



## Approaches and educational assessments of children's speech, language and communication development in Swedish preschools

Ann Nordberg & Katharina Jacobsson

To cite this article: Ann Nordberg & Katharina Jacobsson (2021) Approaches and educational assessments of children's speech, language and communication development in Swedish preschools, *Early Child Development and Care*, 191:14, 2188-2203, DOI: [10.1080/03004430.2019.1697693](https://doi.org/10.1080/03004430.2019.1697693)

To link to this article: <https://doi.org/10.1080/03004430.2019.1697693>



© 2019 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 05 Dec 2019.



[Submit your article to this journal](#)



Article views: 4586



[View related articles](#)



[View Crossmark data](#)



Citing articles: 4 [View citing articles](#)

# Approaches and educational assessments of children's speech, language and communication development in Swedish preschools

Ann Nordberg <sup>a</sup> and Katharina Jacobsson <sup>a,b</sup>

<sup>a</sup>Department of Education and Special Education, University of Gothenburg, Gothenburg, Sweden; <sup>b</sup>Faculty of Education and Arts, Nord University, Bodø, Norway

## ABSTRACT

This study aimed to investigate how 33 preschool teachers' and 30 special educational needs teachers in Swedish preschools documented and described children's speech, language and communication development. The views on concepts as 'scientific basis', 'proven experience' and ways to follow language development for children in need of extra-support were examined. A questionnaire, including open and closed questions on teachers' work in the preschool practice, provided quantitative and qualitative data. Thus, a mixed method of triangulation was applied with concurrent data collection and analysis. The following themes emerged through the analysis: 'Reflected', 'Unreflected', 'Trust/rely on employer', 'Uncertain' and 'Conviction'. There were various systematic ways to follow the language development of children in need of extra-support. This indicates challenges for preschool professions, as the understanding of the meaning of important concepts varied which entails difficulties trying to work in the preschool practice based on these concepts.

## ARTICLE HISTORY

Received 31 August 2019  
Accepted 22 November 2019

## KEYWORDS

Language; communication; preschool; assessment instruments; scientific basis; proved experience

## Introduction

The field of early childhood education is enjoying a time of rapid growth and new discoveries. Efforts are needed to help teachers in preschools remaining up to date with new knowledge and acquire appropriate skills. Little research is performed on teachers' views on how they follow children's speech, language and communication development in preschools in Sweden (e.g. Norling, 2015; Renblad & Brodin, 2019). Preschool teachers and SEN teachers are collaborating when there are children in need of any kind of extra-support, for example, when there are children having problems with language and communication. In this study, preschool teachers and SEN teachers were asked about their work when following children's language development at preschools.

The importance of supporting children's speech, language and communication in educational contexts is well established for a good foundation for lifelong learning (e.g. Dockrell, Bakopoulou, Law, Spencer, & Lindsay, 2015; Lervåg, Hulme, & Melby-Lervåg, 2017; Mercer, 2008; Pramling-Samuelsson & Sheridan, 2016). *Speech* is the production of sounds that construct words and sentences and involves the coordination of breathing, vocal cords, vocal tract, nasal tract, tongue, jaw, tongue and lips (Kent, 1997). *Language* is a system consisting of the

**CONTACT** Ann Nordberg  [ann.nordberg@ped.gu.se](mailto:ann.nordberg@ped.gu.se)  Department of Education and Special Education, University of Gothenburg, PO Box 300, SE-405 30 Gothenburg, Sweden

© 2019 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group  
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

development, acquisition, maintenance and use of complex systems of communication, a language is any specific example of such a system (Tomasello, 2008). *Communication* (from Latin 'communicare', meaning 'to share') is an umbrella term and defined as 'the act of conveying meanings from one entity or group to another through the use of mutually understood signs, symbols or semiotic rules' in Online Etymology Dictionary (n.d.). Speech, language and the ability to communicate play an important role in a child's learning, social and emotional development and are crucial for children's future academic attainment (Dockrell, Howell, Leung, & Fugard, 2017). Certain kinds of communication activities at an early age, such as discussing, collaborating and problem-solving, help children to prepare for future academic subjects (Resnick, Michaels, & O'Connor, 2010). Language skills are the cornerstone of literacy skills, both reading and writing (e.g. Lonigan & Shanahan, 2010; Norling, 2015; Reichenberg, 2006; Renblad & Brodin, 2019; Snowling & Hulme, 2011).

## Aim

The overall aim of this study was to investigate how speech, language and communication development of children were described and documented in Swedish preschools. Furthermore, to increase the knowledge and understanding of the preschool teachers' and the SEN teachers' views on their approach and the educational assessments of children's speech, language and communication development.

## Research questions

- To what extent and what kind of approaches and assessments do preschool and SEN teachers use when they describe and document children's development in speech, language and communication and do they work systematically and on a scientific basis?
- What affects the preschool and SEN teachers' choice of educational assessment instruments and their approach when describing and documenting the development of children's speech, language and communication in preschools?
- In what way is speech, language and communication development described and documented for children in need of extra-support in preschools and are there any systematic follow-up plans made for these children?

## Swedish preschool

In Sweden, most children attend preschool from their early years. Often, the children are organized into toddler groups (1–3 years old), sibling groups (1–5 years old) and older groups (3–5 years old) and the size of these groups varies. In the Swedish Codes of Statutes (SFS, 2010:800) it is stated that the preschools have a special responsibility for children in need of a special support. In the national preschool curriculum (Swedish National Agency for Education, 2018), as well, it is stated that preschools should pay particular attention to children who need guidance and stimulation or a special support for various reasons.

