Teaching in inclusive setting: towards collaborative scaffolding

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Summary: This study illustrates how teachers conceptualize learning and responding to students’ diversity in inclusive educational practices. The sociocultural framework and the concept of scaffolding allow us to gain better understanding of the dynamic learning processes as well as the ethical and collaborative dimensions of teachers’ competencies needed to promote inclusive practices. The data consist of 46 interviews with pre-primary, primary, and lower-secondary school teachers. The results represent three distinct conceptualizations for scaffolding: monitoring achievement, guiding students in challenging inquiries, and enhancing social dynamics of learning. Based on our findings, we suggest a model for collaborative scaffolding in the context of diverse classroom settings. The model consists of six features: autonomy, activation, sensitivity, assistance, awareness, and trust. Furthermore, the model for scaffolding in diverse classrooms may have important implications for understanding and promoting inclusive educational practices.

Keywords: Collaborative scaffolding - Inclusive education - learning.

Enseigner dans un cadre inclusif : collaborer pour étayer


Inclusive education has recently been understood more broadly than what its initial focus on how to provide proper education for students with disabilities in mainstream schools suggests. The contemporary definition refers to a holistic educational reform which supports and welcomes diversity amongst all learners;

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for instance, who come from multicultural and multi-diverse backgrounds or who are at risk of not achieving up to their potential (Forlin, 2010; Winter, 2006). As such, the idea of inclusion starts from the belief that education is a basic human right and the foundation for societal equality.

Since the Salamanca Statement (Unesco, 1994) there has been an agreement at the global level on the key principles of inclusive education systems. The current education policy in Finland has reinforced the inclusive reform of basic education by rebuilding a support system (Special education strategy, 2007). Therefore, the Basic Education Act (2010/642) and the National Core Curriculum (2010) have been updated in line with declarations at the global level (e.g. Unesco, 1994, 2009). The new legislation has abolished the requirement of labeling and diagnosing students before they are entitled to receive teaching, accommodations, and support most appropriate for their abilities. Indeed, the updated legislation pays increasing attention to diversity by rebuilding the instructional step-up support system in order to enhance learning and prevent educational exclusion (cf. Koivula et al., 2011; Special education strategy, 2007; Mäkinen et al., 2010). The support is now divided into three parts: common, intensified, and special support. Teachers are viewed as having the most direct impact on the day-to-day educational experiences of students (Unesco/Unifec, 2007). Therefore, teachers’ main task is to discover how to help students in the best possible way when taking into consideration all of their qualities. Thus, it has become important to understand teachers’ own conceptualizations of how to improve learning and how to respond to students’ diversity in inclusive practices. Our main objective is to shed light on this relatively unexplored topic by following phenomenographical analysis when describing teachers’ conceptualizations of how to foster learning (i.e. scaffolding) in diverse classroom settings.

**TEACHING VIEWED FROM A SOCIOCULTURAL PERSPECTIVE**

While the movement towards establishing more inclusive settings in education has been on a fairly distinctive trajectory, implications for the everyday practices of teaching have remained unclear. Because of the current changes related to inclusive setting and students diversity discussed above, teaching can no longer be understood in terms of traditional or even individualistic approach. The following excerpt from a Finnish novelist (Hyry, 1965) reflects a so-called homogeneous teaching strategy in transferring literacy to a dyslexic student while ignoring the student’s individual thoughts, needs, and emotions:

When Hannu was reading, he spelled so slowly that he only got to the fourth word, and his teacher dictate him with almost all of the letters, except with A and I (Hyry, 1965).

Zapata (1988) has argued that teachers tend to base their instructional choices on strategies of learning which have been successful for themselves rather than on a broader understanding of how an individual student learns. Hence, teachers’ practical knowledge today is challenged by their own experiences of typical cultures of teaching and learning decades ago.
In fact, enhancing multi-diverse students’ learning is a demanding task. Forlin (2010) argues that especially in many western countries individualistic expectations have turned teaching into a very challenging task and that the teaching profession is in despair when faced with students who are disenfranchised with schooling, sabotage lessons, and render teachers’ lives extremely unpleasant (Rose & Jones, 2007). Therefore, teaching has become increasingly complex and multilayered (cf. Clandinin & Connelly, 1996) and many barriers need to be overcome while preparing teachers for inclusive educational practices.

