Exploring the Relation between Teacher Candidates’ Emotional Intelligence and their Educational Practices: A Case Study in Greece

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Abstract: Classroom management is a difficult task for teacher candidates and a significant barrier to being an effective teacher. The aim of this study was twofold: a) to examine the relation between student teachers’ emotional intelligence and their educational practices and b) whether emotional intelligence significantly predicted classroom management. The instruments used for data collection were TEIQue, a self-report questionnaire that measures trait emotional intelligence, and TEP-Q, a self-report questionnaire assessing three dimensions of classroom management: communication, organization, relationship. The sample of the study was comprised of third year undergraduate student teachers in the Department of Pedagogy and Primary Education at the National and Kapodistrian University of Athens, who had their first experience with teaching practice at primary schools. Descriptive statistics and correlational models showed that there is a statistically significant correlation between the factors. In fact, student teachers’ emotional intelligence predicted classroom management. Research results have pedagogical implications, while the impact of the research on practice and policy highlights the urge of social and emotional interventions during teachers’ both initial and ongoing education as well as the need to promote an educational design that embraces the goals of social and emotional learning at schools.

Keywords: classroom management; educational practices; emotional intelligence; primary school; teacher candidates.

1. Introduction

In our time, the teacher's work is considered both important and demanding. Teaching is a highly challenging, emotional, and stressful job, because of the extensive and multidimensional roles teachers undertake and the high demands deriving from the profession (e.g., facilitators, inspirers, exemplars, missionaries, moralists, referees, reformers, leaders, judges, reducers of anxiety, etc.) (Miyagamwala, 2015). According to research, over 40 percent of teachers decide to leave their work within five years and one of the main reasons is because they are facing difficulties in classroom management (Organization for Economic Cooperation and Development [OECD], 2015; Räsänen et al., 2020). And if the big challenge for 2021 was to get children back into the classroom because of COVID-19, the challenge for 2022 is to keep teachers there.

The role of teachers is to support students to acquire academic knowledge and enhance their learning by organizing the environment in an effective way. Nevertheless, teachers also need to promote a positive, supportive, and friendly classroom climate through good interactions between students and teachers and among students. Hence, there is one skill so important that without it neither the teaching plans nor the teaching strategies will ever succeed. This is teachers’ ability to effectively manage their classroom (Whitaker, 2020).

Several studies on teachers’ emotional intelligence have already showed that Emotional Intelligence (EI) is important for a good classroom climate (Maamari & Majdalani, 2019; Tsoli, 2015), students’ higher academic achievement (Sánchez-Álvarez et al., 2020), teacher engagement (Abiodullah et al., 2020), satisfaction with work (Li et al., 2018) and reducing burn-out (Kant & Shanker, 2021). Moreover, teachers’ EI affects their self-efficacy (Kostić-Bobanović, 2020) and their teaching practices (Go et al., 2020; Kaur et al., 2019).

Our study aimed at investigating the possible relation between Greek pre-service teachers’ EI and their educational practices, as well as the predictive role of EI on their classroom management efficacy. Therefore, the following research questions were posed:

RQ1. Is there any statistically significant correlation between trait Emotional Intelligence and classroom management of Greek student teachers?

RQ2. Is there any statistically significant correlation among trait Emotional Intelligence and classroom management factors of Greek student teachers?
RQ3. Does student teachers’ Emotional Intelligence significantly predict classroom management?

2. Literature Review

2.1. Emotional Intelligence

Although EI has a relatively short history, since it goes through the fourth decade of life, however it has a long past, dating back to the early 20th century. In 1920, Edward Thorndike defined social intelligence as the ability to empathize with others and act wisely in human relationships. In 1983, Howard Gardner introduced eight different types of intelligences, two of them, inter- and intra-personal intelligences constituting EI. The term ‘Emotional Intelligence’ was coined in 1990 by two researchers, Peter Salovey and John Mayer who defined EI is ‘a subset of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s own thinking and actions’ (Caruso, et al., 2019). EI was later popularized by Daniel Goleman in his 1995 book. In the year 1997, Bar-On coined the term Emotional Quotient (EQ) for his measure through the questionnaire he constructed (Goleman, 2020).

