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Teacher-Student Relationships and School Adjustment: Progress and Remaining Challenges

Jan N. Hughes

Department of Educational Psychology, Texas A&M University

Abstract

This commentary highlights the ways in which the articles in this special issue contribute to the second generation of research on teacher-student relationships. Second generation research aims to increase our understanding of the development of these relationships, and the processes responsible for their effects, as well as to evaluate theoretically-informed interventions designed to enhance teacher-student interactions. Despite unanswered questions and challenges that confront this field of inquiry, the current state of knowledge is adequate to apply the knowledge gained to the task of increasing teachers' abilities to provide positive social and emotional learning environments, thereby improving students' learning and behavioral adjustment.

Keywords

teacher-student relationships; teacher professional development; developmental mechanisms; developmental systems theory; behavioral and academic adjustment

Research on teacher-student relationships during the past two decades has focused on documenting the effect of these relationships on children's behavioral and academic adjustment. This research provided strong empirical support for the conclusion that the provision of a supportive teacher-student relationship promotes students' behavioral adjustment and academic achievement. This first generation of research has also documented that supportive teacher-student relationships are an educational asset from preschool through secondary school and buffer students at-risk for poor school adjustment (see Sabol and Pianta, 2012). The second generation of research on teacher-student relationships is well underway. Second generation research aims to increase our understanding of the development of these relationships, and the processes responsible for their effects, as well as to evaluate theoretically-informed interventions designed to enhance teacher-student interactions. In this commentary, I highlight the ways in which the articles in this special issue contribute to these aims and describe the challenges ahead. Despite unanswered questions and challenges that confront this field of inquiry, I argue that "we know enough" to apply the knowledge gained to the task of increasing teachers' abilities to provide positive social and emotional learning environments, thereby improving students' learning and behavioral adjustment.

Contributions to Second Generation of Research on Teacher-Student Relationships Effect of Maternal attachment security on transition to formal schooling

Sabol and Pianta (2012) provide an excellent review of research on the link between attachment security with mothers and children's early relationships with teachers. Although the quality of the mother-child attachment relationship and early teacher-student relationships is moderately consistent, these authors point out that the concordance between mother-child and teacher-child relationship security weakens as students advance to higher grades. Furthermore, the quality of the teacher-student relationship depends not only on what the child brings to the relationship, in terms of mental representations of relationships with caregivers and interpersonal competencies, but also on what the teacher brings to the relationship and the teacher-student daily interactions. Their call for an expanded attachment perspective on teacher-student relationship concordance that incorporates multiple and interactive influences across development is effectively answered by four articles in this series.

Verschueren, Doumen, and Buyse (2012) apply an extended attachment perspective to understanding effects of early attachment security on children's academic and social adjustment to formal schooling. Consistent with core tenets of attachment theory, as well as the broader developmental systems theory (Lerner, 1998), children with secure maternal attachment histories were more likely to establish close and supportive relationships with first grade teachers, which, in turn, uniquely contributed to children's perceived academic competence. Supportive and close relationships with teachers were also linked to positive peer relationships, which were linked to positive perceived social competence. These results extend our understanding of the specialized nature of the effect of different social relationships (mother, teacher, and peer) on different dimensions of children's self-concept.

O'Connor, Collins, and Supplee (2012) illustrate the long-term effect of early attachment security on children's internalizing and externalizing behaviors from first grade through grade 5. Consistent with the findings of Verschueren and colleagues, as well as with cascading models of developmental processes (Burt, Obradovic, Long, & Masten, 2008), they find that maternal attachment security at 36 months of age indirectly affects students' internalizing and externalizing behaviors at grade 5 via the quality of students' intervening relationships with teachers. Of particular interest is the finding of differential effects of two dimensions of teacher-student relationship quality, conflict and closeness, on trajectories for externalizing and internalizing behaviors. Their findings also underscore the importance of a person-centered approach to understanding teacher-student relationships across the elementary school years. Their findings suggest that conflict at variable points during children's elementary grades is detrimental to children's behavioral adjustment. The effect of conflict trajectory classes on academic functioning was recently investigated by Spilt, Hughes, Wu, and Kwok (in press). These researchers reported that high stable and increasing conflict trajectory classes predicted children's 6th grade academic achievement, above the effects of earlier externalizing problems and achievement. It is likely that the negative effect of chronic and increasing conflict on achievement is, in part, due to its effects on children's conduct problems.

