

Journal of Classroom Interaction

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Negotiating Meaning in Science Classroom Communities: Cases across Age Levels

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Abstract: This article examines the ways in which communal learning activity is constructed in the social interactions of science classrooms across age levels. Methodologically, the paper is concerned with unraveling the complexities and dynamics of social science learning situations and how they give rise to the construction of diverse voices to participate in cultural activities. The case studies discussed are derived from three classroom contexts varying in student age. The classes were taught by the same teacher, whose pedagogy was based upon the sociocultural perspective. In the analysis, the communal activity negotiated in the ongoing interactions of the science classrooms is approached from two analytic dimensions, namely from the viewpoint of discourse moves and from the viewpoint of cultural focus, characterizing the thematic nature of the interaction. Two themes were analyzed across the three age levels. The themes focus on the roles of the participants in the learning community, the nature of tool-mediated activity and the processes of participation in communal activity when negotiating meaning for scientific phenomena.

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Orchestrating Classroom Interaction in a Community of Inquiry: Modes of Teacher Participation

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Abstract: This article investigates the teacher's discursive strategies when orchestrating classroom interaction in a learning community consisting of seventeen, third grade students from a Finnish elementary school. The pedagogical practices of the classroom were shaped by the sociocultural framework with a special emphasis on dialogic and transformative meaning-making in which equal participation is supported by the grounded rules of the community. The empirical data of this case study consists of videotaped instructional sessions gathered from three domains, namely philosophy, science and mathematics sessions. The interactive practices of the classroom learning community were subjected to close micro-level analyses in which attention was paid to the teacher's discursive strategies in the flow of classroom interaction and how these strategies scaffolded community building from the cognitive, social and socio-emotional viewpoint. The interaction analysis revealed four complementary and partially overlapping strategies of scaffolding in the teacher's discourse. These are defined as evocative, facilitative, collective and appreciative strategies. In the paper, the data of the teacher's discursive strategies in classroom interaction will be highlighted by extracts demonstrating their construction in situated classroom practice across domains. The implications of the findings for theory and practice will be discussed.

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Scaffolding: Classroom Teaching Behavior for Use with Young Students with Learning Disabilities

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Abstract: Scaffolding is positioned as a specific form of discourse that refers to the way that learning takes place within sociocultural theory. The concepts regarding sociocultural theory include language, situated meaning, a cultural model including discourse, and activity, and learning. Discourse is part of social interaction, and includes a set of social rules and cognitive levels of understanding. Discourse analysis provides information on how knowledge constructed in classrooms shapes, and is shaped by the discursive activity and social practices of members. Our main question in this paper is how scaffolding leads to learning. We are interested in the way academic knowledge is constructed into being with young children during discourse, and more specifically during scaffolding. Discourse analysis creates the means to answer this question. Therefore we analyse protocols that are collected during experimental studies. These investigations aim at improving social interaction quality in order to increase competent behavior of pupils during tasks. We report about three studies. The first one included two individual pupils aged 5 years and their classroom teacher. Mildly impaired pupils aged 4 to 7 years were 15 subjects in the second study. This study contains results from protocols of small group tasks with the teacher, and protocols of the same pupils without their teacher during the same task. The analyses took place within the framework of MASS (Gee & Green, 1998). The results reveal that the concept of scaffolding holds well considering the framework in which the social interactions must be understood. Without this framework problems arise regarding the interpretation of the patterns in discourse and activity.

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Re-conceptualizing “Scaffolding” and the Zone of Proximal Development in the Context of Symmetrical Collaborative Learning

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Abstract: The linked concepts of ‘scaffolding’ and the Zone of Proximal Development (ZPD) were originally applied to the context of asymmetrical teaching and learning with a teacher or adult explicitly supporting a learner, usually a child, to achieve tasks beyond their ability when working alone. In this paper we investigate how these concepts need to be reconceptualised if they are to be applied to the different context of symmetrical learning amongst groups of peers. We present two separate studies. In the first one we analyse the type of talk used by a group of children from Mexico solving the Raven’s Standard Progressive Matrices (RSPM) test together both before and after an intervention programme teaching ‘exploratory talk’. Our analysis demonstrates a ZPD created by the way in which they talk together. In the second study we present the comparison of the talk of two groups of children, one from Mexico and the other from the UK, solving together a single matrix from the RSPM test. Our analysis shows how the concept of ‘scaffolding’ can be applied to understand how these groups of children use language to support shared thinking and learning. In both studies we found that applying ideas of ‘scaffolding’ and the ZPD to symmetrical learning required the re-conceptualisation of these concepts as characterisations of dynamic processes within dialogues.

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Investigating the Quality of Student Discourse: What Constitutes a Productive Student Discourse?

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Abstract: In this article we present an analytic framework that we used to study the quality of student discourse in collaborative learning tasks that focus on deepening conceptual understanding. We illustrate this framework with an example of two boys who collaborated on a concept mapping task about electricity. Inspired by socio-constructivist and sociocultural perspectives on science learning and instruction we focus on the amount and type of discourse about concepts, the amount and type of elaboration, the amount and type of co-construction and on the use of available tools. We show how these dimensions shape the conditions for deepening students' understanding of concepts.

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Synthesizing Personal, Interactionist and Social Norms Perspectives to Analyze Collaborative Learning in the Classroom in the Context of a Computer-based Innovation Program

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Abstract: This paper illuminates some aspects resisting the development of quality social interaction in pupil collaboration. A study is reported where pupils worked in small groups in computer-based classroom activity within the framework of an innovation program in a primary school. They were engaged in constructing, exploring and experimenting with Logo, enriching the graphical outcomes with freestyle artwork and writing about their experiences. They were engaged in constructing, exploring and experimenting by programming with Logo, enriching the graphical outcomes with freestyle artwork and writing about their experiences. A combined ethnographic and discourse analytic model is used to describe group dynamics in two groups of pupils (aged 8-11) involved in tasks of exploratory learning. We analyzed the data taking three distinct perspectives, a personal or insider's perspective, an interactionist perspective and a social norms perspective. The former revealed the pupil to be a person who seemed to perceive the society within which he/she was called upon to act, as a forum in which to claim and defend his/her social role. The interactionist perspective brought forward the issue of role negotiation and its overbearing presence in social exchange in the form of groupthink, role confusion and vagueness. Finally, the group and classroom social norms, which seemed to have emerged as functional within these societies, had a judgmental character.

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Negotiating Meaning in a Community of Learners: Discussion

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Abstract: The articles presented in this theme issue all share a common interest in transforming institutionalized education into communities of practice, in which learning is viewed as a process of negotiating meaning with others. In regarding learning as a fundamentally social phenomenon, the articles aim at developing, supporting and monitoring such learning in classroom contexts.

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