In this new context, the focus of teaching in inclusive settings can no longer be on teaching but specifically on learning. Hatch (2010) states that learning provides a significant framework for all kinds of classroom practices, not just teaching. In addition, inclusive educational practices are becoming especially significant, because learning takes place in a variety of cultural and social contexts (cf. Rogoff, 1990). In this study, we view, similarly to Vygotsky (1962, 1978, 1987), learning as an inherently social activity. As learning is closely connected to social relations present in classrooms, both success and failure can be seen as socially organized activities. Moreover, the Vygotskian approach is useful when considering how teachers should prepare for contemporary inclusive settings. In what follows, we suggest ways in which the concept of scaffolding can be used to enhance teaching.

**Scaffolding as a Framework for Teaching in Inclusive Settings**

Scaffolding has been described as having the capability to describe varied means of assistance in adult-child interactions and in learning processes from other-regulation to self-regulation (Rogoff & Gardner, 1984). The concept of scaffolding is not commonly known among teachers, even though the idea is far from new. Many studies have, however, used the framework of scaffolding to develop concepts such as contingent teaching (Wood, Wood, & Middleton, 1978; van de Pol, Volman & Beishuizen, 2011), assisted performance (Tharp & Gallimore, 1988), cognitive apprenticeship (Rogoff, 1990), guided inquiry (Palicsar, 1998), joint problem-solving (Butler, 1998), flying buttress (Donahue & Lopez-Reuna, 1998), and responsive teaching (Gaskins et al., 1993). Together these concepts raise a consensus on two key perspectives on classroom practices, which are especially important for inclusive settings: all students should engage in active and continual meaning-making and learning should be guided by ongoing interactions with significant others.

By utilizing Vygotsky’s framework, Wood et al. (1976) introduced scaffolding as a set of supportive strategies when guiding children solving cognitive problems. Vygotsky stated that appropriate guidance is a prerequisite for learning by arguing that “we assist each child through demonstration, leading questions and by introducing the initial elements of the task’s solution” (Vygotsky, 1978, 209). Moreover, the Zone of Proximal Development (ZPD) brings forth the idea that through assistance, educators can expose children to experiences within their zones of proximal development and in this way advance their individual learning (Cazden, 1979). Moreover, Tharp and Gallimore (1988) have argued that while scaffolding is a natural way for adults to interact with children in everyday life, it is less common in schooling contexts. This
implies that within classrooms it is difficult to provide such assistance that challenges but won’t disrupt learning processes. While Vygotsky’s (1978) sociocultural theory has thrived since its early days, the concept of scaffolding is commonly understood as ‘ability training’. Belland et al. (2008), for instance, argue that scaffolding needs to correspond with students’ abilities and it needs to be implemented in motivating ways. In connection to this, Pol et al. (2011) define three distinct features of scaffolding in the teacher-student interaction. First, contingency refers to pedagogical strategies where a teacher may utilize several tools such as diagnostic strategies and interventions depending on students’ actions. Second, fading can be defined as a process where a teacher supports the student in achieving his or her goal and then gradually dismantles the support so that the student is able to achieve independently (cf. Bunch, 2009). Third, transfer of responsibility refers to the shift by which a teacher moves the responsibility to the student. Hence, the most dominant interpretations of scaffolding reflect a cognitive orientation to learning, which in recent decades has prevailed both in general and special education. For example Butler (1998) argues that cognitive-oriented scaffolding represents students’ knowledge as merely a mirror of adult’s knowledge. Thus, students’ insights and novel ways of constructing action are to great extent ignored. Similarly, the focus on special education has been on individual deficits and how these problems can be overcome (Rueda & Genzuk, 2007; Trent, Artiles & Engler, 1998). In many cases scaffolding has been stripped of its sociocultural basis and for that reason, Palincsar (1986, 1998) and Stone (1998) have argued for enriching and extending applications of the scaffolding metaphor. Most importantly, the ways in which scaffolding is performed in heterogeneous classrooms and how the supportive strategies are used for teaching diverse students have not been systematically analyzed. Furthermore, Gudzial et al. (1995) have pointed out that scaffolding is not significant only for cognitive problem-solving but also for collaboration. In the context of problem-solving, scaffolding focuses on individual’s knowledge construction. However, in collaboration, scaffolding is connected to the social aspects of learning. Similarly, Rosiek (2003) has emphasized the impact of emotional scaffolding by claiming that teachers’ work includes anticipation of students’ emotional response to specific topics and tasks. In fact, already in the early 1900’s, Dewey (1931/1988, 189) stated: “There is no education when ideas and knowledge are not translated into emotions, interest, and volition.”

