Teaching in preschool: Multivocal didaktik modelling in a collaborative conceptual replication study

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The problem of what characterises preschool teaching emerged in 2010, when the Swedish Education Act began regulating teaching in Swedish preschools. There are few comprehensive long-term studies that investigate teaching conducted in collaboration between preschool teachers, managers, and researchers, and that focus on testing not just *one* but *multiple* theory-informed teaching arrangements in preschools. Furthermore, there is a dearth of replication studies in general and of conceptual replication studies of collaborative research focused on preschool teaching in particular. This themed issue presents the results of a collaborative conceptual replication study based on a research and development (R&D) programme entitled "Multivocal teaching in preschools". The issue is practically and theoretically positioned in a Continental–Nordic didaktik tradition, specifically a critical-reflective one. The articles in this themed issue present the results of testing theory-informed teaching arrangements in preschools, in which didaktik are combined with different content and teaching foci. One overarching contribution in this publication is the concept of *multivocal didaktik modelling*. This concept has been tried out in comprehensive collaborations and includes scientific bases and proven experiences that emerged in multivocal traces and didaktik models, in plural. Multivocal didaktik modelling are positioned within the framework of democratic values and in relation to the complex teaching realities in preschool. Overall indications of a contribution to knowledge development involve theory-informed practical development and practice-based theoretical and conceptual development. The concept of multivocal didaktik modelling can be further elucidated in future studies.

Keywords: Collaborative research, conceptual replication, didactics, didaktik model, preschool teaching.

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1. Introduction

In Swedish preschools, teachers seem to struggle with the concept of *teaching* in their day-to-day practices. When preschool teaching entered into the Swedish Education Act in 2010 (SFS 2010:800) and into the preschool curriculum in 2018 (SKOLFS 2018:50), some uncertainty emerged regarding what teaching could mean in preschools. To address this, it was stipulated that teaching and education should rest on scientific grounds and proven experience. However, there proved to be a dearth of both teaching-oriented Nordic research and proven experience of teaching in preschools (e.g., Sheridan & Williams, 2018; Tallberg Broman, 2015; Vallberg Roth, 2020). Policy documents, research, and practice were out of step with one another. This led preschool teachers and managers from eight school authorities to investigate what could characterise teaching in preschools. The question was studied in the research and development (R&D) programme "Multivocal teaching in preschools" [Flerstämmig undervisning i förskolan – Fundif] between 2018 and 2021. This themed issue presents the results of the research portion of the programme[1]. In the following the research portion of the programme is called collaborative research.

The position paper starts to position the collaborative research in a Nordic and Anglo-Saxon curricular context and in relation to earlier Scandinavian research on teaching in preschool. The teaching concept is first positioned in relation to learning, and thereafter didaktik is related to "learnified didaktik". This leads to what didaktik is referred to in this thematic issue. The issue is practically and theoretically positioned in a Continental–Nordic didaktik tradition, specifically a critical-reflective one. Furthermore, the need for conceptually replicating studies is emphasized, to

strengthen the reliability of research findings by conducting a study of the same phenomenon as in a previous study (teaching in preschool), but from a somewhat different angle. Didaktik models are highlighted and multivocal didaktik modelling is positioned within the framework of democratic values and in relation to the complex teaching realities in preschool. The articles in this themed issue present the results of trying out theory-informed teaching arrangements in preschools, in which didaktik are combined with different content and teaching foci. Finally, knowledge contributions, credibility and usability of the collaborative research are addressed.

1.1 Preschool teaching in a Nordic context – the need for collaborative research

Swedish preschool is in line with a Nordic tradition based on welfare-state ambitions that are highly ranked in international comparisons (OECD, 2017). In Sweden, 85% of all children aged one to five years attend preschool (Swedish National Agency for Education, 2020). Nordic preschools have similar systems of management by objectives, so it is more relevant to refer to, translate, and employ results from Nordic rather than non-Nordic research when examining Swedish preschools [*förskola*]. However, in the Nordic region, teaching is not written into policy documents for *dagtilbud* in Denmark, *barnehagen* in Norway, or *lekskolan* in Iceland (Eidevald & Engdahl, 2018; Vallberg Roth, 2014). Teaching is mentioned, but not further defined, in policy documents for early childhood education and day care in Finland (Eidevald & Engdahl, 2018; Vallberg Roth, 2014).

