Does Emotional Self-efficacy Predict Teachers' Self-efficacy and Empathy?

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Abstract

Research has shown that teachers` self-efficacy and empathy are two of the most important variables consistently related to outcomes of positive teaching and student learning. Emotional self-efficacy refers to peoples' judgment regarding their own capacity to process emotional information accurately and effectively. It is considered a powerful variable affecting the emotional state of individuals and their performance. The main objective of the present study was to examine to what extent emotional self-efficacy predicts teachers` self-efficacy and empathy in teachers. Findings indicated that emotional self-efficacy predicts both empathy and teachers` self-efficacy. These results contribute to the growing body of literature maintaining that in order to practice and succeed in the complex and demanding school milieu, teachers must develop not only their teaching skills, but the emotional capacity required to enhance their resilience, their survival and their ability to innovate.

Keywords: emotional self-efficacy, empathy, teacher self-efficacy

1. Introduction

Recently, the focus of the investigation of the effectiveness of teachers has shifted from the teachers' knowledge of their content area, development of lesson plans and classroom management skills, to identification of teachers' beliefs and self-regulatory skills, necessary for teaching and learning (Bembenutty, 2007). It was shown that empathic teachers tend to create a safe and encouraging learning milieu, and to foster positive relations with their students (Cooper, 2010) .Teachers` self-efficacy beliefs were also found to be associated with a wide range of teaching and learning motivations and contributions to students performance and achievements (Thoonen, Sleegers, Peetsma, & Oort, 2011; Tschannen-Moran, & Woolfolk Hoy, 2007). While a wide range of studies examined the contributions of empathy and teachers` self-efficacy to teaching and learning outcomes, little has been written about possible sources and predictors of these variables (Gibbs & Powell, 2012). Following the findings of a previous study that examined the emotional determinants of teachers' self-efficacy (Hen & Goroshit, 2013) and other studies, that indicated the importance of teachers' emotional understanding and their confidence in their ability to manage and regulate emotions (Aultman, Williams-Johnson, & Schutz, 2010; Gibbs, 2003), the present study examined emotional self-efficacy as a predictor of teacher's self-efficacy and empathy.

1.1 Empathy in Teachers

Researchers usually describe empathy as the moral feeling concerning the welfare of others, facilitating inter-personal relationships and influencing people to engage in pro-social and altruistic behaviors (Pizarro & Salovey, 2002). Teacher`s empathy has been defined as "the ability to express concern and adopt the perspective of the student involving cognitive and affective domains of empathy" (Tettegah & Anderson, 2007, p. 50). Empathic teachers were found to possess high moral standards, to communicate successfully with their students, both emotionally and mentally, and to encourage students to forge this kind of relationship with others (Cooper, 2004). These teachers act as moral role models for students, by engaging them in positive interactions. This type of personal interaction helps to increase the quality of teaching and learning, contributes to improved behavior and fosters sharing among students (Tettegah & Andersen, 2007). Empathic teachers were also shown to strengthen students' sense of belonging to their schools, and their relationships with teachers and peers (Cooper, 2010). Thus, teachers` empathy is a required teaching skill promoting a positive learning environment for all students. Moreover, researchers agree that teachers can be trained to be more

empathic (Ming Lam, Kolomitro, & Alamparambil, 2011).

Hen (2010) argued that empathy has many educational-therapeutic qualities and, hence, it is important to nurture and empower its role in the relationships created among the many figures involved in the school framework. Findings of her study showed a positive correlation between levels of self-efficacy in teaching You alternatively use teacher`s self-efficacy, teaching self-efficacy and self-efficacy in teaching. You should be aware of the fact that this may confuse the reader, I suggest you use the same term always) and teachers' empathy, and positive attitudes towards children with special needs incorporated in a mainstream educational framework. Another study that evaluated empathy among teachers, found that an increase in the level of self-efficacy in teaching, was the best predictor of increased levels of empathy among teachers (Yoon, 2002). Finally, Jennings and Greenberg (2009) found that teachers confidence in their ability to recognize emotions and emotional patterns and to generate, regulate and use emotions such as joy and enthusiasm, promotes empathic relationships with others.