FOCUS OF THE STUDY

The aim of this study is to describe how teachers interpret and recount their experiences on enhancing learning in inclusive classrooms. Thus, by examining teachers’ experiences and understandings we can depict the different nuances of scaffolding. To that end, our intention is to bring to the fore a variety of the conceptualizations of scaffolding and ways to respond to students’ diverse needs in inclusive educational practices.

RESEARCH METHODOLOGY

This research utilizes phenomenographic approach, which explores the variation in how people describe their experiences concerning a particular phenomenon (Marton
& Booth, 1997; Åkerlind, 2005). In fact, Clandinin and Connelly (1996, 2000) point out that teachers tend to understand their practices through personal biographies, which are shaped by different discourse communities in which they work. The aim of our analysis was to construct qualitatively different categories of teachers’ conceptualisations of scaffolding. These categories and their relation to one another was the basis for a framework for understanding successful scaffolding in inclusive practices.

Our data consists of 46 semi-structured interviews with Finnish teachers who work in inclusive settings in basic education. The interviews were conducted during autumn 2008 and spring 2009. More specifically, we analysed 15 interviews with pre-primary teachers (P-PRIM), 14 interviews with primary teachers (PRIM), 9 interviews with lower-secondary teachers (SEC), and 8 interviews with specialized teachers (SPEC). Most of the interviewees had been teaching for at least ten years. The interviews focused on everyday classroom practices in relation to two general themes, which are explained in detail below. Moreover, during the interviews, interviewees were probed with questions that encouraged them to consider the variety of viewpoints that the themes raised (cf. Ashworth & Lucas, 2000).

The first theme of the interview focused on teachers’ experiences of scaffolding learning processes in their classroom practices. Teachers were asked questions about how they perceived and valued learning, classroom interaction, and diverse students’ participation in classroom activities. In addition, the teachers were asked to describe their views on and means of assisting the learning of atypical students. The second theme focused on the principles and contexts of scaffolding, strategies of assisting, and implementations within everyday classroom practices. Moreover, teachers were asked to describe their successful and unsuccessful teaching experiences.

The analysis consisted of four stages: close reading, organizing the data, categorizing, and summarizing the findings. In the close reading, we examined the transcripts through an iterative reading process. In the organizing stage, the content of the interviews were compared with each other. Moreover, at this stage we constructed preliminary categories. The basic unit of organizing was either a longer segment, for example a complete thought, or a shorter segment, such as a notional statement. Thus, one sentence could contain more than one conception and one conception could be part of more than one interview theme.

In the categorizing stage, the statements were separated from the scaffolding contexts (pre-primary, primary, lower-secondary school) and the conceptualizations were interpreted as the interviewees’ subjective expressions. The descriptive categories were formed in accordance with the teachers’ descriptions of their experiences on students’ needs, understandings of scaffolding, and descriptions of implementations. The categories were revised until there was a stable outcome space.