## Preschool teachers and SEN teachers

The Swedish preschool teacher training is a three-and-a-half-year academic education, based on scientific evidence and proven experience. Preschool teachers have acquired knowledge and abilities necessary to independently take responsibility for pedagogical activities in preschool and provide for children's right to care, development and learning.

To undergo education as a SEN teachers a teacher degree is needed. In addition, it is necessary with at least three years of teaching experience at schools or preschools before starting the three-year advanced university education for this profession.

SEN teachers work with children who need extra-support and guidance with their learning, for example, in preschools. The SEN teachers work with children in need of extra-support and have the knowledge in order to guide them to reach their full educational potential. A key aspect of working with children with SEN is to identify the children's needs and be responsible for creating a stimulating and supportive learning environment. SEN teachers act as qualified mentors and advisers on educational issues for colleagues, parents and other stakeholders. Preschool teachers and SEN teachers have a teaching assignment based on the Swedish Codes of Statues (SFS, 2010:800) and the curriculum for preschools (Swedish National Agency for Education, 2018).

### ***Pedagogical documentation***

Early Childhood Education and Care (ECEC) or Early Childhood Education (ECE) has been become a growing policy priority in many countries. The importance of quality in ECEC has been widely acknowledged (Taguma, Litjens, & Makowiecki, 2013) and, within this, 'documentation' has been a discussed topic. Researchers in the field of ECEC, as Kalliala and Pramling Samuelsson (2014), stated that preschool teachers always have, in some form, documented on children's development and learning processes. Their view on, what they call, 'pedagogical documentation' is that it serves as a tool that makes pedagogical work visible and also as a way to develop the teachers' work to follow the children's learning processes. It is, consequently, a way of evaluating children's development and learning and can be performed by, for example, observations of the children or using different tools for assessment (Kalliala & Pramling Samuelsson, 2014). Pedagogical documentation emphasizes a specific value of documentation, that is, using it for analyses, reflections and interpretations. Kennedy (1999) proposed that this kind of documentation used by teachers is a way to display children's different abilities and skills. Documentation about children's learning and development is often made with the purpose to make the ECEC visible for the preschool professions. Another purpose of the documentation is to make the children and the activities they are involved in at preschools visible for the children themselves. Documentation can become a basis for evaluations of the educational environment and can serve as a basis for capturing needs for development, goal fulfilment and assessment of the quality of the preschool practice (Vallberg Roth, 2012). MacDonald and Sanschez (2007) emphasized that teachers may feel a pressure to use standardized tools (for example the use of norm-referenced language tests) in the preschool practice. Using pedagogical documentation can be an alternative tool, proposed by Buldu (2010), because it could show more nuances of the children's development. Strengths and qualities of children's competences can then be more visible in comparison to using a standardized assessment material.

### ***Work on scientific basis and proved experience***

In the Swedish Codes of Statues (SFS, 2010:800) it is stipulated that education in Swedish preschools and schools shall be founded on: 'scientific basis and proven experience'. The Swedish National Agency for Education (2019) define scientific basis as follows: 'critically reviewing examining testing and putting individual factual knowledge in a context and searching for explanations and causal links in available relevant research'. The interpretation of proven experience is that it must be tested, documented and generated over a longer period of time and also by many people in school (Swedish National Agency for Education, 2019). Proven experience means that it is built by the professions working in preschool/school and that it is as relevant

as the academically acquired knowledge. If the proven experience is shared, documented and evaluated then it can be transferable and be useful in several contexts (The Swedish National Agency for Education, 2019). Proven experience can be built by the professions working in preschool and school. First an idea is tested by a person (experience). This idea is then tested by several colleagues, a group, through shared reflections and documentations (proven experience). Finally, the same idea is tried by several groups and documented and systematized in order to be able to be passed on (proven experience) (The Swedish National Agency for Education, 2019). Research findings have shown a need for more knowledge about the scientific ground and proven experience concerning the teachers' work in Swedish preschools (Vallberg Roth, 2018).

### ***Educational language observation and assessments***

There are different ways to follow children's language development at preschools. Gjems (2010) reported that this can be done in various ways. One approach is to observe the children's language and communication in daily activities and document them. Other ways are using schedules designed with predefined categories or using detailed language tests which are often carried out outside the everyday environment together with a trained test leader.

One commonly used instrument to assess children's language in Swedish preschools is using the TRAS [Early Registration of Language Development] instrument (Espenakk, 2013), which consists of an observation chart and a manual developed in Norway translated to Swedish. The language ability will be assessed in the following areas: interaction, communication, attention, language understanding, meta-linguistic awareness, pronunciation, word production and the ability to construct sentences. Within each area, language skills are defined concerning the age categories of 2–5 years. The manual describes language development both generally and specifically for each area. Another instrument is the 'New SIT' – Språkligt Impressivt Test [Language Impressive Test] (Hellqvist, 2010) used for assessing the receptive language comprehension. It is mainly intended to be used for children with delayed or deviant language development. The 'New SIT' – Språkligt Impressivt Test [Language Impressive Test] (Hellqvist, 2010) can be used with multilingual children and children with hearing losses. For children from about 2.5 years and for children with another mother tongue the instrument Koltis – KÖmmunikativ och Lingvistisk bedömning av barn på ett Tidigt Stadium [Communicative and Language Assessment of Children at an Early Stage] (Rejnö Habte-Selassie, 2010) can be used to assess small children's language production, language understanding and communicative ability utilizing a set of toys. In the case of multilingual children, assessments would be preferably made in every child's language. One suitable way of assessing multilingual children is to use GrUS – Grammatisk undersökning av svenska som andraspråk [Grammatical Assessment of Swedish as a Second Language] (Salameh, 2015). GrUS is used for paying attention to individuals who show signs of too slow language development of their second language and to identify monolingual Swedish-speaking children with a grammatical language disorder. More knowledge is needed about the quality and use of educational assessment instruments in Swedish preschools. In Norway, educational assessments for social functioning and reading proficiency were explored (Arnesen, Braeken, Ogden, & Melby-Lervåg, 2019). They concluded that the instruments used in schools had, in some aspects, weak or undocumented qualities; therefore, they proposed the need of more differentiated assessment instruments in school to facilitate the teachers' work.