1.2 Teachers' Self-efficacy

Self-efficacy is a future-oriented belief concerning the level of competence that a person expects he or she will display in a given situation (Bandura, 1997). Considerable 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). According to Bandura (1986), self-efficacy strongly influences the choices people make, the effort they expend and their perseverance in the face of challenge. Self-efficacy beliefs influence task choice, effort, persistence, resilience and achievement (Britner & Pajares, 2006).

Teachers' self-efficacy beliefs are judgments of their capability to influence desired outcomes related to students' performance, behavior, and motivation in the classroom (Gibbs & Powell, 2011). Teachers` confidence in their individual capability to influence student learning, is considered to be one of the key motivational beliefs influencing professional teachers` behavior and student learning (Klassen, Tze, Betts, & Gordon, 2011). A considerable amount of evidence indicates that teachers' level of self-efficacy is associated with job satisfaction and job related stress (Betoret, 2009), teachers' burnout (Skaalvik & Skaalvik, 2010) and teachers' instructional practices, enthusiasm, commitment, and teaching behavior in class (Skaalvik & Skaalvik, 2007; Somech & Drach-Zahavy, 2000). Teachers' self-efficacy is also related to student outcomes such as students' self-efficacy beliefs and student engagement, motivation, and achievement (Bong, 2008; Eren, 2009).

Studies have identified a variety of external and internal variables contributing to and affecting teachers` self-efficacy (Klassen et al., 2011). External influences included environmental factors (e.g. number of pupils, teaching materials, physical conditions), that place limitations on what teachers can accomplish in class (Ho & Hau, 2004), whereas internal influences refer to teachers` beliefs and perceptions concerning their ability to control and regulate their thoughts and emotions in relation to student learning. Friedman (2003) argued that teachers' confidence in their ability to regulate their relationships with students and colleagues, contributed most to their overall sense of self-efficacy in school. Skaalvik and Skaalvik (2007) found that teachers' self-efficacy levels correlated negatively with time pressures, but correlated positively with feelings of autonomy and relations with parents. Chan (2003, 2004) found that inter-personal intelligence predicts teachers' self-efficacy in helping others. Penrose, Perry and Ball (2007) found a link between emotional intelligence and teachers` self-efficacy. Finally, Jennings and Greenberg (2009) suggested that teachers confidence in their ability to recognize emotions and emotional patterns, will exhibit higher levels of self-efficacy in teaching. Gibbs (2003) argued that teachers' personal sense of control and their beliefs in their capability to control their thinking and feeling, affect their self-efficacy beliefs and actual teaching.

1.3 Emotional Self-efficacy in Teachers

Emotional self-efficacy refers to peoples' judgment regarding their own capacity s to process emotional information accurately and effectively, as a means of self- regulation and managing emotions intelligently (Kirk, Schutte, & Hine, 2008). It combines Bandura's (1986) concept of self-efficacy and Emotional Intelligence theory. People who perceive themselves as possessing a good balance between emotion and thought, specifically, the ability to regulate one's own as well as others' inner feelings and beliefs, in order to provide useful input for consideration and action, score high on this trait. Sutton and Wheatley (2003) suggested that the substantial variation in teachers` self-efficacy could result in part from variance in teachers' emotions. Chan (2004) found that teaching self-efficacy beliefs were significantly predicted by the components of emotional intelligence. Penrose, Perry and Ball (2007) studied teachers and principals in Victoria and found a strong link between emotional intelligence and teachers` self-efficacy. Gender, age and length of teaching experience did not moderate the relationship between the two variables.