In the summarizing stage, we found that the three main categories clearly described the collective basis of the scaffolding conceptualizations. The categories differed in content, structure, and scope. At the same time, we want to note that there were no rigid and well-defined boundaries between the categories. Furthermore, our aim was to ensure that we would not impose our own expectations of the teachers’ experiences (cf. Ashworth & Lucas, 2000). In what follows, we present our findings on teachers’ conceptualizations of scaffolding in inclusive education.
SCAFFOLDING AND RESPONDING TO STUDENT DIVERSITY

By conceptualizations of scaffolding we refer to both what teachers perceive to be scaffolding and what are their understandings and experiences of implementing it. Contrary to our expectations, teachers’ conceptualizations of scaffolding did not vary according to different school contexts (i.e. pre-primary, primary or lower-secondary), type of classes (i.e. mainstream or special needs) or teachers’ professional position (i.e. class, subject matter or specialized teacher). This may be a consequence of the fact that all teachers shared, at least rhetorically, some of the views present in the guidelines of the previous National Core Curriculum (2004). Thus, teachers’ approaches to learning were quite cognitive constructivist and they had the tendency to assign agency and responsibility to the students themselves with regard to their learning processes. Moreover, teachers had a wide knowledge of the typical diagnoses and symptoms behind learning deficits. However, there was variation in teachers’ conceptualizations of how to approach learning, attitudes with regard to scaffolding students from diverse backgrounds, and their roles when scaffolding struggling learners. The main categories of scaffolding orientation are depicted in Figure 1. The figure is formed by the intersection of two axes. The vertical axis represents the attitude and approach to scaffolding. The horizontal axis represents a continuum of scaffolding orientation from teaching centered to learning centered.

In what follows, all the categories are discussed in detail in relation to how scaffolding can promote inclusive practices. We provide quotes that substantiate our findings from the interviews with the following codes for context and professional position, i.e. preprimary/class (P-PRIM), primary/class (PRIM), secondary/subject matter class (SEC), special education/specialized (SPEC), and gender (M/F).
Monitoring achievement

In this category, scaffolding was defined as a way to monitor students’ overall achievement. Teachers’ approach to learning stressed the construction of content knowledge, learning outcomes, and students’ responses to directions. To great extent, students’ diverse needs were neglected. Instead, the view of scaffolding tended to be similar to assessment, i.e. a strategy for monitoring whether student completes a task after teacher has given all the relevant facts and knowledge content. In general, teachers expected students to be able to act independently. With regard to students who struggled with learning, teachers characterized students using diagnostic terminology. Moreover, teachers recalled and listed symptoms for diagnosed disorders:

They have reading and writing disabilities, ADHD, Tourette’s, difficulties in rapid naming, attention deficit disorders, behavioural difficulties, speech disabilities, depression, language disorders (SEC-F).

In this way, teachers used labels and diagnoses for reifying and simplifying learning disabilities. Moreover, the previous quote reflects a traditional view of special education where assistance is being offered on the basis of different diagnoses. In Finland, the previous legislation (1998/628) stated that students diagnosed with specific disabilities were entitled to services. Hence, it is not surprising that teachers did not feel they could contribute to overcoming or even facilitating struggling learners. The teachers said they would be happy to direct students with learning difficulties to specialists who could provide appropriate support and accommodations. This type of approach can be explained by a tendency to view diagnoses as primary determinants of learning and educational measurements. Consequently, these teachers concluded that some students did not have the capability to reach certain academic achievements.

The challenge is to get the children with special needs to work independently, on their own initiative. If I go and help other students, the “SEN child” will start doing something else (…) those children are hard to face. Even if I talk to them and look them directly in the eyes, I can’t be sure whether they have understood me or not. (PRIM-M.)

This quote reflects a pessimistic, status quo view where teaching strategies do not allow for variability and are defined in terms of giving directions (cf. Singer, 2008; Forlin, 2010). This type of approach is similar to Heshusius’s (1996) and Jordan’s (1997) findings where teachers perceived students with special needs as defective and passive. In this study, the teachers did not acknowledge that there were important variations in behaviors and learning disabilities of different individuals. Moreover, they were not able to reflect critically on the medical diagnoses or the cultural and institutional contexts.

