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Managing peer relations: A dimension of teacher self-efficacy that varies between elementary and middle school teachers and is associated with observed classroom quality

Allison M. Ryan *, Colleen M. Kuusinen, Alexandra Bedoya-Skoog

University of Michigan, Ann Arbor, MI 48104, USA

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ABSTRACT

This study examined the nature of teachers' self-efficacy, differences between elementary and middle school teachers' self-efficacy and the implications for observed classroom quality. Teachers (N = 101; 61% female and 85% European American) completed a survey and 96 were observed teaching two different classes. The sample included 6th grade (n = 44) and 7th grade (n = 30) teachers from six middle schools and 5th grade teachers (n = 27) from twelve feeder elementary schools. Exploratory factor analysis indicated that teachers' self-efficacy for managing peer relations is a distinct dimension from teachers' self-efficacy for classroom management, instruction and student engagement. Teachers felt less efficacious about managing peer relations compared to classroom management and instruction. Further, middle school teachers reported lower self-efficacy for classroom management and managing peer relations compared to elementary school teachers. For elementary and middle school teachers, their self-efficacy for classroom management and for managing peer relations was associated with some aspects of observed classroom quality.

1. Introduction

The transition to middle school marks the beginning of a downward trend in academic motivation, engagement and achievement for many children. Disengagement and underachievement during this stage have negative long-term consequences for academic and career trajectories (Eccles, Vida, & Barber, 2004). Research from a stage-environment fit perspective has shown that the classroom context plays an important role in the negative changes in students' academic adjustment (Eccles et al., 1993; Midgley, 2002). In general, the classroom environment changes in ways that are less supportive of early adolescent students' needs (e.g., teachers are less emotionally supportive) and these changes predict decrements in student academic adjustment (Midgley, Feldlaufer, & Eccles, 1989).

Teachers are an integral part of the classroom context. In their large-scale study of changes in the classroom environment across the transition to middle school, Midgley and her colleagues found that one of the biggest differences was the level of teachers' self-efficacy. Seventh grade math teachers reported lower levels of self-efficacy for teaching than did 6th grade math teachers in the same school districts (Midgley, Feldlaufer, & Eccles, 1988). These differences in self-efficacy mattered for student motivation. Students who moved from high-efficacy teachers to low-efficacy teachers ended their 7th grade year with lower expectations for themselves in math, lower perceptions of their performance in math, and higher perceptions of the difficulty of math than did adolescents who experienced no change in teacher self-efficacy or who moved from low to high self-efficacy teachers (Midgley et al., 1989). This is consistent with other research that has found teachers' self-efficacy matters for instructional quality and student achievement (Klassen & Tze, 2014; Tschannen-Moran, Hoy, & Hoy, 1998).

The goal of the present study is to expand our understanding about the nature of teachers' self-efficacy, differences between elementary and middle school teachers' self-efficacy, and the implications for their teaching practices. Midgley et al. (1988, 1989) used a uni-dimensional measure of teachers' self-efficacy. In line with contemporary views that a teacher's self-efficacy is multidimensional (Fives & Buehl, 2010; Klassen et al., 2009; Skaalvik & Skaalvik, 2007; Tschannen-Moran & Hoy, 2001; Wolters & Daugherty, 2007), we examine teachers' self-efficacy for classroom management, instruction and student engagement to allow insights into what aspects of teachers' self-efficacy might be most vulnerable in middle school classrooms. Given the importance of peer relations for students' adjustment as well as the great changes that students' peer relationships undergo during early adolescence, we examine an additional dimension: teachers' self-efficacy for managing peer relationships. We investigate if this dimension is distinct

* Corresponding author. University of Michigan, Ann Arbor, MI 48104, USA. Fax: +(734) 936-1606.
E-mail address: aliryan@umich.edu (A.M. Ryan).

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from the other dimensions of teachers' self-efficacy, how mean levels of this dimension compare to the other dimensions within teachers, and if it poses a unique challenge for middle school teachers compared to elementary school teachers. We then examine all dimensions of teachers' self-efficacy in relation to observations of classroom quality.

1.1. Teachers' self-efficacy

Teachers' self-efficacy refers to teachers' beliefs in their capability to successfully enact teaching tasks in a particular context (Tschannen-Moran et al., 1998). It is different than teachers' actual or perceived competence because self-efficacy beliefs reflect judgments of perceived capabilities to enact teaching tasks, even if one is not currently performing at a desired level of competence. In that way, it is predictive of future behavior and has been positively associated with teacher persistence with struggling students (Allinder, 1995), increased goal setting and willingness to innovate (Gibson & Dembo, 1984) and student achievement (Bruce, Esmonde, Ross, Dookie, & Beatty, 2010; Caprara, Barbaranelli, Steca, & Malone, 2006; Guo, Piasta, Justice, & Kaderavek, 2010; Midgley et al., 1989). Early studies of teachers' self-efficacy used uni-dimensional measures of efficacy that assessed teachers' beliefs that they could have an impact on students above and beyond that of the student's home environment (Armor et al., 1976; Gibson & Dembo, 1984; Midgley et al., 1989). This approach was critiqued for lack of congruence with self-efficacy theory, particularly the focus on general beliefs about teachers' potential impact or attributions for student success rather than capabilities to enact specific teaching tasks (Henson, 2002; Tschannen-Moran et al., 1998). Responding to these measurement and conceptual concerns, current conceptualizations of teachers' self-efficacy utilize multi-dimensional measures, such as the Teachers' Sense of Efficacy scale (TSES; Tschannen-Moran & Hoy, 2001). This scale specifies three different dimensions of teaching tasks: classroom management, instruction, and student engagement. Each subscale focuses, respectively, on teachers' perceived capabilities to manage disruptive student behavior, plan for and assess student learning, and motivate students to do well and value learning (Klassen et al., 2009; Tsigilis, Koustelios, & Grammatikopoulos, 2010). In the present study we examine these dimensions of teachers' self-efficacy and propose another important dimension: managing peer relationships.