This current study aims to explore how assessments of children's speech, language and communication were performed and followed up by teachers in Swedish preschools. To our knowledge, this area has not been closely explored before in Swedish preschool context. Therefore, in this study, we would like to investigate the use of educational assessment instruments and teachers' approach in preschools when describing children's speech, language and communication development.

## Theoretical framework

This study is characterized by the social constructivist perspective where knowledge is something constructed by us, as humans, and therefore no true knowledge nor objective knowledge exists. Social constructionism challenges predetermined ideas about the world, arguing that the knowledge we construct is contextual to the time we live in. Both history and culture are specific to the time we live in now and it affects what knowledge we construct (Berger & Luckmann, 1966; Burr, 1995, 2003). In this study, attempts are made to make the participating teachers' learning processes visible concerning their ways of following the children's speech, language and communication development in preschool. Little empirical research has been dedicated to the process by which preschool teachers acquire new knowledge and skills in this area.

A theoretical and contextual explanation to professional skill development was proposed by Dall'Alba and Sandberg (2006), suggesting that professional's skill acquisition is accounted for as they develop an 'understanding of, and in, practice'. From this perspective, advanced skill levels are achieved through experience and practical application in 'real-work' situational contexts. Contextualized knowledge and experience are thus intertwined and interdependent. This conceptualization of professional development understands professional learning processes as an ongoing and fluid interaction of instruction with experiences, opportunities and exchanges that occur in a reflexive and transactional manner as specific professional practices within a particular setting are defined, achieved and reformulated toward continual self-improvement and programme standards.

## Methods

### Participants

There were 33 preschool teachers and 30 SEN teachers from municipalities located in the south-west of Sweden participating in this study. The reason why these two preschool-based professions took part in this study was that they collaborate to increase their professional understanding for the needs and development of the children at preschool, especially for those children in need of extra-support. SEN teachers contribute to competence development concerning children in need of extra-support at preschools. Thus, these two professions have the same goal, that is, to support children to achieve their full potential when it comes to developing different abilities such as the ability to communicate. The participating teachers' professional experiences are presented in Table 1.

### Materials

In Sweden there is an increased use of assessment material and approaches to follow children's language development (Pramling-Samuelsson, 2010). There is also a variety of different types of documentation of the individual child and several different assessment instruments available. However, Johansson (2016) concluded that there is a great variation of materials and approaches used by teachers in preschools. When searching for a suitable material to answer the research questions about how the teachers' documentation, descriptions and views on their approaches to children's language development, no suitable material was found. Therefore, three questions were constructed by the authors, based on the research-based knowledge (e.g. Johansson, 2016), to answer the research questions.

**Table 1.** Descriptive data on the participants.

Profession	Professional experience
Preschool teachers ( $N = 33$ )	4–42 years
SEN teachers ( $N = 30$ )	2.5–25 years

The following three questions were posed to the participants:

1. Do you use any kind of assessment material for children's speech language and communication development?  
*(It may be pre-made materials for assessment or materials you have produced at the preschool.)*
2. Do you know if the assessment material/follow-up materials of speech, language and communication used at your preschool are based on proven experience and/or scientific basis? *(Feel free to develop your answer).*
3. If children need support regarding speech, language and communication, is there any systematic way to follow the development of these children?  
*(If you answer YES to question 3, describe which way you follow children's speech, language and communication development in your preschool practice.)*

Accordingly, there were three yes/no questions and, in addition, the participants were encouraged to develop their yes/no answers from two of the questions in a qualitative in-depth way. The three questions concerned factors of importance for getting knowledge about how speech, language and communication development of the children were described and documented. There was also a question that specifically concerned children in need of special educational support regarding language and communication. The questions were, therefore, created and formulated with a mixed-method strategy for collecting data (Creswell, Plano Clark, Gutmann, & Hanson, 2003).

### **Data collection and analysis**

Each sampled preschool and SEN teacher in this study was given the three questions to collect information on what kind of language assessments and approaches they used, on views on the scientific basis for educational language assessment in the preschool they work and about the use of systematic language assessments for children in need of extra-support at the preschools where they work. Two of the three questions, posed to the teachers, were both closed and open, accordingly the answers provided both quantitative and qualitative data. Thus, the mixed method of triangulation was applied with concurrent data collection and analysis (Caruth, 2013; Creswell, 2009; Creswell et al., 2003). The answers from the three yes/no questions are presented through descriptive statistics.

For the descriptive and qualitative data from the participant's answers of the open questions included, a content analysis was conducted. The results were analysed through a procedure of side-by-side comparison in order to provide validation for each other and give a foundation for concluding. During this analysis, the qualitative data were used to explore quantitative findings. The specific work with the qualitative data consisted in sorting the data into tables to create an overview and then read carefully and repeatedly by the researchers (the authors). To process and analyse the data, a qualitative content analysis was chosen, that is, the statements were systematically reviewed and coded and thus a reduction of the data material was performed (Jacobsson & Skansholm, 2019). Similarities and differences, contradictory answers and prevalent patterns in the data material were produced, which resulted in a thematization. Five themes emerged from the analysis of the interview transcripts.