According to earlier research, teaching in preschool can be both planned and spontaneous (see for example Vallberg Roth, 2020; Vallberg Roth, Holmberg, Löf, & Stensson, 2019). It can take place at different times and in rooms, places and environments both indoors and outdoors, with events that can, for example, evoke care interactions, play, theme- and project-oriented activities, exploration, creation and critical actions (see for example Björklund & Pramling Samuelsson, 2018; Catucci, 2018; Eidevald, Engdahl, Frankenberg, Lenz Taguchi, & Palmer, 2018; Hedefalk, 2014; Hildén, Löfdahl Hultman, & Bergh, 2018; Jonsson, & Thulin, 2019; Nilsson, Lecusay, & Alnervik, 2018; Pramling & Wallerstedt, 2019; Rosenqvist, 2000; Sandberg, Lillvist, & Ärlemalm-Hagsér, 2018). A knowledge overview concerning preschool teaching emphasises that "More research is needed in the area. It is advantageous to conduct research as a collaboration and a shared learning experience between researchers and preschool teachers, in order to be able to develop preschool

education and didactics together" (Sheridan & Williams, 2018, p. 13). In recent years, research on preschool learning and teaching has increased in Scandinavia (Furenes, Reikerås, Moser, & Munthe, 2021), but it is still more learning than teaching foci in this research. Despite the increased Scandinavian research on preschool teaching, there are still few comprehensive and long-term studies that investigate teaching conducted in collaboration between preschool teachers, managers, and researchers, and focus on trying out not just *one* but *multiple* theory-informed teaching arrangements in preschools. Furthermore, there is a dearth of replication studies in general and of conceptual replication studies of collaborative research focused on preschool teaching in particular (Vallberg Roth, Aasa, Ekberg, Holmberg, Sjöström, & Stensson, 2021). This themed issue presents collaborative research conducted with eight school authorities. We have developed knowledge about teaching and didaktik[2] in preschools in Sweden. However, research into teaching in preschool contexts in other countries adds important perspectives.

1.2 Nordic and Anglo-Saxon curriculum traditions

Broadly speaking, two different curriculum traditions prevail in preschools internationally (Bennett, 2010; OECD, 2012, 2020; Åsén & Vallberg Roth, 2012). The Anglo-Saxon tradition tends towards introducing school-like content in preschools. Further, Anglo-Saxon countries tend to be more results-oriented and are attentive to providing learning objectives for the children to achieve. The other tradition, referred to as the Nordic and Central European tradition, endeavours to unite education and care (the concept of *educare*). Objectives for preschools are overarching and focus on what activities will offer the children rather than on what knowledge and skills the children should have acquired by a certain age. In this sense, the preschool curriculum in Sweden (SKOLFS 2018:50) does not focus on learning outcomes with knowledge requirements at the individual level.

2. Teaching in relation to learning

Teaching differs from learning (see e.g., Biesta, 2017; Illeris, 2015). Teaching is relational and may entail focusing someone's attention on something (Doverborg et al., 2013; Imsen, 1999; Jank &

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[2] We use the German word didaktik (with use of the letter k), which is common in continental Europe and the Nordic countries, and not the Anglo-Saxon word didactics.

Meyer, 2006; Uljens, 1997) or, quite simply, *displaying* something [något är under visning] in co-action (between at least two actors). The teacher can add something new and open the world, so that the children do not only live in their own world.

Teaching can open opportunities in the world that go beyond what the children have experience of and can imagine on their own (e.g., Biesta, 2017).

Learning can, but does not have to, be the aim of teaching (Biesta, 2017). In practice, teaching can be conducted without learning: "There is no automatic connection between teaching and learning" (Illeris, 2015, p. 16). Learning "is every process in living organisms that leads to a lasting change in capacity that is not due solely to forgetfulness, biological maturity, or ageing" (Illeris, 2015, p. 18). With reference to the Swedish Education Act, teaching requires a relationship between a teacher who teaches something, and the person being taught (cf. Biesta, 2017). This is not the case for learning. Learning does not require a teacher. Children can also learn outside of preschool and educational institutions. The focus of this themed issue is on teaching in preschools for which learning is an aim, but which cannot be reduced to learning.

2.1 Didaktik in relation to "learnified didaktik"

Didaktik is a knowledge foundation for teaching (e.g., Bengtsson, 1997; Broström, 2012; Brante, 2016; Comenius, 1632/1989; Ingerman & Wickman, 2015; Jank & Meyer, 2019; Uljens, 1997; Uljens & Ylimaki, 2017). The Didaktik premise derives from the Continental–Nordic tradition, and it has been discussed and developed in connection with curriculum theory and educational leadership (cf. Broström, 2012; Deng, 2021; Gundem & Hopmann, 1998; Uljens & Ylimaki, 2017; Westbury, Hopmann, & Riquarts, 2000).

