Effective classroom management and the development of subject-related interest

Mareike Kunter [a,*], Jürgen Baumert [a], Olaf Köller [b]

[a] *Center for Educational Research, Max Planck Institute for Human Development, Lentzeallee 94, 14195 Berlin, Germany*
[b] *Humboldt University, Berlin, Germany*

Abstract

This article examines the effect of classroom management strategies on students' interest development in secondary school mathematics classes. Two studies using student questionnaire data (one cross-sectional, with data from 400 students; the other longitudinal, with 1900 students) are reported. Results show that students' perceptions of rule clarity and teacher monitoring are positively related to their interest. Hierarchical linear modeling was used to examine the effect of classroom management on interest development over one school year, revealing that only individually perceived classroom management strategies and none of the class-level teaching characteristics (aggregated student data) affected interest development.
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In classroom research, effective classroom management strategies have long been considered crucial for students' achievement gains (Walberg & Paik, 2000). Classroom management is generally conceived to entail all actions taken by the teacher to ensure order and effective time use during lessons (Doyle, 1986). One aspect that has received little attention to date is the impact of classroom management strategies on students' motivation. In this regard, it is sometimes argued that learning environments characterized by a high degree of classroom management may have negative effects, particularly where educational objectives other than academic achievement are concerned (McCaslin & Good, 1992). Empirical evidence supporting this argument is scarce, however. In this article, we argue that, from perspective of self-determination theory, pre-structured and well-organized learning environments may actually support students' interest in the subject taught by fostering the experience of autonomy and competence in class. We carried out two studies to examine the relations between rule clarity and teacher monitoring in mathematics classes, students' experience of need satisfaction, and their math-related interest.

The following section introduces effective classroom management as an essential aspect of instructional quality. We then turn to students' interest as an important educational outcome. Drawing on findings that stress the importance of self-determination in learning processes, we discuss how effective classroom management may influence students' interest. As we point out in the subsequent section, students' personal experiences within the learning environment may play a major role in determining whether teachers' classroom management behaviour has positive or negative effects on student interest.

* Corresponding author. Tel.: +49 30 82406 246.
 E-mail address: kunter@mpib-berlin.mpg.de (M. Kunter).

1. Effective classroom management and students' learning

Research on effective teaching shows clearly that the actual time students spend learning and working on meaningful tasks is one of the key predictors of their learning gains (Walberg & Paik, 2000). Trivial as this may sound, in regular classrooms, lesson time is not always allocated solely to learning activities. Frequently, the available time is also spent on other, non-curricular activities, on organizational matters, or on dealing with disciplinary problems and other interruptions. Consequently, teaching strategies which organize the classroom in such a way that the available time is used efficiently, and which thus maximize students' opportunities to learn, have long been considered the best way to support students' achievement gains (Brophy, 1999b; Wang, Haertel, & Walberg, 1993). These strategies are usually referred to as "effective classroom management" (Brophy, 1999a; Doyle, 1986). Studies examining the elements of effective classroom management have identified two key features that are essential for establishing and maintaining order in the classroom: the identification of desirable behaviours and the prevention of undesirable ones (Emmer & Stough, 2001). In order to identify desirable behaviours, *clear rules* and regulations as well as stable routines need to be communicated, established and maintained. To prevent the occurrence of disciplinary problems and other potential times losses, teachers need to be alert to everything that is happening in the classroom ("withitness"; Kounin, 1970) and — in case of rule violations or other distractions — to intervene promptly. This *constant supervision* covers students' overt classroom behaviour (disruptions and off-task behaviour) as well as their on-task learning activities. Effective classroom managers thus provide for a smooth flow of classroom activities and ensure that their students are actively engaged in learning (Brophy, 1999a). It is now firmly established that the implementation of these strategies has broad positive effects on the achievement gains of various groups of students and in various domains (Emmer & Stough, 2001; Freiberg, Stein, & Huang, 1995; Wang et al., 1993).

2. Effective classroom management and students' motivation

While there is empirical evidence for the benefits of effective classroom management as regards students' achievement, there is surprisingly little research on how classroom management influences other educational objectives. Researchers interested in various educational outcomes sometimes point out that, although classroom management strategies are beneficial to students' cognitive development, they may be detrimental to motivational development (McCaslin & Good, 1992). Proponents of this line of reasoning assume that the prototypical well-managed classroom is a teacher-directed environment, in which the teacher sets behavioural rules for the students, monitors their adherence to these rules, and reacts to behaviour deemed to be inappropriate by imposing negative sanctions. This strong focus on external regulation may mean that students only pursue activities for fear of sanctions, and that fear or boredom are likely to set in, whereas more supportive learning environments that allow students more leeway will have positive emotional and motivational consequences (Bergin & Bergin, 1999).

Further insights into this issue can be found in the literature on interest development and self-determination theory. In both theoretical frameworks, fostering students' appreciation for learning situations and academic content is considered a desirable educational outcome in itself (Krapp, 2002a). *Subject-related interest* is one theoretical construct that has often been used to describe aspects of intrinsic motivation in students' learning (Pintrich, 2003). Following the person—object approach to interest (Krapp, 2002a; Schiefele, 1991), interest is conceptualised as a specific relationship between a person and a topic, an object, or an activity, which is characterized by *positive emotional experiences* and feelings of personal relevance (*value commitment*). This relationship may be a temporary state (situational interest) or a stable disposition (individual interest). Higher levels of interest in a domain are associated with functional and persistent learning behaviours in that domain (Krapp, 2002a). The concept of interest is closely related to the construct of intrinsic motivation. As conceptualised in self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2000b), people's motivation to engage in an activity may be either intrinsic (i.e., pursuing an activity for the satisfaction inherent in it) or extrinsic (i.e., pursuing an activity for the expected external consequences). Four types of extrinsic motivation are categorized in self-determination theory, depending on the degree to which externally driven behaviours are integrated into a person's own value system (Ryan & Deci, 2000b). In one of the most internalized forms of extrinsic motivation, known as *identified extrinsic motivation*, people engage in activities because they have realized the importance of this behaviour for them personally. On this basis, a student's interest in a given domain might involve both an intrinsic (emotion) and an extrinsic motivational component (value). In contrast to the notion of general