Ahnert, Harwardt-Heinecke, Kappler, Eckstein, and Milatz (2012) demonstrate the importance of children's early classroom context on their attachment-derived profiles of relatedness to teachers. Specifically, first grade children in classrooms with low levels of provision of teacher emotional support were more likely to exhibit a proximal-dependent profile of teacher relatedness, a profile that maps onto anxious ambivalent attachment styles.

Mechanisms by which teacher-student relationships impact school adjustment

Three articles in the series shed light on the mechanisms responsible for an effect of teacher-student relationship quality on children's subsequent school adjustment. More convincingly than previously possible, Verschueren and colleagues specify the mechanisms by which attachment security in the preschool years affects children's academic and social functioning as they transition to formal schooling. Because children's relationships with teachers, their academic and social self-views, and their academic and behavioral functioning form part of a dynamic system of reciprocal causation, maternal attachment in preschool years may have broad effects on children's longer-term school adjustment. O'Connor et al. (2012) reinforce this view by demonstrating the indirect effect of maternal attachment at age 3 on 5th grade externalizing problems, through externalizing problems at school entrance and teacher-student relationship conflict trajectories across the elementary grades.

The role of adults as a "secure base" for children's positive and active exploration of and engagement in their environment is a central premise of attachment theory (Bretherton & Munholland, 1999; Verschueren & Koomen, 2012). A close and supportive relationship with the teachers presumably serves as external source of stress regulation, allowing children to direct their energies toward engagement with tasks, peers, and teachers in the classroom. However, few studies have tested the role of teachers on children's stress regulation (for exception see Little & Kobak, 2003). Ahnert and colleagues (2012) provide clear and convincing evidence that the provision of a supportive teacher relationship serves this purpose. Specifically, children provided with a supportive learning environment in first grade evinced diurnal and weekly patterns of salivary cortisol indicative of effective stress regulation. Given the well-established effects of stress on learning (Blair, 2010), these results provide strong evidence for the academic benefit of the provision of an emotionally positive learning environment.

An attachment-informed, reflection-focused model of teacher professional development

Spilt, Koomen, Thijs, and van der Leij (2012) answer the widely voiced call for the development and evaluation of theoretically informed interventions to improve teacher-student relationships. Their reflection-focused intervention is based on the assumption that teachers' opportunities to reflect on their behaviors, intentions, and feelings in respect to specific students will increase their capacity for sensitive responding, thereby increasing students' attachment security and reducing relational conflict. Their results provided mixed evidence of the benefit of the reflection-focused intervention, relative to an intervention designed to build teachers' interpersonal effectiveness. However, consistent with empirical studies on maternal mental states and caregiving behavior, results suggest that the reflection-focused intervention improved teachers' observed sensitivity. The reflection-focused intervention, however, was less effective than the interpersonal skills intervention in reducing teacher-perceived relational conflict. The lack of a "no treatment" control condition poses challenges to evaluating effects of each intervention.

Spilt and colleagues' (2012) most intriguing results pertain to individual variability in slopes for teacher-rated closeness and conflict. Teachers in the reflection-focused intervention, but not in the interpersonal competence intervention, varied in slope for teacher-rated closeness and conflict. In the case of teacher-student conflict, higher teacher self-efficacy predicted decreasing conflict. These findings are important because they direct our attention to the "fit" of the intervention to the teacher. One might expect that variability in adults' mental

representations of self and others would influence their acceptability of, and responsiveness to, an intervention that requires teachers to reflect on their mental states and to bring into consciousness previously inaccessible thoughts and feelings. More theoretically informed research that addresses teacher characteristics as a moderator of intervention responsiveness is needed. Teachers' goals and teaching philosophy, teaching self-efficacy, and self-awareness of their own emotional states and capacity to use this awareness to regulate one's behavior likely affect their responsiveness to different interventions.

Challenges for Second Generation Research on Teacher-Student Relationships Integration of multiple theoretical perspectives