In earlier research on subject-based didaktik in preschool, Swedish and Nordic studies place more emphasis on the "learning side" than on the "teaching side" of didaktik (Tallberg Broman, 2015; Vallberg Roth, 2020), although there are also examples of studies that focus on teaching (see e.g. Björklund & Pramling Samuelsson, 2018; Doverborg et al., 2013; Hammer, 2012; Hedefalk, 2014; Holmberg & Vallberg Roth, 2018; Pramling & Wallerstedt, 2019; Rosenqvist, 2000; Sæbbe & Pramling Samuelsson, 2017; Sheridan & Williams, 2018). The understanding of teaching in preschools shifts depending on the theoretical perspectives and approaches used in the studies

(Furenes, Reikerås, Moser, & Munthe, 2021; Tallberg Broman, 2015; Vallberg Roth, 2020). For example, some sociocultural perspectives focus on "situated learning". Variation theory in "learning studies" focuses on intentional learning. Other examples include pragmatic perspectives focusing on "reflective learning" or "learning of reflective experience" and post-constructionist and post-humanist gateways may focus on "rhizomatic learning". These perspectives evoke what can be called a "learnification of didaktik" (Vallberg Roth, 2020). The learnification of didaktik can be linked to Biesta's (2017) concept of "learnification", which pertains to the changing use of language towards "learning" and "learners" instead of teaching.

Critical didaktik (see section "Critical-reflective didaktik") are not prominent in Nordic and non-Nordic preschool studies (Furenes, Reikerås, Moser, & Munthe, 2021; Tallberg Broman, 2015; Vallberg Roth, 2020). Moreover, as earlier mentioned, there is a lack of long-term comprehensive and collaborative studies focused on teaching in Swedish preschools (cf. Sheridan & Williams, 2018). Therefore, this three-year collaborative research strives to address the challenges, opportunities, and circumstances faced by today's preschool in relation to the higher ambitions of the preschool mission (see e.g., OECD, 2017; Skolinspektionen, 2018; SKOLFS, 2018:50).

In the collaborative research at hand, different theoretical gateways were integrated when the participants; preschool teachers, managers, and researchers, tried out various theory-informed teaching arrangements (see section "Theory-informed teaching arrangements"). The collaborative research created opportunities to shift the focus from learning to teaching by introducing didaktik into all teaching arrangements.

2.2 Critical-reflective didaktik

Based on the aim and research questions in this themed issue, the collaborative research draws from previous research that focuses on didaktik as a practical theoretical resource. Different didaktik directions have developed (e.g., Bengtsson, 1997; Jank & Meyer, 2019; Kroksmark, 2007; Selander, 2017; Uljens, 1997), and we do not purport to provide a complete picture of didaktik.

The collaborative research is guided by critical didaktik (cf. Biesta, 2010, 2011; Brante, 2016; Broström, 2012; Klafki, 1997), and we try out critical-reflective didaktik (cf. Uljens, 1997).

Thus, in the collaborative research, didaktik is linked with Bildung as "a process in which the child is 'shaped' through education for the encounter with an unknown future" (Brante, 2016, p. 57). Broström emphasizes (see position paper in this themed issue) that "Didaktik focuses on the goal of democracy and Bildung" (Klafki, 1995, p. 191)". Moreover, critical-reflective didaktik is linked with national objectives to be strived for in the Swedish preschool curriculum, which have a predetermined trajectory without predetermined endpoints. The preschool objectives to be strived for do not include "shall" objectives stipulating knowledge requirements at the individual level. Critical-reflective didaktik involve reflecting on alternatives to what is taken for granted in relation to an uncertain future. Specifically, we have replaced the modal verb "shall" (see e.g., Jank & Meyer, 2019; Uljens, 1997; Selander, 2010) with "can" in the research questions. We link "shall" to traditional normative didaktik and "can" to critical-reflective didaktik (Vallberg Roth, 2020). "Can" opens the possibility for alternatives to the choices teachers can make. We do not purport to establish once and for all "what shall be taught" or "what characterises teaching". Instead, we focus on "what *can* be taught" and "what *can* characterise teaching". Sörlin (2019) writes: "Not all statements are true. Not all ideas are equally good. Not all values are equally valuable. Education is our common critical conversation, both politically and democratically. Knowing together means enabling. Not knowing is an obstacle to knowledge-based action" (p. 175).