1.2. Teachers' self-efficacy for managing peer relationships

Peer relations are a salient aspect of classrooms and schools. As students, children need to learn to get along with a wide variety of peers, form friendships, function in groups, play games, cooperate on work, manage emotions, handle disagreements and avoid problems. In the classroom, students are surrounded by peers with whom they can learn from, compare themselves to and garner support from (Rodkin & Ryan, 2012). Peers can inspire prosocial or antisocial behavior, make a student feel safe and valued or threatened and victimized, and can serve to bolster motivation and engagement or distract and lead to off-task behavior. The importance of peers for students' school adjustment has been widely documented (Altermatt, Pomerantz, Ruble, Frey, & Greulich, 2002; Gest, Rulison, Davidson, & Welsh, 2008; Juvonen, 2007; Kindermann, 2007; Ladd, Herald-Brown, & Reiser, 2008; Ryan, 2001; Wentzel, 2005). More recently, there has been attention to the role that teachers play in students' peer relationships at school (Farmer, Lines, & Hamm, 2011; Gest & Rodkin, 2011; Hamm, Farmer, Dadisman, Gravelle, & Murray, 2011; Hughes, 2012; Rodkin & Ryan, 2012; Wentzel, Baker, & Russell, 2012).

Teachers establish the environment in which students relate to one another by creating communities within their classroom with norms and values for student relationships as well as learning (Rodkin & Ryan, 2012; Ryan & Patrick, 2001). Teachers direct social opportunities and set behavioral expectations for how students interact with one another as well (Hughes, 2012). They provide information, reinforce appropriate behavior, provide guidance and correct actions that are atypical or unacceptable. Teachers have the potential to affect peer relationships by promoting the productive engagement of all students and helping students struggling socially to develop new social roles or friendships in the classroom (Farmer et al., 2011). At times, managing peer relations is likely to overlap with teachers' strategies for classroom management, instruction, and student engagement, but is also likely to be a distinct issue to which teachers attend (Bierman, 2011).

Changes in educational policy and the social landscape of middle schools merit investigation of teachers' efficacy for managing peer relations. First, the introduction and implementation of the Common Core State Standards (CCSS) in mathematics and English has produced a set of standards that emphasize students' abilities to work together cooperatively, discuss academic content, cite evidence to support their opinions as well as assess others' use of evidence (Common Core State Standards, 2010). These "twenty-first century skills" are recognized as critical for students, yet may be insufficiently addressed in teacher education programs or professional development programs (Binkley et al., 2012). Secondly, the problem of bullying and its potentially severe consequences on students' mental health and academic achievement has received a great deal of deserved attention in recent years (American Educational Research Association, 2013). Teachers have assumed increasing amounts of responsibility to prevent bullying through creating a positive climate in the classroom; therefore, teachers' perceived capabilities to address social problems in the classroom as well as manage instances of bullying is a critical area of investigation.

We conceptualize teachers' self-efficacy for managing peer relations as encompassing teachers' perceived capabilities for creating a classroom climate characterized by positive peer relationships among students (e.g., cooperation, respectful behavior), facilitating students' friendships and addressing social problems (e.g., helping students overcome a disagreement or solving bullying and teasing issues). Given this is a new construct, we will explore how teachers' level of self-efficacy for managing peer relations compares to other dimensions of their self-efficacy. That is, we will explore if teachers are generally more or less confident in their ability to manage peer relations compared to their confidence for classroom management, instruction and student engagement.

1.3. Teachers' self-efficacy: Differences between elementary and middle school teachers

In general, research has found that teachers in elementary schools have higher self-efficacy compared to teachers in middle schools (e.g., Guskey, 1987; Midgley et al., 1988; Midgley, Anderman, & Hicks, 1995). These differences could reflect the developmental characteristics of the students, such as adolescents' increased attention to peer relationships over academic concerns, but may also reflect structural features of middle schools that make it more difficult for teachers to effectively engage students. Middle school teachers instruct a much larger number of students during the course of the day than do elementary school teachers in self-contained classrooms. As students rotate teachers every hour, middle school teachers spend much less time with students on a more rigid time schedule compared to elementary school teachers. Because middle school teachers only see most of their students for one class period a day, they may not get to know their individual students as well as elementary school teachers. Overall, the large and bureaucratic nature of middle schools makes it harder for teachers to have warm and positive relationships with all their students and engage them in