As noted by Sabol and Pianta (2012), teacher-student interactions are likely the result of multiple and interactive influences. Given this complexity, multiple theories are needed to understand how teacher-student relationships develop and the nature of their effect on students (see also Verschueren & Koomen, 2012). Attachment theory has proven its value in establishing the role of maternal attachment security on teacher-student relationships at the transition to elementary school. As children advance in school, maternal attachment security may be a less important factor in children's academic and behavioral adjustment than are other social relationships, including children's relationships with teachers and peers (which are shaped in part by early maternal attachment and resulting internal working models). Self-determination theory (Deci & Ryan, 1985) provides a robust theoretical framework for studying the effect of teacher-student relationships on children's academic engagement and achievement. Specifically, students whose relationships with teachers are characterized by emotional warmth, opportunity for independent decision-making, and instruction that is responsive to their learning needs develop a positive school identity and invest more in learning (Furrer & Skinner, 2005; Vansteenkiste, Simons, Lens, Soenens, & Matos, 2005; Hughes, Luo, Kwok, & Loyd, 2008). One challenge is to identify specific, theoretically informed processes that account for the dynamic relations between teacher-student relationships, child characteristics, and the classroom context. For example, as suggested by articles in this series, the provision of emotional warmth and acceptance by the teacher may reduce the poorly regulated child's level of stress reactivity, increase the child's sense of academic efficacy, or improve the child's peer reputation in the classroom, all of which may result in more productive classroom engagement in tasks, teachers, and peers.

Adopt a broader contextual view of teacher-student relationships

Teacher-student interactions have been studied, for the most part, in isolation from other teacher behaviors, or instructional practices. Classrooms are complex systems of interactions, and social and instructional features likely influence each other and interact in complex ways. For example, a rich empirical literature exists on the effect of teacher classroom goal structures on students' motivation and achievement (for reviews see Ames, 1992; Urdan, Midgley, & Anderman, 1998). Classroom goal structures refer to messages in the learning environment, particularly teacher practices that make certain achievement goals salient (Ames, 1992). A *classroom performance goal structure* is characterized by the teacher emphasizing student performance relative to normative standards rather than relative to the student's prior performance. Features of this structure are the teacher's provision of more public versus private performance feedback, and the valuation of correct answers over effort and learning. In contrast, a *classroom mastery goal structure* is characterized by instructional practices that emphasize effort and improvement over correct answers, the development of competencies, and the student's intrinsic motivation. Recent research suggests that students' perceptions of the emotional climate of the classroom, defined in terms of teacher support and respect for students, is an integral component of their perceptions of a mastery goal structure in the classroom (Patrick, Kaplan, & Ryan, 2011).

These findings support the view that the provision of challenging instruction with adequate supports for learning is one way teachers communicate their concern and respect for students (Nodding, 1992). The perceptions “my teacher cares about and respects me” and “my teacher cares about my learning” may be indicators of a more general perception of teacher support. Additional research is needed to better understand teacher practices that shape students’ perceptions of a mastery goal structure and of classroom emotional climate, as well as the joint contributions of each to achievement.

Develop teacher-student relationship interventions at both the dyadic and classroom level

More attention has focused on interventions designed to improve teaching practices at the classroom level than at the dyadic level. Although classroom-level interventions likely result in improvement at the dyadic level, problematic teacher-student relationships may exist in classrooms with generally positive climates. Spilt and colleagues (2012) addresses the need for interventions focused on troubled dyadic relationships. Banking Time is another promising attachment-informed, dyadic intervention designed to improve troubled teacher-student relationships (Driscoll & Pianta, 2010). A possible limitation of interventions at the dyadic level is the lack of willingness on the part of schools to invest in interventions that are focused on a single student. Evidence that such interventions result in improved teacher knowledge and skills that teachers apply to their interactions with other students will be essential to building teacher and administrator support for them.

Utilize sophisticated, longitudinal research designs

The complexity of teacher-student relationships requires not only multiple theories but also longitudinal research designs capable of clarifying causal processes, including reciprocal and cascading processes. Because children’s behavioral dispositions, relationship history, academic skills, and other child-level competencies influence the quality of their relationships with teachers, designs must be capable of distinguishing when teacher-student relationship quality is a marker of child characteristics rather than a cause. This concern is relevant to the investigation by Kobak, Herres, and Laurenceau (2012) of the link between adolescents’ relationships with teachers and their romantic relationships and sexual behavior. These researchers found that youth who reported more conflict in their relationships with teachers at ages 14 were more likely at age 15 and 17 to engage in risky sexual behavior. The authors interpret this finding as evidence that adolescents’ relationships with teachers influence their subsequent romantic relationships and sexual behavior. Although this interpretation is plausible, the design does not permit such a conclusion, as factors that predict both teacher-student conflict and risky sexual behavior (e.g., student conduct problems or low school engagement) could account for the association between relationship conflict and risky sexual behavior. That is, the measure of teacher-student conflict could be a marker of poor behavioral and academic risk for sexual risk taking rather than a cause.