There are different ways to use and relate to criticism. One example is to view criticism as a way of relatively unilaterally emphasizing negative meaning, such as shortcomings and inherent contradictions. Furthermore, studies can emphasize a critical approach without the critical gaze preferably being turned to one's own chosen position (cf. Elbow, 2006). We try to cultivate a concept of criticism that is multi-voiced and "multi-reversible" [flersidig], which allows us to turn, twist and look at both challenges and opportunities with the choices that are made. We attribute this to critical-reflective didaktik (Vallberg Roth et al., 2021).

3. Dearth of conceptual replication studies – repetition with variation

Studies focused on replicating and repeating original studies are scarce (cf. Dreber Almenberg & Johannesson, 2018), particularly those focused on conceptual replication within the area of teaching in preschools (Vallberg Roth at al., 2021). Conceptual replication (Egidius, 2020) aims to strengthen the reliability of research findings by conducting a study of the same phenomenon as in a previous study, but from a somewhat different angle. Thus, the research portion of Fundif is a conceptual replication and repetition of the research portion of the prior R&D programme "Teaching in preschool" [Undervisning i förskolan – Undif[3]]. Based on similar aims, we tried out theory-informed teaching arrangements in both Undif and Fundif. In terms of content, in both programmes, we focused on music, mathematics, and fundamental values in relation to sustainability. In Fundif, the somewhat different angle regarding teaching occurred with the addition of content-related traces focused on mathematics/programming; music/digital technology; and natural sciences including chemistry, movement, and health in relation to the revised curriculum (SKOLFS, 2018:50). Furthermore, the research group in Fundif was expanded and changed to include didaktik researchers who matched the changed content. As regards method and selection, we reduced the number of participating municipalities and preschools from 10 municipalities and about 130 preschools/departments in Undif to 8 municipalities and about 45 preschools/departments in each arrangement in Fundif.

Consensus and congruence (Egidius, 2020) emerged between the materials generated from the teaching arrangements in the two programmes. The emergence of traces, concepts, and models in Undif (Vallberg Roth, 2020; Vallberg Roth et al., 2019) recurred partially in Fundif (Vallberg Roth et al., 2021). We tried out the collective concept *multivocal didaktik modelling* in both programmes. Within the framework of the concept, further developed models and concepts emerged in Fundif (Vallberg Roth et al., 2021). Testing the concept has entailed a shift from a relatively vague idea of what the concept could mean to a clearer and more precise meaning of the concept in relation to

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[3] See https://www.ifous.se/undervisning-i-forskolan/

the research findings in the two programmes. Furthermore, to our knowledge, no other studies focus on conceptual replication within this field.

3.1 Didaktik models and multivocal didaktik modelling

Didaktik has "always been in the service of humanity by offering tools that help her understand her world and act in it" (Kansanen, Hansén, Sjöberg, & Kroksmark, 2017, p. 29). Didaktik models can be viewed as tools that can help us to navigate and act in a multifaceted world – when we try to exist in and with the world and not just with ourselves (cf. Biesta, 2017). Accordingly, we have tried out the concept of multivocal didaktik modelling in comprehensive collaborations where we have included scientific bases, proven experiences, multivocal traces, and didaktik models, in plural (see Vallberg Roth et al., 2021, and the articles in this themed issue).

Didaktik models can be used both as support in teaching and as interpreting instruments for research purposes (e.g., Jank & Meyer, 2006, 2019; Uljens, 1997). Practice and theory meet in didaktik models (Ingerman & Wickman, 2015; Sjöström, Eilks, & Talanquer, 2020: Wickman, Hamza, & Lundegård, 2020). Examples of fundamental didaktik models are didaktik questions and the didaktik triangle, which encompasses teacher, child, and content in different combinations (see e.g., Comenius, 1632/1989; Jank & Meyer, 2006, 2019; Rosenqvist, 2000; Uljens, 1997).

Didaktik models can be systematically developed through "didaktik modelling" (Ingerman & Wickman, 2015). Didaktik modelling refers to how teachers, based on theory-informed arrangements or models for teaching, develop contextual relationships between co-planning, teaching, and co-evaluation (cf. Ingerman & Wickman, 2015). Co-planning and co-evaluation include at least two participants, such as teacher and pedagogue (like a child minder in a work team), teacher and child, or teacher and manager (Vallberg Roth et al., 2021). This themed issue has the main focus on the teachers´ co-plans, teaching and co-evaluations, which also include the children.

