The Role of Social-emotional Competencies and Social Teaching Practices on Students’ Emotions: The Mediation Role of Teachers’ Emotions

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Abstract
The present study aimed to evaluate a new model of students' emotions in which the role of teachers' social-emotional competencies, social teaching practices, and their emotions was considered. To this aim, 303 six-grade students (150 females and 153 males) and their teachers were selected as the participants from Yazd in 2018. Then, the students were asked to answer a questionnaire on the students’ emotion, whether positive or negative, and the teachers completed two questionnaires on social-emotional competencies, social teaching practices, and their emotion. Structural equation modeling was used to analyze the data. The results indicated that teachers who had social-emotional competencies and the ability to complement their social teaching practices could experience more positive emotion and interactions with their students. In addition, their students experienced positive classroom atmosphere, which stimulated the students' motivation. Finally, it was concluded the teachers' social-emotional teaching competency has an indirect effect on the students' emotion via the teachers' positive emotions.

Keywords: School teacher, emotional aspects, teaching, emotion

Introduction
Emotions are at the heart of teaching (Hargreaves, 1998). Schutz and Lanehart (2002) argued that “emotions are surely involved in virtually every aspect of the teaching and learning process and, therefore, an understanding of the nature of emotions within the school context is essential” (p. 67). Students spend a significant amount of time in the classroom an interactive setting which is full of emotions. Emotions are important outcomes and they are an integral part of personal well-being (e.g., Pekrun, Goetz, Titz, & Perry, 2002) and also predict important learning and career related outcomes. Pekrun (2006) identified the emotions of learning and academic achievement and introduced them as achievement emotions. These emotions are social in nature and occur in social situations.

Pekrun (2000) divided the students’ achievement emotions into positive and negative categories. Positive emotions are pleasure, pride, hope and tranquility while negative emotions are related to anger, anxiety, shame, frustration and fatigue that students demonstrate in learning, classroom, and exam context. Theoretically, both kinds of achievement emotions may be experienced in academic activities or thinking about the successes and failures of themselves or others. Emotions have been categorized in different ways which could be summarized into dichotomous, multiple, and dimensional categories. The dichotomous classification of teacher emotions into positive and negative is common in the literature (Torquati & Raffaelli, 2004). Positive emotions generally include joy, satisfaction, pride and excitement while negative emotions encompass anger, frustration, anxiety, and sadness (Hargreaves, 1998; Kristjansson, 2007; Sutton & Wheatley, 2003). Reviews of the qualitative literature on the teaching context revealed that enjoyment can be considered as
the most salient positive emotion while anger proves to be the most prominent negative emotion for teachers as documented in qualitative and narrative research on teachers’ emotions (Frenzel, 2014; Sutton & Wheatley, 2003).

In their control-value theory of emotions, Pekrun, Elliot, and Maier (2009) proposed that learning environments can pave the way for changing the emotional patterns experienced by the students. Classroom learning, social environments, and more broadly, social-historical context, along with their impact on value-based evaluations, can play a significant role in affecting the students’ achievement emotions (Pekrun, Elliot, & Maier, 2009). For example, Pekrun et al. (2002) reported that the students demonstrate more positive emotions when they perceive that their teachers and parents support their autonomy and competencies, and they have realistic expectations and values toward them (Pekrun, Goetz, Titz, & Perry, 2002). It is clear that a student's formal learning context is largely shaped by the student’s teacher (Eccles & Roser, 1999). Thus, teachers must strengthen their social and emotional skills in order to model and encourage positive student interactions. The definition of social and emotional competence developed by Collaborative for Academic, Social, and Emotional Learning (2008) involve five major emotional, cognitive, and behavioral competencies: self-awareness, social awareness, responsible decision making, self-management, and relationship management (Zins et al., 2004). GTL Center identified 10 teaching practices that promote social, emotional, and academic skills. These ten practices can further be divided into two types of teaching approaches: those that focus on social teaching practices and those that focus on instructional teaching practices. The present study focused on four social teaching practices, including student-centered discipline, teacher language, responsibility, choice, warmth and support.

Considering the above-mentioned studies, in the present study, it was hypothesized that teachers' social-emotional competencies (TSEC) and their social teaching practices (STP) can be related to their emotions and the teacher's emotions are associated with social-emotional competencies and teaching practices, which play a significant role in enhancing the students’ achievement emotions. Some believed that the quality of education is associated with teachers’ emotions (Frenzel, 2014; Hagenaver & Volt, 2014). In the present study, it was also proposed that TSEC and STP have an indirect effect on students' emotions via the teachers’ emotion. In other words, teachers need social-emotional competencies in order to increase positive emotions and regulate negative emotions, which are essential to establish effective relationships with students and control stressful situations, which may occur in the classroom (Brackett & Rivers, 2013).