In the context of assisting learning through social interaction, questioning, and other linguistic means, the teachers did not discuss any techniques that might enhance successful and productive pedagogical interaction. Similarly, with regard to teachers’
views on leading questions, the interviewed teachers saw questions as a way for the teacher to check whether the knowledge content had been acquired and whether they could move on to the next topic.

The problem with questions is that you sort of prepare a new topic with questions, that you ask children questions about things they can’t have enough information about. (…) My personal opinion is that it’s the teacher’s task to teach. (SEC-M.)

This kind of bypassing or pseudo-interaction diminishes the quality of teaching and neglects the most crucial element of scaffolding: intentional, sensitive and responsible teaching with accurate feedback (cf. Butler, 1998; Shindler 2010; Stone, 1998). Consequently, this might prevent students from becoming self-responsible and hinder social belonging among students.

To sum up, some teachers refused to adopt the inclusive ideology introduced by the new Basic Education Act (2010/642). Furthermore, the teaching strategies and techniques of these teachers cannot be characterized in terms of scaffolding where the focus of teaching is on learning, sensitive engagement, shared understandings, contingency, graduated assistance, and transfer of responsibility, as Pol et al. (2011) and Vacca (2008) emphasize. In the framework of scaffolding, these teachers stressed that the aim is to keep students focused on the task at hand, maintain order in classrooms, and make sure time is not being wasted on social interaction or other social activities. One could ask how this type of approach might affect teacher’s professional commitment. Finally, the teachers preferred that students with special needs were taught by experts in smaller units within the mainstream schools. The rationale behind was that the traditional system provided specialist knowledge and support to students whose needs cannot be met in mainstream classrooms.

**Leading the way into challenging inquiries**

The defining feature of this category was the conceptualization of scaffolding as an instructional strategy where teachers could lead students towards challenging inquiries based on their constantly evolving intellectual potential. This approach to learning had an individual-cognitive basis, but it also reflected some notions of Vygotsky’s zone of proximal development. The attitudes towards scaffolding students with diverse needs were optimistic and dynamic. Students were mainly seen as children, not atypical students. The teachers believed they could have a positive effect on learning as described in the following quote:

Learning disabilities can be devastating for children, and in my opinion, an early treatment can help children in learning. It is important to know the specific difficulties in order to give the right kind of support. Highly specific problems are hard to recognize, and if they are diagnosed too late, child’s self-esteem has already been affected. (P-PRIM-F)
Teachers’ perceptions in this category reflected that by identifying students’ needs and by giving support they could contribute to learning. Similarly, Chak (2001), Rueda and Genzuk (2007) argue that through right kind of direction teachers can have an effect on students’ positive self-image as learners. Consequently, to assist students these teachers did not draw only upon diagnostic labels but also upon behavioural traits, cultural background and environment, and previous experience with special accommodations. Some teachers even thought that all students have special needs, as described in the quote below:

One student needs continuous guidance and flexible, calibrated support because of a disorder, two children need more challenging tasks and compelling inquiries because they are ahead of the other children (SPEC-F).

In teachers’ opinion, all students benefit from support that is focused on cognitively based self-regulatory strategies. Teachers presented several means for scaffolding students, e.g. modelling, questioning, and demonstrating. They conceptualized scaffolding in connection with the viewpoints of learning-oriented, contextual, and bi-directional learning processes. Thus, they raised the notion of intersubjectivity as a way to become familiar with the students’ worlds. In addition, they considered teacher’s participation and feedback to be important. In these processes, teacher interacts with students and takes the responsibility for their learning.

The most important thing is to throw yourself into what you’re doing in the class [---] to monitor students’ emotional levels, to be playful and use humour, to give positive feedback (PRIM-F).