### **Ethics**

Information about the project was given to the participants before they answered the questionnaires and it was emphasized for them that their participation was voluntary and that the data only would be used for scientific purposes and be anonymized so no individual person could be identified (Swedish Research Council, 2017). The participants answered questions about their work in preschool, which is considered as a sensitive environment by several researchers (e.g. Larsson, Williams, &



Zetterqvist, 2016, 2019). In this current study all of the participants work in preschools, a sensitive environment. The children at the preschools were not direct research participants. Still, as the content of the study is about the issues in the preschool environment, the national ethical regulations were discussed by the researchers during the planning stages of this study and also before the data collecting process. Ethical issues like this is of the highest priority when research is conducted about the aspects of the preschool environment (Larsson et al., 2019).

## Results

The results of this study are presented in accordance with the research questions.

First, the kind of assessments and approaches the teachers used when describing children's speech, language and communication development at preschools are reported (Table 2). Then, the proportion of the teachers who work systematically and on a scientific basis are reported (Table 3). The themes drawn from the participants' reflections on their work on a scientific basis are also reported and they were as follows: 'Reflected', 'Unreflected', 'Trust/rely on employer', 'Uncertain' and 'Conviction'. The themes are described in more detail below and in Table 4. Finally, the teachers' documentation of speech, language and communication development for children in need of extra-support are presented in Table 5 and in the running text.

### **Educational assessment instruments and materials used by the participants**

The different types of assessments and materials, used by the participants when following the children's language development, are shown in Table 2.

#### ***Preschool teachers' use of educational language assessment instruments and materials***

Almost half of the preschool teachers in this study reported that they used the TRAS instrument (Espenakk, 2013) when assessing the children's communication in the preschools. It was also quite common to use it only in the cases when children were in need of extra-support. However, there were some of the preschool teachers who reported that they had stopped to use the TRAS instrument, because they did not believe that it was grounded on a scientific basis. They did not consider it as useful in their preschool practices. Also, materials produced by the participants themselves were used by 15% of the preschool teachers and 37% of the SEN teachers when assessing the children's communication.

#### ***SEN teachers' use of educational language assessment instruments and materials***

There were 40% of the SEN teachers who used various types of instruments and approaches when assessing the children. Consequently, the most common way for them was to mix different working methods and instruments to assess and follow children's development. It was also common for them to use materials made by themselves (37%).

### **Scientific basis used for educational language assessment in the preschools**

The proportion of the preschool teachers and SEN teachers who considered that the educational language assessments were scientifically based, as shown in Table 3.

#### ***Preschool teachers' use of scientifically based assessments***

A majority of the preschool teachers reported that the assessments they used were considered to be scientifically based. They explained that their affirmative responses about this were due to their trust that the assessments in the preschools were exclusively selected by those who were responsible for



**Table 2.** Answers from preschool teachers and Special Educational Needs (SEN) teachers about what kind of educational language assessments and materials they use.

	Educational instruments and materials used for following children's speech, language and communication development							
	TRAS*	TRAS* – used only for the children in need of extra support	TRAS* was used before, but not any more	No assessment instrument or material used	Material for assessment produced by themselves	Mix of assessment materials and approaches: TRAS*, observations, materials produced by themselves	Observations of daily activities	Do not know
Preschool teachers ( <i>N</i> = 33)	15 (46%)	7 (21%)	4 (12%)	1 (3%)	5 (15%)	–	1 (3%)	–
Special educational needs teachers ( <i>N</i> = 30)	–	–	–	3 (10%)	11 (37%)	12 (40%)	3 (10%)	1 (3%)

**Table 3.** Answers from preschool teachers and Special Educational Needs (SEN) teachers about their use of scientifically based language assessments.

Participants	Answers about the use of scientifically based language assessments				
	Yes, the educational language assessments used are scientifically based	No, the educational language assessments used are NOT scientifically Based	Some assessments are scientifically based and some are not	I do not know	No answer
Preschool teachers (N = 33)	23 (70%)	8 (24%)	–	1 (3%)	1 (3%)
Special educational needs teachers (N = 30)	13% (43%)	5 (17%)	8 (27%)	3 (10%)	1 (3%)

**Table 4.** Selected quotes on views about to what extent the work is systematic and on scientific basis are illustrated with examples representing the themes crystallized during the content analysis.

Professions	Themes	Description of the themes	Illustrative quotes
Preschool-teachers Special Education Needs (SEN) teachers	'Reflected'	Statements showing that the participants had reflected on the choice of tools available to use.	'We do usual observations of the children and use this to follow up the children and don't use prefabricated material no longer' 'We have worked with material, that we have used and evaluated for a long time'
Preschool-teachers Special Education Needs (SEN) teachers	'Unreflected'	Statements referring to no reflections on why a material is used or not.	'We have used such material that we have created in the preschool' 'It is stated in the instruction manual of the TRAS instrument that it is scientifically based'
Preschool teacher	'Trust-rely on the employer'	Statements showing there is a belief that materials are selected by employers (e.g. preschool principals) or that the entire municipality is quality assured and provides the opportunity to document properly.	'I assume that the TRAS instrument is a material based on research and proven experience. Why else would our employer impose it on us?'
Preschool teachers Special educational needs teachers	'Uncertain'	Statements showing that the participants not having the knowledge whether the material is scientifically founded or based on proven experience.	'No, I do not know anything of this is scientific basis or proven experience' 'I am not sure about in what way the material is based on proven experience?'
Special educational needs teachers Preschool teachers	'Conviction'	Statements that point to the assumption that materials they worked with during their university education, both are scientifically founded and based on proven experience.	'We have used the material during our education at the university, and they have chosen it.' 'I am convinced of that this the best material to use in our preschool'

**Table 5.** Answers from preschool teachers and Special Educational Needs (SEN) teachers about the use of systematic language assessments for children in need of extra support.