Investigate developmental aspects of effects of teacher-student relationships

As noted by Sabol and Pianta (2012), we have a limited understanding of the role of teacher relatedness across children’s development. These authors call for the development of measures that span elementary and secondary levels, to permit investigation of change and growth in relationships across developmental transitions as well as variations in mechanisms by which teacher relatedness influences school outcomes.

Studies of teacher-student relationship quality across a number of years can also shed light on variations in its effects at different developmental periods. With respect to variations in the effect of teacher relatedness at different developmental periods, findings by Verschueren and colleagues (2012) suggest that children's relationships with their first grade teachers may have long-term effects via cascading processes, a finding consistent with those of Hughes et al. (2008). Based on life course theories of development that emphasize the role of transitions for development (Elder, 1998), one might expect that the provision of a supportive relationship with a teacher may have a larger effect on children's achievement trajectories at school transitions (e.g., from preschool to formal schooling or from elementary to middle school), relative to other grades, although no study has tested this proposition. The lack of measures of teacher-student relatedness appropriate across the elementary and middle schools is an obstacle to such studies.

Identify the active ingredients of teacher-focused interventions

Educators who apply adult learning theories to teacher professional development acknowledge the key roles of teacher reflection and teacher autonomy to sustained changes in teacher practices (Assor, Kaplan, Kanat-Maymon, & Roth, 2005; Loyens, Magda, & Rikers, 2008). Reflection allows teachers to think critically about their teaching style, interactions, and skills (Howard & Aleman, 2008). Reflection is described as a process of thinking about an experience, action or situation in order to identify underlying issues and effect change (Korthagen & Vasalos, 2005; Ottesen, 2007). Consistent with this reasoning, recent teacher professional development interventions that provide teachers with opportunity to reflect on individualized feedback on specific classroom teaching sessions have produced improved teacher-student relationships and positive social climate as well as improved student outcomes (Allen, Pianta, Gregory, Mikami, & Lun, 2011; Bygdeson-Larsson 2006; Landry, Anthony, Swank, & Monseque-Bailey, 2009; Raver et al., 2009).

Although interventions that provide context-embedded, individualized feedback anchored in specific teaching behaviors have demonstrated efficacy, knowledge of the active ingredients of these interventions is lacking. For example, what consultant behaviors predict improvement in teacher behaviors? Reliable and valid measures of consultation processes (e.g., consultant provision of emotional support, feedback on specific behaviors, or elicitation of teacher reflection on practice) are needed in order to identify specific consultant behaviors responsible for changes in teacher behaviors. Such evidence would inform the preparation of teacher consultants.

Implications for Educational Practice Now (We Know Enough)

Although there is much more to learn about the development and effects of teacher-student relationships on students' academic motivation and achievement, the current state of knowledge is sufficient to inform educational practice and policy. I offer three recommendations for application.

First, pre-service and in-service teachers should be provided with instruction and consultation/coaching in teaching practices found to create a positive social and emotional climate for learning. Effective programs are likely to last over a period of months and to include a) opportunities for teachers to reflect on their interactions within the context of a supportive consultant/coach, b) instruction in specific, empirically supported teaching practices, and c) feedback from the consultant/coach based on shared observations of teaching practices in the classroom.

Second, assessment of teacher-student relationships should be a standard component of strategies to identify students at risk for social and academic difficulties. Due to cascading

effects of early relationship problems on children's social and academic adjustment, early troubled relationships are likely to have long-lasting effects. Schools should implement programs for screening troubled relationships, especially in the early grades, and to support teachers in improving troubled relationships.

Third, school reform efforts should include measures of teacher-student relationships in evaluations of teacher performance. In education, as in much of life, "what gets inspected gets expected." Measuring teachers' skills at establishing supportive learning environments would emphasize the importance of these skills to effective teaching. A number of approaches to assessing teacher-student relationship quality have yielded good evidence of reliability and construct validity. Child and teacher reports of teacher-student relationship quality (Li, Hughes, Kwok, & Hsu, 2011; Hamre & Pianta, 2001), peer nomination measures of teacher-student support (Li et al., 2011), and direct observation of teacher-student interactions (Pianta, La Paro, & Hamre, 2008) have yielded evidence of reliability and construct validity.

Conclusion

The articles in this special issue serve to remind us of the progress made in understanding the development of teacher-student relationships and the pathways by which these relationships affect students' social, behavioral, and academic adjustment. The articles also point toward the need for additional research, in order to ensure that all students are provided the social and emotional supports at school that are critical to their full and positive participation in school. Both the encouragement and the direction are much appreciated.

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