Didaktik modelling focuses on identifying, testing, and refining didaktik models. Didaktik modelling may entail developing didaktik knowledge in a collaborative effort involving teachers and researchers (Ingerman & Wickman, 2015). The process entails efforts to shape and reshape

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teaching based on children and groups in unique situations, and types of knowledge, and on the experiences and organisational circumstances of the participants. Accordingly, modelling can be considered a scientific approach as it entails testing, critical reflection, and further development of knowledge and didaktik models.

3.2 Multivocality

Researchers have asserted that "no theory can actually encompass the teaching situation as a whole" (Arfwedson, 1998, p. 131). The term *multivocal* refers to multiple voices in many parts, which can be translated into multiple perspectives and a variety of approaches and interpretations. The Norwegian linguist Dysthe (1993) launched "the multivocal classroom", largely inspired by the Russian philosopher and literary theorist Bakhtin and his colleagues, in which sociolinguistic and sociocultural premises were prominent. The work on the multivocal concept were a strong reaction against the authoritarian and univocal [enstämmiga] Russian society in which they lived. Central to this themed issue is that multivocality rests on democratic values (cf. Liberg, 2003). Multivocal teaching is inspired by the concept of "the multivocal classroom" (Dysthe, 1993), although it is not placed in a school classroom, and it involves a more expansive approach intended to encompass several scientific grounds. The point of this expansive approach is, in addition to democratic values, to strive to create the conditions to meet and co-act in a finely tuned way in the complex teaching realities in preschool.

3.3 Teaching realities and multivocality

This section describes the multivocal approach based on a didaktik model with three levels: action level, theoretical level, and metatheoretical level (Kansanen, 1993). In this collaborative research, the *action level* can refer to traces of co-planning, teaching, and co-evaluation with connection to and critical reflection of policy documents, such as the national curriculum of preschool (SKOLFS 2018:50). *Theoretical level* can refer to traces when the participants in the collaborative research scientifically relate their teaching practices to theoretical inputs and concepts. This was done, for example, through didaktik, variation-theoretical, post-structural, and pragmatic informed arrangements (see the section "Theory-informed teaching arrangements"). *Metatheoretical level* can refer to traces of participants orienting themselves in and placing the theoretical inputs on a metatheoretical level concerning ontology and epistemology (see also Vallberg Roth et al., 2021).

In Fundif and Undif, the material included traces of phenomenology, post-constructionism and realism (Vallberg Roth, 2020; Vallberg Roth et al., 2021). These metatheoretical and theoretical foundations were touched upon by participants in questionnaires that were answered at the start and end of the R&D programs (ibid). When the didaktik are based on multivocality at both the action level and the (meta) theoretical level, the motivations and actions can become more fine-tuned to different conditions and content, such as art/music, natural science, technology, literacy, movement, mathematics, and sustainability. It is also possible to become open to transdisciplinary and unknown content combinations moving beyond established content in preschool (ibid).

Teaching can exist *in* several areas of reality, including social, psychological, biological, chemical, and physical. However, didaktik cannot be reduced to theories in relation to these areas of reality, for example only be related to psychological, or physical, or sociological theories. The gaze and acts will then be guided by theories, concepts, and models in relation to areas of reality that are unable to capture the complexity and specialty within the *teaching realities*. For example, teaching is not just about existing *in* a social or physical reality. It is also an act of teaching *about* these areas of reality and creating attention and conditions for actions and meaning-making about these social processes and physical phenomena. In these complex teaching realities, we can try a multivocal rather than a univocal [enstämmig] approach, to not reduce but instead to nuance and create conditions for experience and knowledge formation in and with the world, and about these complex realities (Vallberg Roth et al., 2021). Overall, multivocal didaktik modelling try to correspond to this complexity and refers to multivocality at both the action level, and the theoretical and meta-theoretical level. However, in this themed issue we mainly focus on the action level and the theoretical level.

3.4 Theory-informed teaching arrangements

The articles in the themed issue present the results of trying out theory-informed teaching arrangements in which didaktik are combined with different content and teaching foci. The first article summarises the results, methods, and analysis of four theory-informed teaching arrangements in preschools through the concept of multivocal didaktik modelling. The second article describes digitalised music teaching in preschools based on didaktikal informed arrangements. The third article also focuses on didaktikal informed arrangements, but with focus

on movement. The fourth article focus on didaktik attention in the variation-theory and didaktikal informed teaching arrangements, with examples of mathematical aspects for programming in preschools. The fifth article addresses teaching from the standpoint of a post-structural and didaktikal informed arrangement with a focus on projects and themes. Finally, the sixth article focuses on education from the standpoint of a pragmatical informed teaching arrangement regarding sustainability issues in preschools.