Moreover, social-emotional competence is considered as a critical factor that is the target of universal preventive interventions which are conducted in schools because the construct (a) is associated with social, behavioral, and academic outcomes which play a role in enhancing healthy development; (b) forecast the important life outcomes in adulthood; (c) can be promoted with feasible and cost-effective interventions; and (d) plays a critical role in developing the behavior change process (Domitrovich, Durlak, Staley, & Weissberg, 2017). In addition, teachers’ social–emotional competencies are important for developing a positive learning environment among the students. Such an assumption has been confirmed by some studies. During the last decade, Jennings and Greenberg (2009) suggested that socially and emotionally competent teachers play the role of establishing strong and supportive relationships between teachers and students.

In another study, Hargreaves (2001) found that teachers encompass weak emotional regulation, as well as the students with more negative emotions. According to Brackett and Rivers (2009), there are some positive interactions between teachers' dominance in social-emotional competencies and STP with students, and the students have more pleasurable emotions in this respect. Elias (2009), in another study, believed that teachers who feel confident about their emotional competencies can recognize the students’ emotions and their role in the students’ behavior. Besides, these teachers can respond to the students’ needs and install trust and respect more effectively (Jennings & Greenberg, 2009).

Furthermore, the results of some studies provided support regarding the relationship between teachers' emotions and students' achievement emotions. For example, Sutton and Wheatley (2003) indicated that students are aware of their teachers' emotions, which can influence the students' achievement emotions. Furthermore, Gross and John (2003) emphasized that students are well-aware of discovering their teachers’ emotions and the role of these emotions. In another study, Thomas and Montgomery (1998) interviewed the students at the elementary school and revealed that the teachers' yelling and their negative emotions can damage their achievement emotions. Further, the teachers' and students' emotions in class are closely related to each other. Thus, the emotions which the teachers bring to the classroom play a pivotal role on
their students' emotions (Evers, Tomic, & Brouwers, 2004). In addition, they indicated that teachers can influence the students' emotions at the lessons-to-lesson level. According to Chen and Lindo (2018) considering teachers’ ability to provide children with emotional support and understanding children's unique needs may improve challenging behaviors in the classroom. In the context of study, there is a lack of knowledge about association between teachers' social-emotional competencies, social teaching practices, and their emotions. Regarding the important role of achievement emotions in students' life, classroom and family, the present study aimed to design and examine a proposed model, based on the existing theoretical and empirical evidence to predict the students' achievement emotions (Fig 1).

Figure 1.
Hypothesized research model

**Abbreviations:** TSEC, Teacher's Social-Emotional Competencies; STP, Social Teaching Practice; TPE, Teacher's Positive Emotion; TNE, Teacher's Negative Emotion; SNE, Student's Positive Emotion; SNE, Student's Negative Emotion

In fact, it was sought to demonstrate that TSEC, STP, along with teachers' emotions, are important predictors of students' emotions. Based on the above objectives, three hypotheses were raised as follows:

**H1:** The TSEC plays a significant role in the teachers' and students' negative and positive emotions.

**H2:** STPs can influence the teachers' and students' positive and negative emotions.

**H3:** TSEC and STP have an indirect effect on students' emotions via the teachers' emotions.

**Method**

This is a cross sectional study that was conducted in Yazd, Iran, in 2018.

**Participants**

The sample consisted of 320 sixth-grade primary students and their teachers. Boys (160) and girls (160) were roughly equally represented in the sample. The Students' emotions' questionnaire was completed by the students in the class under the supervision of their class teachers and Teachers' emotions, Teachers' social-emotional competencies, and Social Teaching Practices were completed by the teachers. Finally, 303 students (150 females and 153 males) were selected after removing incomplete responses.
**Instruments**

**Students' emotions Questionnaire**

Pekrun’s Emotions Questionnaire—Elementary school (AEQ=E) (Pekrun, Frenzel, Goetz, & Perry, 2007) was used to evaluate the students’ enjoyment, anxiety, and boredom pertaining to three types of academic setting including attending class, doing homework, and taking tests and exams. The 24 scales of the instrument tap into nine different emotions occurring in three different academic achievement settings. The response scale was 1 (never) to 5 (always). Items were averaged to form a scale score. The internal consistency for subscales assessing positive and negative emotions in Pekrun’s study were .75 to .95, respectively, based on Cronbach’s alpha (Pekrun, 2007). In the present study, the alpha coefficient was .82 for positive emotions and .93 for negative emotions.