Participants	Answers about the use of systematic language assessments for children in need of extra support				
	Yes, there are systematic educational language assessments for children in need of extra support	No, we do not use any systematic educational language assessments for children in need of extra support	Sometimes we use systematic educational language assessments for children in need of extra support	Do not know	No answer
Preschool teachers (N = 33)	22 (67%)	11 (33%)	–	–	–
Special educational needs teachers (N = 30)	23 (77%)	3 (10%)	2 (7%)	1 (3%)	1 (3%)

preschool activities (e.g. principals) or by SEN teachers. Thus, they were convinced that the leaders and responsible of the preschool had chosen scientifically based assessments for them to work with in the preschool practice.

Some preschool teachers reported that they were sure that the assessments were scientifically based without any further explanations and reflections. On the contrary, there were some of the preschool teachers who stated that they were absolutely sure that the assessments they used were not scientifically based. Another point of view that emerged was that more information and knowledge about scientific basis of the assessments and approaches they used would be desirable for them to obtain.

### ***SEN teachers' use of scientifically based assessments***

Around half of the SEN teachers reported that the assessments and approaches that they used were scientifically based, they did not explain this further or had any educational discussion about their affirmative responses. However, some of them express an uncertainty about what scientific basis and proven experience really mean.

Nearly a third of the SEN teachers pointed out that some of the assessments and approaches they used were scientifically based. There were also SEN teachers that reported about language support projects going on in preschools in the same municipality where they worked, but they were not informed about it or took any part in it. Material made by themselves were used. They reported that their 'systematic quality work' (not defined) at the preschool was a form of working on a scientific basis. Furthermore, they highlighted the close collaboration they have with the preschool teachers when assessing and following the children's speech, language and communication development at preschool.

### **Themes drawn from the participants' views on their use of scientifically based and/or proven experience assessments/material**

Views from the participants about their use of scientifically based assessments have been analysed and the themes drawn from the participants' views on their work on scientific basis were as follows: 'Reflected', 'Unreflected', 'Trust/rely on employer', 'Uncertain' and 'Conviction' and presented below and in [Table 4](#).

#### ***Reflected***

Reflected includes statements showing that the material had been experienced and proved in the teacher's preschool practices. The teachers declared that they worked with a conscious approach and attitude. Both scientific grounded material and material that was not on scientific ground were used. There were preschool teachers, who made an active choice not using purchased and standardized assessment material, because they declared that they wanted to get an overall picture of the children and not to be restricted to certain predetermined development areas not compatible with the goals of the curriculum of the preschool. Several of the teachers gave us an answer that the quotes below illustrate:

I think that the observations we perform, added to planning, implementation and follow-up can be seen as scientific activities, and it is inspired from our competence development training and from our training to SEN teachers at the university. It is proven experience, because we have used the strategy for a long time and share it with other participants in the organization.

Many of the participants said that they use observations to document the children during playtime, in 'fairy tail – sessions' and during outdoor activities in order to look at how the children communicate. If

they are uncertain about the children's development, they could use e.g. norm-referenced language tests.

### **Unreflected**

Unreflected is a theme showing statements showing the participants' lack of reflections concerning why the material was used. Material and work methods were taken for granted because the preschool teachers had used them for many years. The reason why they used a certain material or assessment instrument was that the entire municipality had decided that all preschool should use it. Both preschool teachers and SEN teachers stated that they worked in accordance with what was stipulated in the national curriculum for preschools, thus not research-based, yet they believed they worked on a scientific basis.

Some of the participants refer to the authors of the material and what they write about the material concerning proven experience and scientific base. An illustration of this follows in the quote below:

I have not thought about this earlier, I really don't know, I have taken it for granted that it is a material with high quality and it has been used here for many years. And we also talk about this during our education! But I have not discussed with my colleagues if it is scientifically based, I just thought that it was useful in the work, and I like the material because it is a way to see where the children are in their development.

### **Trust/rely on employer**

Trust/rely on employer is a strong belief in principals and heads of the preschools and that they had the selected material they use are based on a scientific basis and proven experience. They assumed that the material chosen by the persons responsible for the preschools were of high quality and were the best suitable for describing and documenting the children's development in a multifaceted way:

We are required to work with the material in our district and we have participated in three training courses on the material so I think it is well thought out by our principals. All preschool in our district work with the material!

The quote above is an illustration of their assumption that the employers' selection of material was well substantiated.

### **Uncertain**

Uncertain statements are showing that participants did not have the sufficient knowledge about the material' scientific basis and proven experience. Several of the participants would very much like to get more knowledge about this issue, for example what the criteria are that can guarantee that the material could be grounded on proven experience and how the best scientific ground was found for it.

Some of them expressed uncertainty about whether the materials they used really were grounded on research and proven experience:

I wish to have more information and education about the material we use. When I started to work at the preschool, it was never discussed why we use this particular material. I use it, but I think that material for assessment must be discussed and evaluated by the teachers together.

The talk about what proven experience and scientific base is a little bit confusing and we have no consensus on the concepts.

The above quote illustrates uncertainty about the scientific base of the materials they were using.

### **Conviction**

Conviction included statements when the participants firmly believed that the assessments and materials they used were scientifically based or on proven experience. They had learnt about

different materials during their training at the university or during competence development training. They were convinced about this, because they had critically reviewed the material together, either at the university or together with colleagues at the working place. Some of the preschool teachers declared that the assessments and materials were obtained from the SEN teachers and therefore considered them reliable and they found no reason to question the choice of material:

The material is created by the SEN teacher – and she showed us how the material was based on research and also how there are material we use which is based on proven experience by the long-term work with documentation and experience of it we have had here.

A preschool teacher was convinced that the material they used was the best one to use. They used the material based on proven experience. They analysed the development of the children through a form of, what the preschool staff called, a ‘scientific lens’, that is, they reflected their pedagogical documentation against current research in the field.