These ideas are consistent with the finding that students develop their learning strategies on the basis of the feedback they receive (Stone, 2002). The challenge is to create compelling, balanced, cognitively structured, and temporary support processes that allow the responsibility to be transferred from the teacher to the student (cf. Bunch, 2009; Vacca, 2008). One primary school teacher notes that:

Ultimately, learning takes place in the head of the individual but interaction with the peer group is a very important source for motivation and a way to model learning and in my opinion, it further enables students to learn. (PRIM- M.)

These teachers conceptualized scaffolding as a process in which their role was to provide temporary support that will help students in developing new understandings and abilities. Teachers seemed to be primarily equipped to provide cognitive scaffolding to assist students in increasing their self-regulatory strategies so that they would be able to achieve the goal of the task independently.

The teachers understood scaffolding both as a noun and a verb. Consequently, they positioned themselves as cognitive scaffolds, and they were familiar, for instance, with computer-based or other types of training games for enhancing memory,
attention, and reasoning. They saw clear directions, purposes, and expectations as important, because they would keep the students focused in tasks and maximise learning and efficiency. Furthermore, providing stimuli for challenging inquiries and creating a supportive environment for learning were essential for learning.

**Facilitating social dynamics of learning**

In this category, learning was mainly understood as a social activity. In fact, many studies have shown the limitations imposed by a narrow cognitive focus on scaffolding pointing out that the sociocultural theory is useful for understanding scaffolding (cf. Greeno, 1999; Rogoff & Chavajay, 1995; Rosiek, 2003). The interviewed teachers shared these views. By adopting this kind of context-based and socially tailored perspective, scaffolding means that the focus is no longer on the individual student. Thus, the target for scaffolding is rather individuals in interaction with one another in a specific setting. For these teachers scaffolding was seen as guided participation and interaction:

A successful moment is when students are eager to learn new things and feel encouraged to use their new knowledge and abilities (…) when we experience a moment of flow together, when we experience joy and freedom (SPEC-M).

The statement reflects learning as a dynamic process of transformation and participation in a learning community. In fact, Rogoff (1995) has discussed learning in similar terms. The teachers saw respecting students and supporting their personal growth as important, as was noted in the previous quote. Learning was understood as a multilayered process, which was influenced by personal involvement with students’ cognition, behavior, and emotions. Within the classroom community, learning processes were affected by social interaction, assistance, and assessment. According to the sociocultural approach, the personal and social levels are inseparable (Rogoff, 1995; Rosiek, 2003). Teachers also pointed out the significance of respecting students as whole human beings and responding to their emotional, social, cultural, and cognitive needs. Thus, scaffolding was not just a context-based teaching instruction or a gradually faded assisted performance (cf. Thrap & Gallimore, 1988), but rather a way for human mind to function in relation to social practices.

All learning seems to be based on social interaction (…) through social interaction, shared experiences, and negotiation a person can learn how to reflect on and frame his learning processes (…) Every unique individual and student is worth making an effort for and caring about. (PRIM-F)

Teachers said that the quality of feedback has a crucial effect on scaffolding. They underlined the importance of strengthening students’ meta-cognitive skills. As Rogoff (1990) states, educators’ task is to encourage students’ insights, enhance understanding, and foster interpretation through meta-cognition and guided participation. These teachers described the means in which students could promote their own thinking, problem-solving, and achieving a given task. Several teachers
used the expression “verbalise,” by which they referred to teachers’ strategies to assist students in expressing their thoughts verbally. At the same time, they were aware of the clues, messages, and mixed feelings that enhance learning. According to one secondary school teacher:

If everything is upside down, you start to listen to the students and guide them through negotiation, you know, like finding out what they think and feel about this (SEC-F).

These teachers understood that through open and fair interaction they could face the students’ needs and scaffold the learning progress (cf. van Es & Gamoran Sherin, 2002). The teachers’ implications of scaffolding reflected sensitivity, presence, respect, joy, and confidence. In the classroom, they wished to act as facilitators and leaders who are able to create a well-organized social group with correct expectations, rules, and boundaries. They pondered over the emotional foundation of learning and emphasized the importance of a safe learning environment where students’ voices and experiences are expressed and heard. They depicted themselves as seekers of favourable learning paths, as noted in the following quote:

I organise learning sessions so that they vary as much as possible. Students work by themselves and they can reason and solve problems together. When you have thought about the ways of guidance, means of assisting, and learning strategies from the very beginning, you can probably use them in higher grades, too. (PRIM-M.)