In the literature, there are two conceptually distinct approaches and a clean-cut conceptual distinction between ability EI and trait EI. According to ability EI models, EI should be viewed as a type of intelligence that has common elements with cognitive intelligence (Mayer et al., 2004). Respectively, trait EI models (otherwise called trait emotional self-efficacy) define EI as a constellation of emotional perceptions that overlap with basic personality traits (Petrides & Mavroveli, 2020). Moreover, Daniel Goleman’s model, which is called mixed model, describes EI as not inborn talents, but rather learned capabilities that are related to intelligence and emotion, and are also connected to other personality characters and traits. The ability model is proposed by Mayer, Salovey, & Caruso, the trait model is represented by Petrides & Furnham (2001), and the mixed model is represented by Goleman and Bar-On. Accordingly, the measures differ according to the approach. Ability EI is assessed with performance-based tests, while self-report questionnaires measure trait EI. In the first case, stimuli or problems are provided to individuals through which their maximal level of knowledge and aptitude is estimated and in the second case, the questionnaires measure the way individuals behave, their beliefs, and the thoughts and feelings they have for themselves (Pool & Qualter, 2018).
2.2. Classroom management

There are many definitions of classroom management in the literature that shed light to different aspects of the teaching profession. For example, Emmer & Sabornie (2015) emphasize the acceptable behavior of students in the classroom, as a result of ongoing teachers’ endeavors. Evertson & Weinstein (2006) associate classroom management with students’ academic and social-emotional learning in a supportive and facilitative environment. Marzano (2019) emphasizes teacher-student relationship and states that an equal combination of dominance and cooperation levels and an awareness of student needs, can lead to positive classroom dynamics. Classroom management assumes actions regarding a supportive and safe learning environment that leads to successful instruction (e.g., arrangement of the physical environment of the classroom, establishment of rules and procedures, enabling intrinsic motivation and interest in academic activities) (Whitaker, 2020). A critical approach to these definitions shows that classroom management covers many areas, such as student behavior and discipline, that reflect the narrow view of the concept and relationships, academic achievement, social-emotional learning, physical and social environment, rules and student attention and engagement, that reflect a wider view of classroom management. Other aspects of classroom management concern planning, incentives active methodologies, skilfully managed transitions, student participation.

Catalano et al. (2022) concluded that the years of teaching experience are an important factor that differentiate teachers’ classroom management practices. Expert teachers have a greater repertoire of classroom skills and manage in a more effective way the dynamic nature of the classroom setting. Novice teachers, on the other side, seem to be more hesitant and lack speed and fluidity. Nevertheless, their research has confirmed a strong relation between teachers’ beliefs and self-efficacy with classroom management. Self-efficacy refers to a person’s belief that he/she is able to perform a task. It affects his/her feelings, thoughts, motivation and behavior and it strengthens personal well-being. Teachers with high levels of self-efficacy tend to apply new teaching methods, plan their lessons, and organize the environment, set challenging goals, show higher levels of adjustment and problem-solving skills, and reach out for help and support, when needed (Lazarides & Warner, 2020).

The importance of teacher reflection on their own practices is deduced from the above. Pre-service teachers, as well, are expected to become reflective practitioners, which allows them to scrutinize their
teaching skills, connect theory and practice and better understand the undertaken decisions (Babalis & Tsoli, 2017; Cavanagh, 2021).

2.3. The relation between EI and Classroom management: empirical approaches

Many studies have attempted to investigate the interplay between EI and classroom management among in-service teachers of various subjects (Petsos & Gorozidis, 2019), kindergarten teachers (Agbaria, 2021), primary school teachers (Karun, 2018), college teachers (Jafari et al., 2015), resulting in statistically significant relationships between the two factors. Teachers’ ability to understand and communicate naturally their emotions is of great significance for quality teacher-student interactions. Moreover, teachers’ social intelligence seems to correlate with key classroom discipline strategies, such as discussion, involvement, reward, and punishment. However, the results of Llego’s study (2017) on a sample of science STE teachers did not confirm the above findings.