### ***Views on systematic language assessments for children in need of extra-support***

The proportion of the preschool teachers and SEN teachers who reported that they performed educational language assessments for children in need of extra-support for their language skills in a systematic way, as shown in [Table 5](#).

Most of the participants used systematic educational language assessments for children in need of extra-support. Among both preschool teachers and SEN teachers it was common to use material from the Swedish National Agency for Education (2019) – a systematic quality work model – as a base to create a supportive language learning environment for the children. Follow-up plans, based on identified needs among the children, were also used to systematically support the children. Furthermore, using pedagogical documentation, cooperating with the children’s parents and childcare centres were other parts of their systematic work. Many of the preschool teachers used pedagogical strategies directed towards all the children in the preschool groups, strategies based on the special needs of individual children, they considered this way of work as systematic. Sometimes competence development occurred through systematically arranged collegial reflections. It was reported that some preschools did not have any kind of systematic way of working with this group of children.

Furthermore, the SEN teachers used observations systematically, both during play activities and one-to-one situations, to create an overall picture of the children’s needs. Sometimes SEN teachers offered professional guidance to preschool teachers about how to analyse their overall didactic work.

## **Discussion**

This study aimed at answering questions about preschool teachers’ and SEN teachers’ assessments and approaches when describing the children’s speech, language and communication development in Swedish preschools. Assessing and following children’s communication development in an educational context is a demanding and complex task. It requires differentiated work methods and reliable and valid information about different assessment instruments and how to improve the preschool practice to follow children’s development. The participants in this study expressed uncertainty about this, because they did not have sufficient knowledge if the assessment instruments and work methods used had any scientific basis and/or proven experience. Similar conclusions were drawn by Arnesen et al. (2019) when exploring the quality and use of educational assessment instruments in schools in Norway. They concluded that the assessment instrument had weak or undocumented qualities and new more efficient assessment instruments were needed that supported the teachers work to a greater extent.

The results in this study revealed that the TRAS [Early Registration of Language Development] instrument (Espenakk, 2013) was the most frequently used instrument when assessing children’s language and communication. However, the results showed that the participants expressed

'uncertainty' about this assessment instrument. They were uncertain if the TRAS instrument (Espenakk, 2013) really had a scientific ground. These findings about assessments in Swedish preschool context were in line with Johansson (2016) who pointed out ambivalence and uncertainty among preschool teachers about the assessments of children in preschools. A conclusion drawn by Johansson (2016) was that concepts for assessment in preschool were vague and the procedures of the assessments were very much emphasized instead of what sort of learning the children needed (Johansson, 2016). In this current study there was also uncertainty expressed, for example, how to define what it is to 'work in a systematic way'. The participants' understanding and interpretation of this and their ways to work systematically varied greatly. Also, when the participants expressed their views about using systematic language assessments/approaches for children in need of extra-support, were they uncertain about how to define and how to work with these children in a systematic way. Their working methods varied widely. Some of them considered working in a systematic way, that was to use action plans and others meant it was to cooperate with the children's parents, a variation of interpretations existed.

The findings drawn from the participants' views on their use of systematic and scientifically based approaches/assessments indicate that competence development for preschool staff is needed to make the teachers more confident and knowledgeable about their work methods. However, the results of this study were obtained from a limited number of participants, still, we can speculate and even suspect that there is a similar and general need for competence development concerning the definitions and meaning of those important concepts in other preschools. The need for more competence development concerning the children's language and communication development in Swedish preschools is emphasized by Norling (2015), to strive for the curriculum's intentions to increase the children's learning.

A proposal how to perform professional development about the meanings of important concepts could be through 'collegial discussions and reflections'. In that case, different kinds of competence development can be performed and colleagues can, through structured cooperation, acquire the knowledge about different matters (Edwards-Groves, Grootenboer, Hardy, & Rönnerman, 2018; Rönnerman, Edwards-Groves, & Grootenboer, 2017, 2018; Timperley, 2011). This kind of competence development through structured collegial discussions were recently successfully performed in preschools in Sweden (Nordberg, 2019). Collegial reflections contributed to the improvements of the staff's language and communication support to the children. Structured observations and collegial discussions were performed and only after six weeks the staff's communication-facilitating behaviours towards the children at the preschools had increased.

### **Limitations**

There are a number of limitations to the present study that should be noted. No suitable material existed when asking the teachers about how their documentation, descriptions and views on their approaches to children's language development. The questions posed to the teachers are, however, based on research-based findings (e.g. Johansson, 2016) about the great variation of approaches and assessments used in preschools. Furthermore, the sample was relatively small. Still, any study alike on this topic has not yet been performed in Sweden, so the findings are, however, of interest.

### **Conclusions**

Given the results of this study regarding the uncertainty expressed by the participants about the meaning of important concepts such as 'work on a scientific basis' should call for awareness. However, the participants' views varied, some 'reflected' quite deeply if the materials and assessments they used were scientifically based, others had a more 'unreflected' approach. There were participants that 'trusted' that the materials selected by others, for example the municipal management

of the preschool, were based on a scientific ground. There were also other participants who were 'convinced' about the firm scientific ground of the materials, because they, themselves, reviewed the material critically together with colleagues or at the university during their professional training. Furthermore, it was found that educational documentation and norm-referenced language tests were used in the preschool practices when following the children's speech, language and communication development, sometimes both were used as a complement.

Another finding was that the main part of the participants stated, with certainty, that they used systematic language assessments for children in need of extra-support, this can be compared to the participants' uncertainty about working on a scientific ground.