We consider "theory-informed" teaching arrangement a more suitable expression than, for example, "theory-based" teaching arrangement. This is because we wanted to further develop knowledge that did not solely have the intention of being governed by and based in theory, but which was open to the judgment and proven experience of professionals to serve as an important foundation. For example, scientific grounds might challenge proven experience and proven experience might challenge scientific grounds (cf. Vallberg Roth et al., 2019).

All the theoretical gateways and theory-informed arrangements have the potential to change practices, although practices and proven experience can also challenge the models and arrangements. Ingerman and Wickman (2015) refer to this interplay between theory and practice as "didaktik modelling". The collaborative research, which took place between 2018 and 2021, explores and makes explicit the processes involved in didaktik modelling. Didaktik models are interwoven in all arrangements – didaktik, variation theory, and post-structural and pragmatic theory-informed teaching arrangements, which were tried out between 2018 and 2020. New (integrative) models have been formulated as a result of the collaborative research and already existing models have been exemplified, mangled and modified (see articles in the themed issue and Vallberg Roth et al., 2021).

4. Finally

With regard to conceptual replication of the research portion of Undif, Fundif took a slightly different angle on teaching through the addition of content-related traces with a focus on mathematics/programming; science/chemistry; music/digital technology; and movement, health, and sustainable development. In general, conceptual replication and repeated testing of theory-informed teaching arrangements and analysis in two R&D programmes, such as Undif and Fundif,

produce strong reliability, generalisability, and usability. In Fundif, reliability, generalisability, and usability are considered to be high based on repeated testing with variations and because, overall, the collaborative research was carried out in 18 municipalities/school authorities, 8 of which were in Fundif, and in approximately 175 preschools/departments, 45 of which were in Fundif.

Theory-informed teaching arrangements were tested repeatedly and appear to be viable in preschools. They have enabled varied didaktik modelling in relation to different knowledge and values, and they have allowed for planned and spontaneous teaching in relation to unique children and groups of children. The teaching has resulted in multivocal traces at the action level and at the (meta)-theoretical level. Didaktik models have been extracted, further developed, tested, and considered in practical and theoretical collaborations (see articles in this themed issue).

Overall, didaktik models may say something about what has been, what is, and what may be possible in the future. The didaktik models that we cite are not intended to provide specific and precise instructions for how teaching should be carried out in each individual case. Rather, they could be viewed as open and possible models that may provide support for teachers to consider and base informed decisions on as well as to motivate their didaktik choices,

Based on the multivocal approach we conclude with voices from the participants:

> By trying out different theory-informed teaching arrangements, our theoretical platform has been expanded. This increases the preschool teachers' opportunity to make teaching accessible to all children, based on different theoretical foundations and conscious didaktik choices. (Ifous, 2019: 1, p. 22)

> I think that Fundif has helped us to find a common language and that we then have the opportunity to meet in dialogue and challenge each other on an in-depth way. Exciting to try many different theoretical perspectives and get some in-depth study, which leads to increased curiosity. Conscious multivocal teaching, I believe, can give children more equal opportunities in preschool and life. (Vallberg Roth et al., 2021, p. 171).

We have tried out multivocal didaktik modelling as a tool for critical reflection that may include the perspectives (versions) of various actors, diverse scientific grounds, and proven experience (cf. Vallberg Roth & Holmberg, 2019; Vallberg Roth et al., 2019; Vallberg Roth et al., 2021).

In this we believe that multivocality and variation in different alternatives for teaching are more beneficial for democracy and sustainability than exclusively univocal [enstämmiga] choices (cf. Liberg, 2003). The point is to strive to create the conditions to meet different issues and content, and co-act in a more finely tuned way in the complex teaching realities in preschool.

The overarching contribution of knowledge is the concept of multivocal didaktik modelling. Ideas as well as models emerging from this concept are practically and theoretically based and have arisen in collaboration with the participants. Overall indications of a contribution to knowledge development involve theory-informed practical development and practice-based theoretical and conceptual development. However, the concept of multivocal didaktik modelling can be further elucidated in future studies.

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