at and discussed drawings and videos displaying their meaning making and knowledge. The setting allowed for active participation, since the activity had been initiated by the children, and the children could direct its course. It was equally possible not to participate or initiate activities outside of the agreed-upon theme work. The setting and the material appeared to encourage cooperation, and children could be independent to a large degree. The preschool teachers pursued a wait-and-see policy in which they did not value solutions as ‘good’ or ‘bad.’ The children were to test various strategies until they found solutions that worked, or they could ask a friend for
help. The preschool teachers named central notions and encouraged the children to document their learning processes.

Discussion
The aim of this study was to investigate whether and how children in three different preschool settings were supported and recognised in their efforts to make sense of the world around them. We investigated the characteristics of three preschools in terms of setting and design and explored the possibilities and constraints each setting offered in terms of children’s active participation. Earlier research has highlighted that entrepreneurial learning enhances pupils’ learning, creativity, motivation, and curiosity (e.g., Johannisson & Madsén, 1997; Falk-Lundqvist et al., 2011). Our study challenges such results by way of our examples and results. Even though the ambition amongst the preschool teachers was to encourage such abilities, our observations show that the learning design and setting do not always give children the opportunity to be creative. Being creative and curious is sometimes difficult for children in settings where preschool teachers use a pre-defined concept or planned activities that are meant to be enacted in a way that the teachers have determined.

On the other hand, there are examples in which the learning design does meet teacher’s aspirations to develop abilities that are associated with an entrepreneurial approach. As stated earlier, how a setting is designed reflects how the children are supposed to engage with the artefacts and resources offered. The setting also involves expectations about what children are considered able to cope with. Seņkāne (2014) describes an entrepreneurial preschool teacher as someone who sees all the processes in preschool through another prism and encourages learning processes through risk taking, problem solving, dramatisation, and interaction with the environment. Our study confirms that, but it also demonstrates that teachers sometimes lose their focus and overemphasise the activity. The design can hinder the realisation of entrepreneurial learning outcomes. When the preschool teachers have carefully prepared an activity and the resources that are to be used, it seems that the children are prevented from taking risks and creatively solving problems. Even though the teachers have stated that they wish to encourage abilities they connect with entrepreneurial learning, their learning design can become an obstruction.
Working with an entrepreneurial approach to learning can be a way of supporting children’s active participation. However, such effects cannot be taken for granted. It is important for preschool teachers to focus on children’s agency in designing activities and settings. Thus, to consciously and systematically reflect on preschools’ designs for learning is essential. An increased awareness of how entrepreneurial learning is realized in preschools may help preschool teachers to develop their everyday practice and to support early childhood education. Research has not fully highlighted that preschool teachers need to reflect on their didactic designs for entrepreneurial learning. The results of our study can be used by preschool staff, directors, and politicians. In particular, preschool staff can use these results to reflect upon their work and to develop their didactic understanding. Furthermore, the results can provide new insights about developing the preschool setting (Rostvall & Selander, 2008; Kress 2010) from an entrepreneurial learning perspective.

Funding
This work was supported by the regional council Sörmland.
References


