Scaffolding through dialogic teaching in early school classrooms

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HIGHLIGHTS

- Two teacher- and two child-initiated dialogic teaching patterns were identified.
- Teacher-initiated dialogues involved intended scaffolding and clear learning goals.
- In child-initiated dialogues teachers' scaffolding included listening and inquiry.
- Quality of scaffolding was linked with shared content understanding.
- Activeness of scaffolding promoted children's active participation.

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ABSTRACT

The present study examines what types of dialogic teaching patterns can be identified in the early school years, and how teachers scaffold children's participation and shared understanding through dialogic teaching. Thirty recorded lessons from preschool to Grade 2 in Finnish classrooms were analysed using qualitative content analysis. Two teacher-initiated and two child-initiated dialogic teaching patterns were identified. Teacher's scaffolding in teacher-initiated dialogues was characterised by high responsibility in maintaining the interactional flow and utilisation of diverse strategies. In the child-initiated dialogues, the teachers' scaffolding consisted of listening and inquiry, and the teacher thus served more as a facilitator of dialogue.

1. Introduction

The current views of learning emphasise the development of knowledge and understanding through talk and inquiry (Wells, 2007). While the quality of classroom educational dialogue is acknowledged to be critical for fostering deep learning and shared understanding among students of any age, dialogic exchanges take place very infrequently in most classrooms (Howe & Abedin, 2013). In addition, the literature on successful teacher strategies for facilitating dialogic interactions is scant.

Classrooms with high-quality instructional interactions are characterised by high levels of scaffolding and support for learning and thinking on the part of the teacher (Yates & Yates, 1990). The teacher plays a key role both in creating opportunities for students' conceptual development and participation through inquiry, open questions, answers and feedback, and in assisting students in explaining their own thinking, seeking consensus and solving problems together (Gillies, 2013; Gillies, Nichols, Burgh & Haynes, 2012; LaParo, Pianta, & Stuhlman, 2004). In line with Rogoff's conceptualisation (2008), we use the term 'scaffolding' to refer to the practise of providing students with support for meaning-making and independent thinking. In order to become active learners, the teacher needs to support children by fostering classroom dialogue which allows them to build on each other's ideas (Littleton & Mercer, 2010). The teacher's role is, thus, that of a facilitator of guided participation (Rogoff, 1990) where children assume active roles through their participation in meaningful activities assisted or supported by adults.

However, surprisingly little is known about the concrete

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teaching practises that facilitate high-quality classroom dialogue in different age groups, especially among younger children. Empirical studies on the dialogic interactions taking place in the early school years are scant; slightly more information in the literature is available from the secondary school years (e.g., Lehesvuori, Viiri, Rasku-Puttonen, Moate, & Helaakoski, 2013; Littleton & Mercer, 2010). Thus, the present study focuses on preschool and the first two years of primary school to examine what kinds of strategies teachers use when scaffolding children's participation and shared understanding through dialogic teaching.

1.1. Sociocultural approach and scaffolding

Vygotsky's Sociocultural Theory (1978) emphasises the importance of social interactions for development and learning, and the central role of language as both a cultural mediator and a tool for thinking. Vygotsky did not actually use the term 'scaffolding', which is often linked with his concept of the 'zone of proximal development' (ZPD; 1978). According to Vygotsky, it is highly informative to find out not only what students can do on their own, but to discover what they can do with the help of a more knowledgeable partner. Several researchers have used the term 'scaffolding' (first introduced by Wood, Bruner, & Ross, 1976) to describe the process in which a teacher, a coach or a more experienced peer supports a child's learning with an interactional framework. In instructional scaffolding, the teacher may, for instance, guide the student's language learning and construction of the ideas and concepts by leading or asking probing questions that build or elaborate on the knowledge that the learner already possesses (Applebee & Langer, 1983).

In the current research literature, 'scaffolding' has often been used as a synonym for the support provided to learners (Mercer & Littleton, 2007). Van de Pol, Volman, and Beishuizen (2010) suggest that scaffolding consists of three main domains: 1) *contingency*, which includes tailored, responsive and adjusted support; 2) *fading*, which refers to the gradual withdrawal of the support over time and 3) *transfer of responsibility*, meaning that the teacher eventually transfers the responsibility of performing the task to the student. There is widespread agreement on the crucial role of scaffolding in different educational contexts, including in distributed cognition (Cole & Engeström, 1993), various domains of knowledge (e.g., Palinscar & Brown, 1984; Rojas-Drummond, Hernández, Vélez, & Villagrán, 1998) and in both whole classrooms and small-group interactions (Elbers, 1996; Rojas-Drummond & Mercer, 2003).