Finally, we can conclude that the results of this study indicated that there are challenges for the professions working in the preschool practice. Variations of the participants' understanding of the meaning of concepts, such as 'scientific basis' and 'proven experience', were found. More research focusing on how to work, based on such concepts in the preschool practices context, is needed.

## Acknowledgements

Many thanks to the preschool teachers and the SEN teachers who made this study possible. Also, MSc Marie Kjellsson is thanked for the help with the data collection.

## Disclosure statement

No potential conflict of interest was reported by the authors.

## Notes on contributors

**Dr Ann Nordberg**, PhD, senior lecturer at the University of Gothenburg, Department of Education and Special Education, Faculty of Education, Sweden. She is a teacher educator with research particularly focused on strengthening children's communicative participation in preschools and schools. Particular attention is paid to the professional development to scaffold language development through the use of evidence-informed tools for profiling features of language support in preschools and schools. The connection between language support and reading and writing is also focused. Another research interest is to develop the knowledge of the professional development and competence of teachers.

**Dr Katharina Jacobsson**, PhD, senior lecturer at the University of Gothenburg, Department of Education and Special Education, Faculty of Education, Sweden and an associate professor at Nord University, Faculty of Education and Arts, Nord University, Norway. She educates at the SEN teachers' programme and also principals at the school headmaster national programme. Research interest focuses on school improvement, leadership in schools and professional development of teachers and principals.

## ORCID

Ann Nordberg  <http://orcid.org/0000-0003-2305-5138>

Katharina Jacobsson  <http://orcid.org/0000-0001-5148-6088>

## References

- Arnesen, A., Braeken, J., Ogden, T., & Melby-Lervåg, M. (2019). Assessing children's social functioning and reading proficiency: A systematic review of the quality of educational assessment instruments used in Norwegian Elementary schools. *Scandinavian Journal of Educational Research*, 63, 465–490. doi:10.1080/00313831.2017.1420685
- Berger, P. L., & Luckmann, T. (1966). *The social construction of reality: A treatise in the sociology of knowledge*. Garden City, NY: Anchor Books.
- Buldu, M. (2010). Making learning visible in kindergarten classrooms: Pedagogical documentation as a formative assessment technique. *Teaching and Teacher Education*, 7(26), 1439–1449.
- Burr, V. (1995). *An introduction to social constructionism*. London: Sage.
- Burr, V. (2003). *Social constructionism* (2nd ed.). London: Routledge.
- Caruth, G. D. (2013). Demystifying mixed methods research design: A review of the literature. *Melva International Journal of Education*, 3(2), 112–122.



- Communication. (n.d.). Retrieved from [https://en.wikipedia.org/wiki/Online\\_Etymology\\_Dictionary](https://en.wikipedia.org/wiki/Online_Etymology_Dictionary)
- Creswell, J. (2009). Editorial: Mapping the field of mixed methods research. *Journal of Mixed Methods Research*, 3(2), 95–108.
- Creswell, J. W., Plano Clark, V. L., Gutmann, M., & Hanson, W. (2003). Advanced mixed methods research designs. In A. Tashakkori, & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioural research* (pp. 209–240). Thousand Oaks, CA: Sage.
- Dall'Alba, G., & Sandberg, J. (2006). Unveiling professional development: A critical review of stage models. *Review of Educational Research*, 76, 383–412. doi:10.3102/00346543076003383
- Dockrell, E. J., Bakopoulou, I., Law, J., Spencer, S., & Lindsay, G. (2015). Capturing communication supporting classrooms: The development of a tool and feasibility study. *Child Language Teaching and Therapy*, 31, 271–286. doi:10.1177/0265659015572165
- Dockrell, J. E., Howell, P., Leung, D., & Fugard, A. J. (2017). Children with speech language and communication needs in England: Challenges for practice. *Frontiers in Education*, 2, 35.
- Edwards-Groves, C., Grootenboer, P., Hardy, I., & Rönnerman, K. (2018). Driving change from 'the middle': Middle leading for site based educational development. *School Leadership and Management*. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/13632434.2018.1525700>
- Espenakk, U. (2013). *TRAS: Observation av språk i dagligt samspel* [Early registration of language development]. Helsingborg: Nypon.
- Gjems, L. (2010). Kartlegging av barns språk. Godt for hvem – godt for hva? [Assessment of Children's language. Good for whom – good for what?]. *Nordic Early Childhood Education Research*, 3, 175–182.
- Hellqvist, B. (2010). *New SIT – Nya SIT – Språkligt Impressivt Test* [Language impressive test]. Lund: Studentlitteratur.
- Jacobsson, K., & Skansholm, A. (2019). *Handbok i uppsatsskrivande – för utbildningsvetenskap* [Handbook in essay writing – for educational science]. Lund: Studentlitteratur.
- Johansson, E. M. (2016). *Det motsägelsefulla bedömningsuppdraget: en etnografisk studie om bedömning i förskolekontext* [The contradictory features of assessment activities – an ethnographic study on assessment activities in a preschool context in Sweden] (Doctoral thesis). University of Gothenburg, Gothenburg. Retrieved from [https://gupea.ub.gu.se/bitstream/2077/46830/6/gupea\\_2077\\_46830\\_6.pdf](https://gupea.ub.gu.se/bitstream/2077/46830/6/gupea_2077_46830_6.pdf)
- Kalliala, M., & Pramling Samuelsson, I. (2014). Pedagogical documentation. *Early Years: An International Research Journal*, 2(34), 116–118.
- Kennedy, B. (1999). *Glasfåglar i molnen* [Glass birds in the clouds]. Stockholm: Stockholms Universitets förlag.
- Kent, R. D. (1997). *The speech sciences*. University of Michigan, Albany: Singular Publishing Group.
- Larsson, J., Williams, P., & Zetterqvist, A. (2016). *Conducting research in preschool as a culturally sensitive environment*. Paper presented at 26th EECERA conference, Dublin, Ireland, 31 August – 3 September.
- Larsson, J., Williams, P., & Zetterqvist, A. (2019). The challenge of conducting ethical research in preschool. *Early Child Development and Care*. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/03004430.2019.1625897>
- Lervåg, A., Hulme, C., & Melby-Lervåg, M. (2017). Unpicking the developmental relationships between oral language skills and reading comprehension: It's simple, but complex. *Child Development*, 89, 1821–1838. doi:10.1111/cdev.12861
- Lonigan, C. J., & Shanahan, T. (2010). Developing early literacy skills: Things we know we know and things we know we don't know. *Educational Researcher*, 39, 7.
- MacDonald, M., & Sanschez, A. (2007). Provoking dialogue: Teaching and learning through images and document. *Scandinavian Children*, 2(35), 25–30.
- Mercer, N. (2008). Talk and development of reasoning and understanding. *Human Development*, 51, 90–100.
- Nordberg, A. (2019). Support of language and communication in the 'Tambour situation' in Swedish preschools. *Early Child Development and Care*. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/03004430.2019.1645134>
- Norling, M. (2015). *Förskolan – en arena för social språkmiljö och språkliga processer* [Preschool – an arena for social language environment and linguistic processes] (Doctoral thesis). Mälardalens högskola Västerås, Västerås, Sweden. Retrieved from <https://www.diva-portal.org/smash/get/diva2:783021/FULLTEXT02.pdf>
- Pramling-Samuelsson, I. (2010). Ska barns kunskaper testas eller deras kunskaper utvecklas i förskolan [Are children's knowledge to be tested or developed in preschool?]. *Nordisk Barnehegeforskning*, 3(3), 159–167.
- Pramling-Samuelsson, I., & Sheridan, S. (2016). *Lärandets grogrund* [The ground of learning]. Lund: Studentlitteratur.
- Reichenberg, M. (2006). Att läsa mellan och bortom raderna [Reading between and beyond the lines]. In L. Bjar (Ed.), *Det hänger på Språket* [It depends on the language] (pp. 213–236). Lund: Studentlitteratur.
- Rejnö Habte-Selassie, G. (2010). *Koltis – KÖmmunikativ och Lingvistisk bedömning av barn på Ett Tldigt Stadium* [Communicative and language assessment of children at an early stage]. Lund: Studentlitteratur.
- Renblad, K., & Brodin, J. (2019). Improvement of speech and language skills. *Early Child Development and Care*. ISSN: 0300-4430 (Print) 1476-8275. Retrieved from <https://doiorg.ezproxy.ub.gu.se/10.1080/03004430.2018.1564917>
- Resnick, L. B., Michaels, S., & O'Connor, C. (2010). How (well structured) talk builds the mind. In R. Sternberg, & D. Preiss (Eds.), *From genes to context: New discoveries about learning from educational research and their applications* (pp. 163–194). New York, NY: Springer.
- Rönnerman, K., Edwards-Groves, C., & Grootenboer, P. (2017). The practice architectures of middle leading in early childhood education. *International Journal of Child Care and Education Policy*, 11, 2–20.

