**TEACHING
AND TEACHER
EDUCATION**

Motivation beliefs of secondary school teachers in Canada and Singapore: A mixed methods study

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Abstract

A mixed methods approach was used to explore secondary teachers' motivation beliefs in Canada and Singapore. Results from Study 1 revealed that socio-economic status (SES) was the strongest predictor of school climate in Canada, and that collective efficacy mediated the effect of SES on school climate in Singapore, but not in Canada. In Study 2, interviews were conducted with 10 teachers in Canada and 14 teachers in Singapore. Teachers in both settings discussed students' social and behavior problems, but the range of the social problems was greater in Canada than in Singapore, and had a stronger impact on teachers' motivation beliefs.

1. Introduction

Teaching is a demanding job in all cultures, and what teachers believe about their capabilities affects how successful they are in meeting daily challenges. Considerable recent research has explored teachers' self- and collective efficacy beliefs, and how these beliefs influence student achievement, job satisfaction, and perceptions of school academic climate (e.g., Caprara, Barbaranelli, Borgogni, & Steca, 2003; Caprara, Barbaranelli, Steca, & Malone, 2006; Goddard, 2001; Tschannen-Moran & Barr,

2004; Tschannen-Moran & Woolfolk Hoy, 2001). However, little research has explored how teachers' efficacy beliefs operate outside of culturally western settings. We believe that teachers' beliefs in their self- and collective efficacy reflect motivational beliefs that have universal relevance, but this hypothesis has been little tested. In this article we explore how teachers' motivation beliefs—self-efficacy and perceived collective efficacy—are related to teachers' perceptions of academic climate, and also how socio-economic status (SES) is related to teachers' motivation in two contrasting cultural settings—Canada and Singapore. In order to best understand the complex relationships between teacher motivation, SES, and academic climate across cultures, we used a mixed methods approach in which we strove to examine general principles

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and specific examples relating to teachers' motivation across cultures.

1.1. Efficacy beliefs and academic climate

Teacher efficacy research dates back to the studies carried out by the RAND organization in the mid-1970s, when two survey items were created to investigate teachers' beliefs in their ability to influence student achievement (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). Gibson and Dembo's (1984) influential measure of teacher efficacy built on the RAND measure, and consisted of two factors, one measuring *personal teaching efficacy*—essentially teachers' self-efficacy—and the other measuring *general teaching efficacy*—teachers' assessment of the influence of environmental obstacles. Concern with conceptual and theoretical weaknesses in the Gibson and Dembo measure led to creation of a number of new teacher efficacy measures, one of which—the Teachers' Sense of Efficacy Scale—was created by Tschannen-Moran and colleagues in the last decade to reflect greater conceptual congruence with the theoretical tenets of self-efficacy theory (Tschannen-Moran & Woolfolk Hoy, 2001; Tschannen-Moran et al., 1998). The measure has been investigated in American settings (e.g., Knobloch & Whittington, 2002; Tschannen-Moran & Woolfolk Hoy, 2001; Wolters & Daugherty, 2007), but not in cross-cultural settings.

Teachers' motivation beliefs have been the focus of recent research, with considerable attention paid to the role of teachers' self- and collective efficacy. Bandura (1997) defines self-efficacy as beliefs in the capabilities to successfully carry out a particular course of action, and a large body of research supports the claim that self-efficacy is an important influence on human achievement in a wide variety of settings, including education, health, sports, and work (Bandura, 1997). In educational contexts, extensive research has shown that students' self-efficacy plays an important role in influencing achievement and behavior, but there is increasing evidence that teachers' self-efficacy beliefs also play a key role in influencing student achievement, through increasing teachers' confidence that they can manage their classroom and provide effective instruction for all students. Self-efficacy influences a teacher's persistence, enthusiasm, commitment, and teaching behavior, and has been found to influence student achievement and teachers' job satisfaction

(Caprara et al., 2006; Tschannen-Moran & Woolfolk Hoy, 2001).

Collective efficacy is defined as "a group's shared beliefs in its conjoint capabilities to organize and execute the courses of action required to produce given levels of attainments" (Bandura, 1997, p. 477). Teachers' collective efficacy refers to beliefs that a school staff as a group is collectively able to influence student outcomes, even in challenging conditions. Goddard (2001) called teachers' collective efficacy a "neglected construct" in educational research (p. 467), and found that collective efficacy significantly predicted student achievement, even after controlling for prior achievement and demographic characteristics. Measurement of collective beliefs can prove challenging. Bandura (1997) suggests that individual assessments of group capabilities offer a more valid form of measurement than aggregating individuals' self-efficacy beliefs, or seeking a group consensus of the group's efficacy, since individuals within the same group may differ on how they view their group's efficacy. Because the purpose of this study was to investigate the relationship of within-teacher motivation factors—that is, teachers' beliefs in their self- and collective efficacy and their perceptions of academic climate—we measured teachers' individual perceptions of their collective efficacy beliefs rather than at the school level. We were also interested in linking teachers' collective efficacy beliefs with another variable concerned with perceptions of school functioning—academic climate.

Although school characteristics like family background or SES have proven to be key factors in predicting student achievement, a school's academic climate, defined as the extent to which a school is driven by a quest for academic excellence (Hoy, Tarter, & Woolfolk Hoy, 2006), or as the relationship between school and students (Hoy, Smith, & Sweetland, 2002) has also been shown to be strongly related to student achievement in elementary school, middle school, and secondary school settings. This press for academic achievement is an especially important variable in schools in disadvantaged economic settings—Hoy et al. (2006) show that academic climate, together with teachers' collective efficacy and faculty trust in parents and students, form a construct that they call academic optimism, which influences school norms and behavioral expectations beyond the influence of demographic factors like SES. A teacher's perception of his or her school's academic climate influences instructional