Their main goal was to raise students’ intrinsic motivation, sense of personal as well as collective responsibility, and encourage collaboration among students. These teachers’ conceptualizations of scaffolding were characterised by knowledge of learning disorders, collaborative learning strategies, and understanding of sociocultural learning theory. The data also suggests that in relation to their scaffolding practices, their theoretical expertise was bi-directional and interactive. These teachers could also be described as self-reflective. They were aware of their own actions, practices, and ways of thinking. This kind of conceptualization of scaffolding synthesises the aspects of cognitive and sociocultural views that advance learning.

CONCLUSION:
HOW TO IMPLEMENT SCAFFOLDING IN INCLUSIVE PRACTICES?

The present study has revealed the challenges that teachers encounter when they are in the process of implementing scaffolding practices in inclusive settings. Our results show that in order to ensure that teachers have the ability and knowledge to work in heterogeneous and diverse inclusive settings, a paradigm shift in the focus of teaching and meeting student diversity is acutely needed. The paradigm shift suggests at least three prerequisites for developing inclusive school cultures, policies, and practices. First, teachers have to be aware of the systemic factors, i.e. educational policy, resources, support structures. Furthermore,
the international conventions and declarations (e.g. Unesco, 1994, 2009) discussed in the introduction ask for an inclusive viewpoint in which the aim is to place the local pedagogical practices to a larger international framework.

Second, teachers have to be able to address the cultural issues – such as attitudes, values, and beliefs – present in diverse school settings. While many scholars have put emphasis on exploring the belief systems of mainstream teachers (e.g. Cornoldi, et al., 1998; Forlin 2010; Moberg, 2003; Neilson, 2005; Sikes, Lawson & Parker, 2007) and prospective teachers (Mäkinen et al., 2009) in relation to inclusive practices, practical examples are needed for establishing a change in teachers’ attitudes that will improve teaching in inclusive settings. In the 21st century, students increasingly benefit from teachers who are sensitive to diversity brought by about by inclusive practices.

Third, teachers need to be engaged with teaching from a sociocultural viewpoint. Many studies have identified cognitive dimensions present in teaching experiences in heterogeneous classrooms (Darling-Hammond, 1996; Leinhardt, 1990; Shulman, 1987, 2000), but scaffolding has rarely been viewed as a vehicle for implementing collaborative elements to teaching. The current results, however, might give the key for understanding the importance of the paradigm shift discussed above. Following the sociocultural approach, we propose three ways to modify scaffolding in inclusive classrooms.

1. **From direct teaching to facilitating students’ learning processes.** The idea is to shift students’ learning orientations towards self-responsibility. A process-oriented learning environment is engaging and prioritizes students’ own interests and needs.

2. **Community-based activities.** Collaborative scaffolding enables teachers to pay attention to both the individual and the collective aspects of learning processes. A discussion led by the teacher after a student activity can be a powerful method for collaborative scaffolding.

3. **Consciousness, reflection, and intentional set of practices in the teacher profession.** Students’ intrinsic motivation is improved when teachers scaffold students with intentional, reflective, and clarifying questions with regards to the expectations.

In the following, we discuss how collaborative scaffolding can be implemented in inclusive settings using six key attributes, which are presented in Figure 2.

- **Activation** suggests that teachers should intentionally promote a shared understanding of collaboration in classrooms. According to Shindler (2010), collaborative classes work like teams in which students feel like they can achieve their potential only by working with others. Thus, teacher’s ultimate goal is to build a learning environment where students are excited to learn together.