Saarni (1999) claimed that emotional self-efficacy is expressed as a feeling of personal efficiency during inter-personal interactions involving emotions. Emotional self-efficacy relates to the perceived ability to use one's own emotional reactions as well as those of others, as coping aids. People with high levels of emotional self-efficacy are typically

largely aware and sensitive to the emotions of others as well as their own. They are open to and accepting of negative emotional experiences and are able to change emotions in an adaptable and flexible manner. High levels of emotional self-efficacy contribute to a sense of satisfaction with life in general, scholastic success, positive beliefs, beliefs in one's social competence and ability to control emotions (Schunk, 2005). Studies indicate that emotional self-efficacy is important for the individual's self-confidence, ability to set challenging goals and perseverance on the way to realize these goals (Saarni, 1999).

Emotional self-efficacy in teachers plays a dual role: on the one hand it enables teachers to integrate and fit into the educational and social system, thus helping them pave their way to professional success, while on the other hand, it enables them to nurture their students by helping them develop high levels of social and emotional competence (Meyer & Turner, 2002; Yoon, 2002).

Based on the above literature, this study aimed to answer two questions: (1) Whether and to what extent does emotional self-efficacy predict empathy and teacher self-efficacy among teachers? (2) Does emotional self-efficacy contribute equally to the explained variance of these two competencies?

2. Method

2.1 Participants and Procedure

The sample included 273 teachers: 67% females and 33% males, mean age - 36 years (SD= 11 years), 79% were married, 18% were single, and the rest were divorced, in a relationship or widowed. 81% of teachers in the sample described themselves as secular, and the rest - as traditional (14%) or religious (5%). 28% of participants have a BA degree, 21% - an MA degree, and the remainder (42%) - a B.Ed. degree. The mean teaching experience in the sample is 12 years (*SD*=11 years). 33% of teachers hold a position of class educator (general studies), 34% are subject specific teachers, 4% teach both a specific subject and general studies, and the rest defined their role as the "other".

The data were collected by research assistants in 10 schools in northern and central Israel. The assistants explained to the teachers that the current study focuses on the attitudes and perceptions of teachers and that participation is voluntary and anonymous. Teachers completed the questionnaire in 20 minutes on average. They were not offered any incentive for participating in the study.

2.2 Measures

2.2.1 Empathy

Empathy was measured by using a multi-dimensional empathy questionnaire (Interpersonal Reactivity Index) of Davis (Davis, 1983). This instrument included 28 statements that measured four dimensions. The items ranked on a 5-point Likert scale (from 1 - *"does not describe me at all"* to 5 - *"describes me well"*). For this study, the questionnaire was adjusted to school situations by incorporating images of teachers and students in the items, for example: "I often see things from the perspective of the student" instead of "…from the perspective of the other" (Hen, 2010). The internal reliability of the Empathy scale was: α=.84 and a general mean score was used.

2.2.2 Emotional Self-efficacy

In the Emotional Self-efficacy (ESE) questionnaire (Kirk et al., 2008), the subjects were asked to assess on a 5-point Likert scale, to what extent each item describes (5) or does not describe (1) him/her. This questionnaire included 32 statements representing four dimensions: understanding emotions (e.g. *"I know what causes to my negative feelings"*), perceiving others' emotions (e.g. *"I am able to recognize other person's negative feelings"*), facilitating emotions (e.g. *"I know how to use positive feelings to produce good ideas"*) and regulating emotions (e.g. *"I am able to change negative feelings to positive ones"*). The internal reliability of the Empathy scale was: α=.83 and a general mean score was used.

2.2.3 Teaching Self-efficacy

Teaching self-efficacy (TSE) was measured by a questionnaire aiming to assess feelings of self-efficacy in teachers (Friedman & Kass, 2002). This instrument included 29 items on a 5-point Likert scale (from 1-*"does not describe me at all"* to 5 - *"describes me well"*), was related to three dimensions: learning tasks (e.g. *"I think that I am able to be very creative in my work with children"*), relationships with students (e.g. *"I think that my way of teaching has an influence on the values and the principles of my pupils"*), communication with the organization (e.g. *"I am an active member in decision making processes at my school"*). The internal reliability of the TSE scale was: α=.89 and a general mean score was used.