- Rönnerman, K., Edwards-Groves, C., & Grootenboer, P. (2018). *Att leda från mitten – Lärare som driver professionell utveckling* [Lead from the middle-teachers performing professional development]. Stockholm: Lärarförlaget.
- Salameh, E.-K. (2015). *GrUS – Grammatisk undersökning av svenska som andraspråk* [Grammatical assessment of Swedish as a second language]. Helsingborg: Nypon.
- SFS. (2010:800). *Swedish code of statutes. School law*. Stockholm: Ministry of Education. Retrieved from <https://www.riksdagen.se/sv/dokument-lagar/dokument/svenskforfattningssamling/skollag-2010800sfs-2010-800>
- Snowling, M., & Hulme, C. (2011). Evidence based interventions for reading and language difficulties: Creating a virtuous circle. *British Journal of Educational Psychology*, 81, 1–23. doi:10.1111/j.2044-8279.2010.02014
- Swedish National Agency for Education. (2018). *Curriculum for the preschool, lpfö-98. Revised 2019*. Stockholm: Skolverket. Retrieved from [www.skolverket.se](http://www.skolverket.se)
- Swedish National Agency for Education. (2019). Retrieved from <https://www.skolverket.se/skolutveckling/inspiration-och-stod-i-arbetet/stod-i-arbetet/pedagogisk-dokumentation-i-forskolan>
- Swedish National Agency for Education. (2019). Retrieved from <https://www.skolverket.se/skolutveckling/forskning-och-utvarderingar/forskningsbaserat-arbetssatt/forskningsbaserat-arbetssatt-nagra-nyckelbegrepp>
- Swedish Research Council. (2017). *God forskningssed* [Good research ethics]. Stockholm: Vetenskapsrådet.
- Taguma, M., Litjens, I., & Makowiecki, K. (2013). *Quality matters in early childhood education and care: Sweden 2013*. Paris: OECD.
- Timperley, H. S. (2011). *Realizing the power of professional learning*. London: Open University Press.
- Tomasello, M. (2008). *Origin of human communication*. London: The MIT Press Cambridge.
- Vallberg Roth, A.-C. (2012). Different forms of assessment and documentation in Swedish preschools. *Nordisk Barnehageforskning*, 5, 1890–9167.
- Vallberg Roth, A.-C. (2018). What may characterise teaching in preschool? The written descriptions of Swedish preschool teachers and managers in 2016. *Scandinavian Journal of Educational Research*. Routledge, ISSN 0031-3831. doi:10.1080/00313831.2018.1479301