**Teachers' emotions Scale**

Teachers Emotions Scales (TES) (Frenzel et al., 2016) was utilized for assessing the teachers’ emotions. It includes four-item scales for three emotions considered most relevant in the context of teaching: enjoyment, anger, and anxiety. The 1-5 Likert scale questionnaire was used to measure three emotions considered most relevant in the context of teaching: enjoyment, anger, and anxiety. A sample item is “I generally enjoy teaching.” The internal consistency for subscales assessing positive and negative emotions was .82 and .78, respectively (Frenzel, 2016). In the present study, the alpha coefficient was .82 and .85.

**Teachers' social- emotional competencies**

Teachers' social-emotional competencies were assessed with items adapted from social-emotional competencies subscales of A Tool for Teachers (AIR, 2014). A sample item is "I am consistent in implementing classroom rules and consequences." Responses were made on a five-point scale from 1 (never) to 5 (always). The internal consistency for subscales assessing STPs was .83.

**Procedure**

This is a non-experimental and correlational study. Our participants includes students of sixth grade in primary schools and their teachers. After getting permission from Yazd department of education, 10 schools (5 boy school and 5 girl school) were selected by random cluster sampling. Questionnaire were distributed between the participants randomly considering ethical considerations.

The present study sought to predict and analyze a set of relationships between the existing variables in the path diagram by using the structural equation modeling and designing a hypothetical model based on theoretical foundations and the findings of previous studies. Thus, structural equation modeling (with SPSS AMOS 22) was used for analyzing the related data.

**Findings**

The results of within-subject correlation analyses indicated that the students’ positive emotions were significantly related to the teachers' negative emotions ($p < .05$). In addition, the teachers’ positive emotions were related to TSEC and STP ($p < .001$) (Table 1).

**Table 1**

*Pearson correlation coefficients among the variables*

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**Correlation is significant at the .01 level (2-tailed)**

**Correlation is significant at the .05 level (2-tailed)**

**Abbreviations:** TSEC (Teacher's Social-Emotional Competencies), STP (Social Teaching Practice), TPE (Teacher's Positive Emotion), TNE (Teacher's Negative Emotion), SNE (Student's Positive Emotion), SNE (Student's Negative Emotion)

Based on the results of the structural equation modelling, the proposed model could not generate a saturated model fit (Fig. 2).
According to the path coefficients derived from the output of AMOS, three insignificant paths from the teachers' negative emotions to students' positive and negative emotions, and from STPs to teachers' positive emotions, should be removed due to irrelevance and weak standardized loads. In other words, teachers' negative emotions failed to play any significant effect on students' positive and negative emotions; in addition STPs failed to play any significant effect on teachers' positive emotions. Therevised structural model (Fig. 3) achieved an acceptable fit: $\chi^2 = 221.896; \frac{\chi^2}{df} = 44.37; CFI=.92; RMSEA=0.067.$
Figure 3 illustrates the measurement of the research model. Based on the results, three hypotheses included in the revised model were supported. Regarding the first hypothesis, the TSEC had a positive effect on teachers’ positive emotions ($\beta = .37; p < .01$), teachers’ negative emotions ($\beta = .16; p < .05$), students’ positive emotions ($\beta = .11; p < .05$), and a negative effect on the students’ negative emotions ($\beta = -.21; p < .01$). As far as the second hypothesis is concerned, STPs could positively influence the students’ positive emotions ($\beta = .41; p < .01$), and negatively influence on the students’ negative emotions ($\beta = -.55; p < .01$), and teachers’ negative emotions ($\beta = -.23; p < .01$). In order to evaluate the effect of the teachers’ emotions on the students’ emotions, the results showed that the teachers’ positive emotions had a positive effect on the students’ positive emotions ($\beta = .21; p < .01$), and the teachers’ negative emotions failed to have a considerable effect on the students’ emotions. Based on third hypothesis and regarding the indirect effects of AMOS, only TSECs mediated by the teachers’ positive emotions could indirectly affect the students’ positive emotions ($\beta = .075; p < .05$), and the students’ negative emotions ($\beta = -.054; p < .05$).

Finally, the results of research model indicated that predictive variables explained the 25% of the variance related to the teachers’ positive emotions and 5% of the variance related to the teachers’ negative emotions. Further, the research variables could explain 35% and 22% of the variance related to positive and negative emotions, respectively.