2.3 Data Analysis

In order to predict empathy and teaching self-efficacy in teachers by emotional self-efficacy, we first computed Pearson correlations between the research variables and then built a structural equation model using AMOS 18 (Arbuckle, 2009), including the three research variables (ESE, Empathy and TSE) and three control variables (gender, academic degree

and years of teaching experience).

The control variables were entered in order to assess the vulnerability of the regression coefficients to the possibility of spurious associations. In line with previous studies on teachers' empathy and self-efficacy, these included age, gender (1-male), academic degree (1-M.A., 0-B.A. or B.Ed. as a proxy for education) and years of teaching experience (e.g., Castillo, Fernández-Berrocal, & Brackett, 2013; Penrose, Perry, & Ball, 2007; Stojiljković, Djigić, & Zlatković, 2012).

3. Results

The current study aimed to reply on two questions: (1) Whether and to what extent can empathy and teacher self-efficacy can be predicted by emotional self-efficacy? (2) Does emotional self-efficacy contribute equally to the explained variance of these two competencies?

Pearson correlations between the variables show that all the three research variables are significantly and positively intercorrelated and that the strength of correlations between them ranges from .38 to .56. In addition, the gender and academic degree are not correlated with the research variables, while years of teaching experience has weak positive correlation with them (See Table 1).

The analysis of the structural model that predicts empathy and teaching self-efficacy by emotional self-efficacy reveals that, controlling for gender, academic degree and years of teaching experience, emotional self-efficacy positively predicts both empathy (β=.55; p<.001) and teaching self-efficacy (β=.51; p<.001), and explains 30% and 31% of their variation, respectively. This means that teachers who report higher levels of emotional self-efficacy, also report higher levels of empathy and teacher self-efficacy. Comparison of the values of regression coefficients of emotional self-efficacy on empathy and teacher self-efficacy (.55 vs. .51, respectively), show that the independent variable contributes equally to the explanation of the variation in dependent variables.

4. Discussion

Following the compelling evidence accumulated over the past three decades revealing the relationship between teachers' beliefs concerning their capability to influence students' motivation and achievement, and important processes and outcomes in school (Technan-Moran & Woolfolk Hoy, 2007), the present study investigated the relationship between emotional self-efficacy, teachers` self-efficacy and teachers` empathy. It examined the extent to which emotional self-efficacy (Kirk et al., 2008), predicts empathy and teaching self-efficacy among teachers in Israel. Based on the literature (Jennings & Greenberg, 2009) it was assumed that teachers' confidence in their ability to manage their emotional states (emotional self-efficacy), predicts both teachers' self-efficacy and empathy in teachers.

Findings indicated that emotional self-efficacy predicts empathy and teaching self-efficacy among teachers. These findings coincided with other findings that examined the relationship between emotional and multiple intelligence and teachers' self-efficacy (Chan, 2003, 2004; Penrose et al., 2007; Sutton & Wheatley, 2003).

Our findings also coincided with those of two studies that examined the relationship between emotional intelligence and empathy among nurses and school counselors (Constantine & Gainor, 2001; Skinner & Spurgeon, 2005), and other studies that suggested emotional self-efficacy as a crucial aspect for the self-confidence that enables the individual to set challenging goals and to persevere in the realization of these goals (Saarni, 1999). However, none of these studies examined the relationship of these variables together. Interestingly, the findings of the present study combine two very important but different aspects of teachers' emotional functioning – namely, feelings concerning their own teaching abilities and their self-stated ability to understand the feelings and emotions of others (empathy), thus creating a single powerful construct that predicts them both.