In Greece, a few studies have investigated the relation between teachers’ EI and classroom management. For example, Thomaidou (2020) used a mixed model in a sample of 15 teachers, according to which emotional intelligence was measured, with the Mayer-Salovey-Caruso self-report tool and the teachers' reaction or not to various situations during teaching was expressed through vignettes. The results showed that teachers' behavior is influenced by their emotional intelligence during teaching practice. Tsarouha (2017) conducted research on a sample of 307 Greek teachers measuring their level of emotional intelligence in relation to their capability to manage their classroom and to combat burnout. The results confirmed the correlations between teachers’ emotional intelligence, self-efficacy, and classroom management. It seems that high level emotionally intelligent teachers implement new teaching techniques and strategies and adopt effective teaching styles. Regarding pre-service teachers, studies have examined whether an intervention program related to social and emotional skills may improve students’ Emotional Intelligence (Kyriazopoulou & Pappa, 2021), their level of EI and the differences related to demographic data (e.g., gender, age) (Malli, 2021).

Conclusively further research to shed light on the relation between pre-service teachers’ EI and classroom management practices is important.
3. Methodology

3.1. Participants

The participants were one hundred and forty-seven (N=147) third year undergraduate student teachers studying at the Department of Pedagogy and Primary Education of the National and Kapodistrian University of Athens, in Greece, who enrolled in the Teaching Practice course. Thus, during the academic year 2021-2022 they had their first experience with teaching practice at primary schools. During the Winter Semester they were observing classes and afterwards reflective discussions were taking place with mentors and at the Spring Semester they were teaching 6 hours per week the classes they had observed at the same school. From the total, 132 were female (89,80%) and 15 (10,20%) were men. Their age ranged from 20 years old (51, or 34,69%) to 21 years old (73, or 49,65%), while 15 (10,20%) were older (from 23 to 55 years old). All of them had attended at least one course either elective or mandatory whose content partly covered the topic of emotional intelligence and the topic of teaching methodology.

3.2. Instruments

This study used two data collection tools; one is the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF), constructed by Petrides (2009), who developed the items of the questionnaire based on Trait EI theory. The Short Form of the instrument includes two of the 15 distinct facets of the full form and is consisted of 30 items that evaluate global trait Emotional Intelligence, as well as four trait EI factors: Well-Being, Self-Control, Emotionality, and Sociability. The Well-Being factor (6 items) reflects a generalized sense of well-being. High-score individuals feel joyful, pleased, and satisfied with their life, while low-score feel disappointed at their present life. The Self-Control factor (6 items) essentially reflects a powerful lever of accomplishment and achievement both psychologically and externally. High-score individuals tend to control their impulses, urges, and desires and to regulate external pressures and stress, while low-score individuals face difficulties in managing stress and impulsive behavior. The Emotionality factor (8 items) reflects a generalized sense of comfort within the emotional world. High-score individuals can perceive and express emotions, are in touch with their and others’ feelings and develop close relationships with important others, while low-score individuals are facing difficulty in recognizing their internal emotional states and expressing their feelings to others. The Sociability factor (6 items) reflects an overall content
with social skills. High-score individuals are better at social interaction, good listeners, and confident communicators, while low-score individuals are less likely to be good communicators and networkers. Petrides’ university laboratory website provides information on scoring the instrument (e.g., global trait EI was calculated by adding up items 3, 14, 18, and 29). The participants responded to a 7-point-Likert scale, ranging from 1 (completely disagree) to 7 (completely agree). Petrides, Pita & Kokkinaki (2007) have translated TEIQue in Greek, therefore the participants of our study completed the Greek version of the TEIQue-SF. The factors of TEIQue-SF reached acceptable values of internal consistency (above $\alpha=70$).

Classroom management was assessed through the Teachers’ Educational Practices Questionnaire (TEP-Q; Catalano et al., 2014), the second tool of this study. TEP-Q is a 36-item self-report questionnaire composed of three dimensions of classroom management: Communication, Organization and Relationship. Communication (16 items) measures two factors: a) effectiveness: teacher’s skill to attract and maintain the attention of his/her students and to engage them in the learning process, and b) self-regulation: teacher’s skill to manage his/her communication skills. In general, communication takes place in two dimensions, verbal and nonverbal. Organization (12 items) measures also two factors: a) active methodologies: use of active, experiential, and participatory teaching methods (e.g., group works, role-play), and b) care on activities: teacher’s coordinating, supporting and encouraging role during the implementation of classroom activities. In general, Organization refers to the way a classroom is structured be the teacher to facilitate learning and teaching. Relationship (8 items) measures one factor, the attention to relationship, i.e., teacher’s skill to promote emotions expression, show comfort and reinforce students’ prosocial behavior. In general, Relationship refers to the strategies (implicit and explicit) used by teachers to promote students’ social and emotional learning. The instrument included a 6-point Likert scale, ranging from 0 = never to 5 = always. The factors of TEP-Q reached acceptable values of internal consistency (above $\alpha=70$).