**Discussion and Conclusion**

The present study aimed to evaluate a model on the teachers’ positive and negative emotions as a mediator of TSEC, STP, and the students’ positive and negative emotions. As it was expected, teachers who experienced high level of SEC were more capable at developing supportive relationship with the students, creating the activities and helping the students to develop the basic social and emotional skills necessary to participate in the classrooms (Hypothesis 1). In this study, TSEC was regarded as an important contributor to development of supportive teacher-student relationships. A teacher who recognizes the students’ individual emotions, understanding the cognitive appraisals which may be associated with these emotions and how these cognitions and emotions motivate the students’ behavior can respond to the students’ individual needs effectively. Another important finding is related to the role of STP on teachers’ emotions and students’ outcomes (Hypothesis 2). Higher STP among teachers is likely to demonstrate more effective classroom management. They are likely to be more proactive, skillfully use their emotional expressions and verbal support to promote enthusiasm, enjoy learning, and guide and manage the students’ behaviors. In addition, STP supports more effective classroom management by understanding the dynamics of classroom conflict situations. A teacher who identifies students’ emotions individually can understand the cognitive appraisals which may be associated with these emotions. Further, how these cognitions and emotions motivate the students’ behavior can effectively respond to the students’ individual needs. Thus, according to Pekrun’s control-value theory, academic achievement can be improved when the students’ positive emotions are activated. The degree to which a student feels connected and valued in the learning environment might influence the manner and degree to which the students use their cognitive and learning expressions, leading to potential academic growth (Moore & Lippman, 2006). According to Pekrun (2014), teachers can support social communication in educational engagements such as classroom interconnections through improving the quality of education, expectations and values related to high-level progress. Furthermore, the support from teachers and parents after failure, and autonomy against controlling learning can affect their emotions in teaching and accordingly enhance the students’ emotions.

Based on the results of the present study, TSEC via TPE had indirect effects on SNE and SPE. Thus, the result indicated that only TSEC mediated by teachers’ positive emotions could indirectly affect SPE/SNE. Therefore in order to support the third hypothesis, only TPE play the mediation role. The results also support that the students’ emotions are significantly related to the teachers’ emotions (Hypothesis 3), which are consistent with the results of the previous studies. For example, Zembylas conceptualized emotions in teaching by using a primary teacher case study in the United States. The study revealed that the teachers’ emotional rules in teaching are historically contingent and the teachers’ emotions are influenced by social power relations and values of social culture (Zembylas, 2005). Cross and Hong (2012) examined the teachers’ emotions by using two primary teachers in the United States. Based on their results, teachers mostly gained positive emotions from the students and experienced unpleasant emotions with different students. In addition, the teachers’ emotions tend to be influenced by their own psychological biographies (pedagogical beliefs and identity) and school conditions (curriculum policy and professional development) (Cross & Hong, 2012). The teacher’s emotion was examined using eight Portuguese
primary and secondary teachers. The most common positive emotions were related to joy, enthusiasm, zest, and satisfaction associated with the engagement with students (Bahia, Freire, Amaral, & Teresa Estrela, 2013).

However, negative emotions are related to the teacher’s personal growth. Yin and Lee (2012) identified that teachers’ emotions are socially constructed and regulated by social norms and regulations intimately related to the professional and ethical beliefs on teaching profession such as committing to teaching with passion, hiding negative emotions, maintaining positive emotions, and instrumentalizing emotions to achieve teaching goals (Yin & Lee, 2012). In the present study, the teachers reported their experience on pleasant or unpleasant emotions through interactions with the students. In line with the study results of Cross and Hong (2009), the teachers in this study were more likely to experience emotions with their students at the classroom level. Teachers’ emotions play a crucial role in students’ learning and teacher-student relationships (Hamre & Pianta, 2005; Turner, Meyer, & Schweinle, 2003).

Furthermore, Hargreaves (1998) claimed that effective teaching charges with positive emotions and good teachers display their passion during teaching, which, in turn, attracts their students. Similarly, according to Frenzel, Goetz, Stephens, and Jacob (2009), recurring teachers’ positive emotions are associated with flexible and creative teaching strategies which stimulate the students’ motivation while recurring the teachers’ negative emotions results in damaging such flexibility and creativity, which, in turn, influence the students’ learning outcomes. For example, negative emotions such as anger and boredom, which are frequently reported by teachers, are found to reduce teachers’ intrinsic motivation and increase students’ negative emotional experiences (Sutton & Wheatley, 2003). As it was emphasized in the model that teachers' emotions can play a crucial role in predicting students' emotions, it was acknowledged that based on the mechanism of emotional disturbance, emotions are apparently transmitted automatically from one person to another.