These are preliminary findings and should be further examined. However, they may contribute to the growing body of literature concerning the importance of teachers' beliefs and self-regulatory abilities in promoting students` motivation (Thoonen, Sleegers, Peetsma, & Oort, 2011) and effective teaching (Bumbarty, 2007). Teachers' emotions and emotional abilities have been the focus of social-emotional learning (SEL) theories (Elias, 2009) and pedagogical content knowledge (PCK) theories that examine the intersection between pedagogical content knowledge and emotional knowledge, and their contribution to the emotional ecology in class (Zembaylas, 2007).

Although the size of the sample of the present study was adequate, the fact that teachers` self-efficacy, empathy and emotional self-efficacy were evaluated only by self-reported measurements, limits the significance of the findings. Future research should address these limitations, and qualitative instruments (Klassen et al., 2011) should be employed to learn more and promote our understanding of the relationships and effects of these concepts on teachers' professional lives. In addition future studies should explore training strategies to enhance emotional self-efficacy in teachers.

Further research should also focus on all aspects of these constructs, and study them carefully. Nevertheless the current findings can contribute to our understanding of teachers' emotions and emotional abilities that must be developed in order

to improve our school systems, and overall teaching milieu (Betoret, 2009; Cooper, 2004; Jennings & Greenberg, 2009; Sutton & Wheatly, 2003).

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Table 1. Pearson correlations between control and research variables

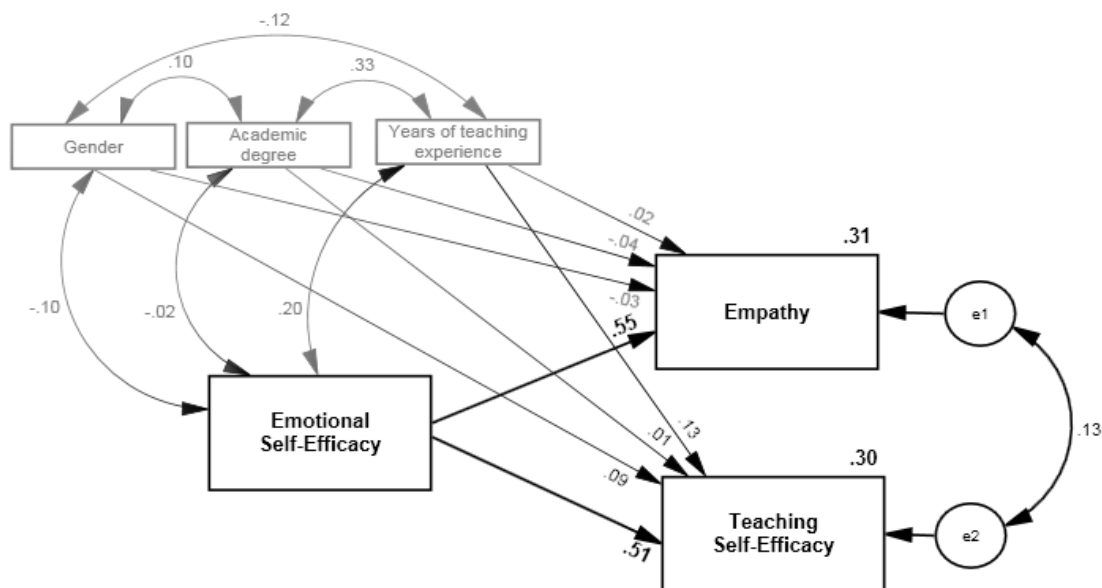|	M	SD	1	2	3	4	5
1 Gender (1-male)	0.33	0.47	--				
2 Academic degree (1-MA)	0.23	0.42	.11	--			
3 Years of teaching experience	11.57	10.19	-.12[*]	.30[*]	--		
4 Emotional SE	3.53	.48	-.10	-.01	.21[*]	--	
5 Empathy	3.80	.43	-.09	-.05	.23[*]	.56[***]	--
6 Teaching SE	3.75	.55	.03	.06	.24[*]	.53[***]	.38[***]

Note: SE=self-efficacy
*p<.05; ***p<.001

Figure 1. Structural equation model for the prediction of empathy and teacher self-efficacy by emotional self-efficacy