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SUBJECT-SPECIFIC LEARNING AND INTERACTION IN ELEMENTARY SCHOOL – A RESEARCH PROGRAM

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Abstract (300 words)

The paper presents the research program of the research training group “Subject-Specific Learning and Interaction in Elementary School”. The research training group combines perspectives on teaching and learning from three different domains: Educational Science, German Studies Education, and Mathematics Education. By linking these different traditions of classroom research, which has not been implemented in this form until now, the program bridges a gap and contributes to improving research focusing on classroom interaction issues and the teaching and learning quality at the same time. The program includes qualitative case studies based on classroom video observations and a standardized video study. One of the starting points of the research program is the empirical evidence for a certain tension between the classroom interaction routines and challenging subject-related tasks. In the paper, we present an empirical example of this tension.

Extended summary (1000 words, excluding reference list) Include introduction, theoretical background, methods, aims, preliminary findings/findings, results, theoretical and education significance, relevance to the QUINT ambition and the reference list.

Our paper presents the research program, theoretical grounds, and methodology of a Research Training Group which has recently been granted by the German Research Foundation (DFG) and is now starting with 12 PhD students and two postdoctoral researchers at the Universities of Halle and Kassel (Germany). The Research Training Group aims at describing and analyzing classroom interaction in elementary school with a specific focus on subject-related teaching and learning processes. The PhD program combines perspectives on teaching and learning from three different domains: Educational Science, German Studies Education, and Mathematics Education. By linking these different traditions of classroom research, which has not been implemented in this form until now, the program bridges a gap and contributes to improving research focusing on classroom education.

Against the background of different research traditions and perspectives, the Research Training Group is, *first*, interested in the *empirically observable tension* between the interaction order necessary for the accomplishment of teaching practice and demanding subject-related tasks that potentially challenge an established order. Although the classroom interaction order is aligned with the organizational purpose of enabling (subject-related) learning, it also seems to operate independently and even potentially in tension with this: “it has a life on its own and makes demands on its own behalf” (Vanderstraeten 2001, p. 273). This tension is also noticeable if we look at teaching and learning practices from different research traditions and perspectives. Looking at a classroom from the perspective of Educational Science research, a particular lesson may be judged to be common and efficient. In contrast, the same lesson might appear profoundly deficient and inefficient from a didactical, content-based point of view (Breidenstein & Tyagunova 2020). Findings from the research on classroom management show that demanding and challenging tasks also pose greater difficulties

for classroom management: “In response to these threats to order, teachers often simplify task demands or lower the risk for mistakes” (Doyle 2006, p. 111). In our paper, we will present and discuss a concrete empirical example of this tension.

Second, the Research Training Group PhD projects will analyze the teaching practices of German and math lessons in elementary school and establish a basis for *comparative subject-related didactical classroom research*. The aim is to identify specific and general conditions and qualities of subject-related learning in the observation of classroom interaction. With the specific focus on the interactive constitution of knowledge, this approach aims to examine how the organizational framework of teaching influences learning in language and mathematics.

Common theoretical grounds for the PhD projects are to be found in the “theory of social practices” (Schatzki 1996). Practice theories conceptualize social practices as an object study in its own right and draw attention to the inherent logic, the own dynamics, and stability of social practices. From this praxeological perspective, teaching and learning are conceived as a nexus of social practices. With the “practice turn” (Schatzki et al. 2001), the social and material dimensions of education also come more clearly into focus. Practices of classroom management and practices of learning operate in different logics and may be in tension with each other. The focus of our research lies on identifying the specific logics and alignments of practices that take place simultaneously in the classroom and may ‘interfere’ in various ways (Breidenstein 2021). Adapting this theoretical perspective to the study of classroom interaction and didactics, we developed a model that praxeologically shifts the traditional didactical triangle primarily focusing on teacher, students, and subject of instruction. We will explain this praxeological shift in more detail in our paper.

The Research Training group will conduct a series of qualitative case studies based on video observations and will also conduct a standardized video study comparing teaching and learning practices in German and mathematics lessons in the same classrooms. The quality of teaching should be observed and determined in the interaction practice itself: What indicators of processes of understanding or comprehension can be identified? Which modes of dealing with the subject matter can be distinguished in the observed classroom interaction?

With our aim of identifying teaching quality not by measuring the “outcome” of lessons but within the characteristics of classroom interaction itself, we see similarities to the aims of QUINT. Similar to QUINT, we see video-based analysis of classroom interaction as the main pathway to examine the quality of teaching and we hope to start a dialogue, especially on theoretical and methodological issues.

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