



Review

Students' characteristics and teacher–child relationships in instruction: A meta-analysis

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ABSTRACT

This article suggests that students' characteristics play a more important role in classrooms than has previously been thought. To investigate this, a computerized literacy search was conducted, finding 19 studies that focused on the topic. On the basis of these studies a meta-analysis was carried out in which 23 effect size estimates were computed. The results showed that teachers reported more conflict and child dependency, and less closeness in teacher–child relationships when interacting with students who exhibited either a high level of external or a high level of internal problem behavior. In contrast, teachers reported less conflict and more closeness in teacher–child relationships when interacting with students exhibiting high levels of motivation and engagement as compared to other children. Furthermore, teachers reported less conflict, less child dependency and more closeness in teacher–child relationships when interacting with students showing a high level of academic performance.

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1. Introduction

While it is known that teachers influence their students, students may equally have an impact on their teachers' instruction and teacher–student relationships. Many theories of instruction have emphasized that the success of education depends on adapting teaching to the skills of individual students (Corno & Snow, 1986; Doyle, 1979a; Pressley, Hogan, Wharton-McDonald, Mistretta, & Ettenberger, 1996; Rimm-Kaufman, Vorhees, Snell, & La Paro, 2003) and that student characteristics evoke various responses from teachers and impact teacher–child interactions (Borko & Putnam, 1996; Calderhead, 1996; Coplan & Prakash, 2003; Pianta, 2006). Although a number of individual studies have been published on the topic (e.g., Babad, 1990, 1996, 1998; Dobbs & Arnold, 2009; Ladd, Birch, & Buhs, 1999; Raudenbusch, Rowan, & Fai Cheong, 1992; Skinner & Belmont, 1993), the argument that students' characteristics, such as their academic performance, motivation and engagement, and socio-emotional features, have an impact on teacher instruction and teacher–child relationships is conceptually underdeveloped and research in the field has never been systematically reviewed. This is surprising given that in developmental psychology children have, for a relatively long time, been viewed as important agents in their own development (Bell, 1968; Lerner, 1982) and interpersonal relationships (Hartup & Laursen, 1991; Pomerantz & Murry Eaton, 2001; Stattin & Kerr, 2000). The present article addresses these questions by investigating the role that students' characteristics play in teacher instruction and teacher–child relationships.

The notion that students and their characteristics play a role in teachers' classroom behavior and teacher–student relationships has important implications for future research. First, besides investigating the impacts of instruction on students' learning, research on the mechanisms via which students' characteristics activate a certain kind of instruction and teacher responses would expand our understanding of classroom interactions. If student characteristics and behavior impact teachers' instruction and teacher–student relationships, this also needs to be taken into account in theories of instruction. For example, one important question is: what student characteristics, such as students' academic performance, motivation, and socio-emotional features, are the most powerful predictors of teachers' instruction, attitudes and responses in the classroom? Second, if student characteristics are important, this has methodological implications for future research: there is a need to change the focus of research from classrooms on the whole to individual students in classrooms, and distinguish the variation due to individual students within a classroom from the variation due to classroom differences. This is important as different students may receive different kinds of instruction and responses from their teachers and the impact of a specific mode of instruction on later performance may vary between individual students. Third, as teachers may differ in the extent to which student characteristics influence their instruction and relationships with their students, future research also needs to focus on this variation between teachers and on the teacher- and classroom-related factors responsible for it.

The idea that students' characteristics play a role in teachers' instruction and teacher–student relationships also has important practical implications. Firstly, it provides a theoretical basis for the present situation in which teachers need to consider students' skills and other characteristics in many ways; for example, grouping students according to their skills level and providing individual instruction for students who need extra help or special attention (e.g., Corno, 2008). Secondly, the notion that student characteristics play a role in classroom practices emphasizes the importance of finding appropriate pedagogical tools to handle the differences between students in classroom contexts (Doyle, 1979b; Pressley et al., 1996). Finally, as teachers may differ in the extent to which their instruction is influenced by students' characteristics, increasing teachers' self-understanding of such tendencies should be an important part of teacher education, including their continuing education and in-service training after graduation.

In discussing the role of students' characteristics in classrooms, I will employ three broader concepts. First, children's socio-emotional characteristics are conceptualized as internal (e.g., anxiety and depression) and external problem behaviors (e.g., antisocial and pro-social behavior; see Henricsson & Rydell, 2004), and temperamental features (e.g., shyness and inhibition; see Coplan & Prakash, 2003). Second, students' engagement is described in terms of many motivational concepts that range from academic engagement, school liking, and effort to self-regulation and school avoidance (see Baker, 2006; Howes, Phillipsen, & Peisner-Feinberg, 2000). Third, the concept of academic performance refers to a wide spectrum of academic attributes, ranging from academic achievement and skills (e.g., academic performance, reading, spelling, and mathematics; see Baker, 2006; Jerome, Hamre, & Pianta, 2009) to broader characteristics, such as ability (e.g., ability, intelligence or disability; see Blacher, Baker, & Eisenhower, 2009; Jerome et al., 2009). Although academic performance is typically used as an outcome variable and assumed to be a consequence of learning and instruction, there are some reasons why it can be conceptualized as student characteristic as well. For example, from teachers' point of view academic performance is also a student characteristic, because teachers construct knowledge and beliefs about a particular student's academic progress (Borko & Putnam, 1996; Calderhead, 1996; Doyle, 1979a, 1979b) which then impact the instructional methods they use

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