Since language plays a key role in children's cognitive development, the dialogue between teacher and student can be seen as a form of scaffolding (Sedova, Salamounova, & Svaricek, 2014) and a key part of the process of 'handing over' knowledge and skills (Wolfe & Alexander, 2008). Recent research has highlighted the key role of dialogic interactions between teachers and students in students' learning, development and reasoning (e.g., Littleton & Howe, 2010; Mercer & Littleton, 2007). Teachers can also use dialogue for scaffolding students' peer group interactions and talk (Fernández, Wegerif, Mercer, & Rojas-Drummond, 2001; Howe, 2010). Scaffolding through dialogue allows students to develop ideas they most likely would not have had on their own, while still being able to recognise them as the result of their own thinking (Game & Metcalfe, 2009).

1.2. Dialogic teaching

Various terms have been used to refer to different forms of educational dialogue or teaching, including dialogic teaching (Alexander, 2008), dialogic inquiry (Wells, 1999) and dialogical pedagogy (Skidmore, 2006). Researchers studying classroom talk

are particularly interested in the nature, quality and facilitating structures of productive educational dialogues (Littleton & Howe, 2010). The meanings of the abovementioned terms are considered to be very similar. The present study draws from some of the key principles of dialogic teaching described by Alexander to demarcate the characteristics of classroom interaction.

According to Alexander (2000), dialogic teaching harnesses the power of talk to stimulate and develop students' thinking, learning and understanding. Alexander (2006) defines 'dialogic interactions' as exchanges where students ask questions, explain their points of views and make comments about each other's ideas. The crux of dialogue is to exchange ideas that prompt further questions. Alexander proposed the following five key principles for identifying the features of dialogic teaching: 1) collective (teachers and children address learning tasks together as a small group or as a the whole classroom); 2) reciprocal (teachers and children listen to each other, share ideas and consider alternative viewpoints); 3) supportive (children articulate their ideas freely and without fear of embarrassment and they help each other to reach shared understanding); 4) cumulative (teachers and children build on their own and each other's ideas and link them into coherent lines of thinking and enquiry) and 5) purposeful (teachers plan and steer classroom talk with specific educational goals in mind). He divides these principles into two groups where the first three principles are seen to describe the form of discourse, whereas the last two principles describe the content.

Lefstein (2006) has suggested two more criteria as important features of dialogic teaching: dialogue should also be critical (participants identify and investigate points and explore questions inside the group) and meaningful (teachers and students relate to the topic and bring their own horizons to the discussion). A number of other researchers have also described the indicators of dialogic teaching. According to Reznitskaya, Kuob, Clarkc, and Millerd (2009), teachers should 1) provide their students with a shared responsibility for discussion; 2) ask challenging and open questions and 3) provide feedback that will prompt further exploration. The teacher should also connect the teaching to students' ideas, request explanations for ideas and support collaboration. In addition, dialogic teaching has been linked to the fostering of collaborative interaction through classroom exploratory talk (Mercer & Dawes, 2008), working with mistakes (Myhill & Warren, 2005), nurturing students' questions (Nystrand, Wu, Gamoran, Zeiser, & Long, 2003) and using heteroglossia as a discursive voice (Mesa & Chang, 2010). However, researchers should be critical in their idealistic thinking on the power of dialogue in classrooms. This kind of idealism can promote a situated approach to dialogue, sensitive to the tensions inherent in dialogic interaction and grounded in the realities of the school's context (Lefstein, 2010).

1.3. Scaffolding in dialogic teaching

In order to engage all students in a classroom in exploratory behaviour teachers typically need to provide encouragement by asking the children thought-provoking questions and allowing them to share their knowledge and experiences (King, 2002). According to Chinn, O'Donnell, and Jinks (2000), students participate and engage in high-quality classroom dialogue only if they are specifically asked to give reasons and justifications for their conclusions. Alexander (2000) proposes a definition of scaffolded dialogue, which refers to achieving common understanding through structured and sequenced questioning, and through 'joint activity and shared conceptions'. Alexander's conceptualisation of scaffolding thus involves guiding and prompting students with reduced choices, which expedites the transfer of concepts and principles. This conceptualisation can also be seen as problematic