- **Presence** refers to teacher’s ability to act in the moment. Also Tolle (2003) argues that being aware of what is going on in the present moment helps teachers to notice how the used methods and habits of mind can be changed. Moreover, this cultivates a positive attitude and energy flow. The so called “yes” frame of mind allows the teacher to be aware of the social dynamics of learning and the students to engage in the learning community.

- **Sensitivity** refers to teacher’s ability to identify students’ implicit and explicit social cues as well as their cognitive and emotional needs (cf. Rosiek, 2003). Teacher’s
goal is to create a needs-satisfying learning environment. Students should be able to participate in a classroom culture that can be characterized by sense of belonging and respect. Finally, as part of professional growth and collective well-being, the teacher should continuously reflect his or her role as a scaffold.

- **Assistance** means teacher’s contingent (cf. Pol et al., 2011) and contextual support for students who try to make sense of cognitive and emotional chaos related to learning. Students should be encouraged to achieve the joy of success through participation in and contribution to the activities. In some situation, students may initially resist the support given by the teachers. Thus, collaborative scaffolding requires commitment, patience, and most importantly, social interaction.

- **Trust** refers to a classroom environment, which can be characterized by acceptance and active participation. In connection to this, teachers should be consistent in how they implement collegial practices. Moreover, predictability allows the students to feel safe, especially when the described environment is free from bullying, abuse, and put-downs.

- **Autonomy** emphasizes students’ responsibility and intrinsic motivation to learning. It is of great importance that teachers explicitly express expectations so that students can internalize them – both individually and collectively – and then contribute to their best ability. When students experience collective success, their social bonds will strengthen.

![Figure 2. Model for successful collaborative scaffolding in inclusive setting](image_url)

Finally, our intention is not to argue that collaborative scaffolding is the only way to promote inclusive education. However, our study demonstrates that scaffolding is a useful tool for classifying and making sense of the instructional choices in the
classrooms. Furthermore, it provides a framework for developing ideas around inclusive practices.

**DISCUSSION**

Scaffolding metaphor has great potential for advancing educational theory in relation to the nature of learning and teaching. Our findings demonstrate that scaffolding should be seen as a dynamic and collaborative tool for enhancing the learning of diverse students. Many of the interviewed teachers utilized the previously discussed characteristics of collaborative scaffolding. Therefore, they had a self-reflective approach to their work. Furthermore, they endeavoured to strengthen their students’ meta-cognition and perceived teaching comprehensively.

Moreover, many teachers processed problems and aimed for open interaction with students not just as individuals but also collectively. Several of them had acknowledged the pitfalls of diagnostic labelling within inclusive education because often enough, educational diagnoses suffer from constant shifts in their meaning. Furthermore, the labels, then, strengthen simplistic images and distance teachers and students from one another.

This study suggests that future research on scaffolding would benefit from investigating, for example, how students themselves conceptualize scaffolding on the basis of their personal experiences. In addition, the question of how to give more prominence to collegial working strategies in inclusive settings is of great importance. In fact, many teachers have found their way into informal teams, networks, and peer groups where they can explicate their experiences of scaffolding and express ideas that have been learnt together. Collegial teamwork efforts may produce unique solutions for challenges present in the context of scaffolding. Furthermore, collegial communities might play an important role in building a new kind of inclusive school culture.

**References**


MARTON (F.) & BOOTH (S.), Learning and Awareness, Lawrence Erlbaum, New Jersey, 1997.


MÄKINEN (M.), NIKANDER (E.), PANTZAR, (T) & SAARI (A.), Inklusiivinen erilaisuus kasvatuksessa. [Inclusive diversity in education], Tampere: University of Tampere, 2009.


ROGOFF (B.), “Observing sociocultural activity on three planes: Participatory appropriation, guided participation, and apprenticeship” in J.V. WERTSCH, P. DEL


UNESCO/UNICEF (UNITED NATIONS EDUCATIONAL, SCIENTIFIC, CULTURAL ORGANIZATION/UNITED NATIONS CHILDREN’S FUND), A human rights-based approach to education:


