Students' emotional and cognitive engagement as the determinants of well-being and achievement in school

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A R T I C L E   I N F O

Article history:
Received 14 October 2013
Received in revised form 29 April 2014
Accepted 9 May 2014
Available online 29 May 2014

Keywords:
Emotional and cognitive engagement
Subjective well-being
Learning outcomes

A B S T R A C T

This study aims to gain a better understanding of the interrelation between students' emotional and cognitive engagement that is mediated by experienced well-being in school. The main hypothesis was that perceived emotional engagement constructed in the peer group and in teacher–student interaction together with school-related well-being contributes to students’ perceived cognitive engagement and, further, to their school achievement. A total of 170 students from three case study schools were surveyed, and the hypothesis was tested using structural equation modelling (SEM). The results showed that students' cognitive engagement was highly dependent both on the dynamic interplay between students and the school environment and, more broadly, on the daily pedagogical practices adopted in schools. Moreover, the students’ experience of school-related well-being was a key mediator for emotional and cognitive engagement and, further, contributed to their school achievement. The detected interrelation between student learning and subjective school-related well-being has potentially significant implications for further studies attempting to understand the complexity of the experience of engagement in the multiple social contexts provided by schools. The findings further imply that the focus in developing school pedagogical practices should be the dynamics between students and their learning environment rather than solely the individual or the environment.

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1. Introduction

Previous research on school engagement has shown that being engaged in school has a significant impact on both students’ subjective well-being (Creed, Muller, & Patton, 2003; Eccles, Vida, & Barber, 2004) and their academic performance (Wang & Holcombe, 2010). Students engaged in their studies, for example, receive higher grades and perform well on standardized tests (Ladd & Dinella, 2009; Schunk & Pajares, 2005). They also tend to use functional achievement strategies such as optimistic and task-focused strategies (Mäkikangas & Kinnunen, 2003; Salmela-Aro, Kiuru, Leskinen, & Nurmi, 2009) and are less likely to suffer from study burnout in later academic life (Salmela-Aro, Tolvanen, & Nurmi, 2011). Most students successfully engage in school activities throughout their school careers; however, some face serious problems. Willms (2003), for instance, found that in OECD countries, 25% of students experienced low emotional engagement at school, with
20% regularly absent from school. Reduced levels of engagement have been shown to have a serious impact on students, resulting in underachievement, a higher incidence of negative behaviours and an increased risk of dropping out of school (Finn & Rock, 1997; Wu, Hughes, & Kwok, 2010).

Students’ school engagement refers to their active involvement in school related tasks and activities (e.g., Appleton, Christenson, Kim, & Reschly, 2006). Within the literature, school engagement is perceived as a meta-construct comprised of behavioural, cognitive and emotional dimensions (e.g., Archambault, Janosz, Fallu, & Pagani, 2009; Fredericks, Blumenfeld, & Paris, 2004; Sharkey, Sukkyung, & Schnoebelen, 2008; Zaff et al., 2011). Behavioural engagement entails the active participation and involvement of the student in social groups, classroom interaction, study—both at school and home—and extracurricular activities related to school (e.g., Archambault et al., 2009; Powell, Burchinal, File, & Kontos, 2008). Cognitive engagement, on the other hand, refers to the student’s personal investment in learning activities, including self-regulation, the commitment to mastery learning and the use of studying strategies (e.g., Sedeghat, Adedin, Hejazi, & Hassanabadi, 2011). Emotional engagement encompasses the affective factors of engagement, including enjoyment, support, belonging and attitudes towards teachers, peers, learning and school in general (e.g., Eccles, Wigfield, Harold, & Blumenfeld, 1993; Watt, 2004). The emotional, cognitive and behavioural components of school engagement have been suggested to capture the related but separately developing dimensions contributing to a student’s active involvement in school (Jimerson, Campos, & Greif, 2003; Wang & Eccles, 2011).

Research on school engagement has been criticized for emphasizing adaption to the expectations and norms set by the school context (Chapman, 2003) by, for example, claiming that a lack of disruptive behaviour (Caraway, Tucker, Reinke, & Hall, 2003) is one of the primary criteria of engagement rather than focusing on meaningful school experience. This neglects the core of school engagement, i.e., a positive and fulfilling school experience that promotes meaningful learning. Skinner and Belmont (1993, p. 572), for example, discovered that students who are engaged in learning activities displayed behavioural involvement accompanied by a positive emotional tone and intense effort and concentration on the learning task. Nevertheless, we know surprisingly little about how emotional engagement constructed in peer relations and teacher–student interaction contributes to student cognitive engagement, how these ingredients are interrelated and, further, how these factors promote students’ involvement in carrying out learning activities (e.g., Fall & Roberst, 2012; Goodenow, 1993; Jennings, 2003; Skinner & Belmont, 1993; Skinner, Kindermann, & Furrer, 2009).

The present investigation explores how emotional engagement in the teacher–student relationship and the peer group, together with school-related well-being, contributes to students’ cognitive engagement in academic activities and learning outcomes. It has been suggested that the intensity and experienced quality of a student’s involvement in social relations and learning activities is a central criterion for school engagement (Gresalf, Martin, Hand, & Greeno, 2009; Linnenbrink-Garcia & Pekrun, 2011; Skinner & Belmont, 1993). Accordingly, this study focuses on exploring students’ emotional engagement in terms of their sense of belonging and the positive affects experienced in social relations in school (Pyhältö, Soini, & Pietarinen, 2010; Wang & Eccles, 2011). Cognitive engagement, on the other hand, is examined as students’ experience of competence and the capacity to successfully cope with various academic tasks and participate in academic activities provided by teachers (Skinner & Belmont, 1993; Wang & Eccles, 2011). The perspective adopted emphasizes students as active learners who are effective and focused on their school work and who engage in learning, not just in school activities (Pietarinen, Soini, & Pyhältö, 2010; Pyhältö et al., 2010).

2. Emotional and cognitive engagement—the socially constructed premises for meaningful learning

Research on school engagement has identified multiple environmental and individual factors that contribute to students’ emotional and cognitive involvement in academic activities. For instance, teachers’ instructional behaviours and support (Pelletier, Legault, & Séguin-Lévesque, 2002; Skinner, Furrer, Marchand, & Kindermann, 2008), the challenge provided by the task at hand (Davidson, 1999), the strategies students use (Reeve & Tseng, 2011; Ryan & Patrick, 2001) and their background and parental support (Patrick, Ryan, & Kaplan, 2007; You & Sharkey, 2009) have all been shown to contribute to students’ emotional and cognitive engagement in school work.

In particular, teacher support has been reported to enhance students’ focus on mastery goals, academic efficacy and self-regulated learning, which further facilitates students’ emotional and cognitive engagement (Wu et al., 2010; Skinner, Kindermann, Connell, & Wellborn, 2009; You & Sharkey, 2009). Students whose relationships with teachers are characterized by greater closeness and less conflict have, for example, been shown to exhibit lower levels of aggression and other conduct problems (Silver, Measelle, Armstrong, & Essex, 2005), to be better accepted by their peers (Hughes, Cavel, & Willson, 2001) and to achieve at higher levels (Skinner & Belmont, 1993). Emotional engagement in teacher–student relationships has also been found to have significant implications for students’ future academic achievement and social and behavioural outcomes (e.g., Pianta & Stuhlman, 2004; Silver et al., 2005; Wang & Holcombe, 2010). For instance, primary school students whose relationships with teachers are characterized by conflict are more likely to be held back a year, experience peer rejection and participate less in classroom activities (Silver et al., 2005). This implies that the quality of student–teacher interaction is central for an emotionally engaging school experience and, hence, an important determinant of cognitive engagement.

The evidence on whether and under what conditions emotional engagement in peer relations contributes to students’ cognitive engagement in learning is, however, more contradictory (Ravet, 2007; Shernoff & Schmidt, 2008; You, 2011). Some studies indicate that students who are less liked by peers are also less involved in academic activities and achieve lower