According to Neuman and Strack (2000), when people listen to someone who reads the text of a speech, the voice of that person (happy, neutral, sad) can affect the mood of the listeners. On the other hand, this finding can be justified on the basis of the theory of mutual excitement. According to this theory, people attract others’ psychological states with whom they are associated. Therefore, regarding these two theories, any emotion that the teacher demonstrates in teaching and classroom abilities can be transferred to the students. The findings of this study can confirm this claim. Obviously, the present study documents the "power of emotions" in academic contexts, which is especially important to identity possible sources of emotional experience in the classroom. In the field of removing three insignificant paths, from teachers' negative emotions to students' positive and negative emotions, and from STPs to teachers' positive emotions, it can be concluded that maybe there is a significant positive correlation between TSEC and STP, as well as between TNE and TPE, leading to a decrease in the role of some of these variables in explaining the dependent variables in this study.

The findings of the present study indicated that teachers' STPs explain incremental variance in students' emotions above and beyond the teachers' emotions. Thus, teachers need to acknowledge the power of their emotions and they should be informed that teaching involves more than just social-emotional competences. In addition, the emotions brought to the classroom by the teachers play a significant role on their students' emotions. Many teachers spend a considerable amount of time preparing their lessons and sometimes they forget about their own well-being, which is evident by the high burnout rates frequently reported in the teaching profession (Bakker, Demerouti, Taris, Schaufeli, & Schreurs, 2003; Chang, 2009; Evers, Tomic, & Brouwers, 2004). The present study also indicated that teachers' competencies and their ability to complement their STP are associated with teachers' emotion and their emotions can influence students' emotions. Higher SEC and STP among teachers are likely to demonstrate more effective classroom management. Thus, the teachers’ emotions play a major role which should not be disregarded in daily and often busy teaching profession.

Finally, teachers should care about their emotions due to their students' and their own sake. The results of this study can be helpful for school psychologists because it is important for them to know that planning for the training of social-emotional competencies can properly help them to deal with crises, resolve conflict, improve communication skills and increase the mental health of the younger generation, especially teachers. Designing programs for teacher training can potentially benefit the various dimensions of social-emotional competencies and help them to be more flexible in their stressful life and protect themselves from mental illness. Thus, increasing these abilities in schools will make schools a desirable and safe environment for learning. In addition, teachers' emotions can play significant role in teaching process because, according to Bandura's theory, the
physiological-emotional responses of a person is one of the sources of self-efficacy. A teacher, who has self-efficacy, has the ability to control his physiological-emotional responses so he/she can confront with negative emotional outbursts in his/her classroom. It is suggested that school psychologists have pay more attention to these social-emotional competencies among teachers during their relationship with the students. It is important that emotion should be considered in predicting both social and academic outcomes. The Promotion of teachers’ social skills can be useful because it should give them tools and strategies to build their own social and emotional competence. Therefore, they can recognize a student’s emotions individually, identify the cognitive appraisals, which may be related to these emotions, and how these cognitions and emotions motivate the student’s behavior can effectively respond to the student’s individual needs.

Although the results of this study offer practical guidelines for teachers and students, there are some drawbacks which should be addressed. The present study only examined the role of teachers’ social-emotional competencies. Learning social-emotional competencies and activities have their own special emotional competencies. Learning social emotional efficacies, has the ability to control his physiological outcomes. The Promotion of teachers' social skills can be considered in predicting both social and academic outcomes. The Promotion of teachers' social skills can be useful because it should give them tools and strategies to build their own social and emotional competence. Therefore, they can recognize a student’s emotions individually, identify the cognitive appraisals, which may be related to these emotions, and how these cognitions and emotions motivate the student’s behavior can effectively respond to the student’s individual needs.

Although the results of this study offer practical guidelines for teachers and students, there are some drawbacks which should be addressed. The present study only examined the role of teachers’ social-emotional competencies. Learning social-emotional competencies and activities have their own special effects and consequences which can be regarded as the subject of future research. It is worth noting that other researchers can address a broader range of discrete emotions for teachers. In the present study, three highly relevant and frequent emotions experienced by the emotions experience were taken into consideration. Thus, other emotions experienced by teachers such as compassion, pride and disappointment can be regarded for further studies.

References