The last section of the questionnaire administered to student teachers collected background – demographic information (e.g., gender, age).

3.3. Procedure

The questionnaires were delivered to student teachers during a course in April 2022 lasting about 20-25 minutes. Researchers explained the purpose of the study and provided all necessary information. Apart from the
questionnaires a cover letter was also distributed to student teachers, which defined the conventional ethical and deontological procedures. Conditions to protect the participants’ privacy were fully granted, since they were given a consent form which explained that the participation in research was confidential, anonymous and voluntary.

3.4. Data Analytic Strategy

The present study used Pearson’s correlation tests, to measure the correlation between student teachers’ Emotional Intelligence and their classroom management approaches. Moreover, standard multiple regression analysis was used for measuring the predictive levels of Emotional Intelligence on the three dimensions of classroom management. The statistical analyses were performed using SPSS version 26. No missing data were recorded, all were valid since all student teachers completed the questionnaires in full.

4. Results

Table 1 summarizes the correlation among TEI-Que Global Trait EI and factors (Well-Being, Self-Control, Emotionality and Sociability) and TEP-Q principal axis factors (Communication, Relationships and Organization). The results of correlation revealed that there is a significant correlation between: A. Well-Being and (1) Communication ($r=0.24$, $p<0.01$), (2) Relationships ($r=0.16$, $p<0.05$), and (3) Organization ($r=0.21$, $p<0.01$), B. Emotionality and Relationships ($r=0.23$, $p<0.01$) and C. Sociability and (1) Communication ($r=0.16$, $p<0.05$) and (2) Relationships ($r=0.16$, $p<0.05$). It was also found that there is a statistically significant relationship between Greek student teachers’ Global Trait EI and the three principal axis factors which compose the Teachers’ Educational Practices: Communication ($r=0.18$, $p<0.05$), Relationships ($r=0.20$, $p<0.05$) and Organization ($r=0.16$, $p<0.05$).

Table 1. Correlation among TEI-Que factors and TEP-Q principal axis factors

<table>
<thead>
<tr>
<th></th>
<th>Communication</th>
<th>Relationships</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well-Being</td>
<td>.24**</td>
<td>.16*</td>
<td>.21**</td>
</tr>
<tr>
<td>Self-Control</td>
<td>.07</td>
<td>.04</td>
<td>.08</td>
</tr>
<tr>
<td>Emotionality</td>
<td>.04</td>
<td>.23**</td>
<td>.08</td>
</tr>
<tr>
<td>Sociability</td>
<td>.16*</td>
<td>.16*</td>
<td>.08</td>
</tr>
<tr>
<td>Global Trait EI</td>
<td>.18*</td>
<td>.20*</td>
<td>.16*</td>
</tr>
</tbody>
</table>

* $p<.05$, ** $p<.01$, *** $p<.001$
Table 2 summarizes the correlation among TEI-Que factors (Well-Being, Self-Control, Emotionality and Sociability) and TEP-Q factors [(Effectiveness and Self-Regulation (Communication), Attention to Relationships (Relationships) and Active Methodologies and care on Activities (Organization)]. The results of correlation revealed that there is a significant correlation between: A. Well-Being and (1) Effectiveness \(r=0.25, p<0.01\), (2) Attention to Relationships \(r=0.16, p<0.05\), and (3) Active Methodologies \(r=0.23, p<0.01\), B. Self-Control and Effectiveness \(r=0.17, p<0.05\), C. Emotionality and (1) Effectiveness \(r=0.22, p<0.01\) and (2) Attention to Relationships \(r=0.23, p<0.01\) and D. Sociability and (1) Effectiveness \(r=0.17, p<0.05\) and (2) Attention to Relationships \(r=0.16, p<0.05\). Global Trait EI was found to have a statistically significant correlation with two TEP-Q factors; effectiveness \(r=0.28, p<0.001\) and attention to relationships \(r=0.20, p<0.05\).

Table 2. Correlation among TEI-Que and TEP-Q factors

<table>
<thead>
<tr>
<th></th>
<th>Effectiveness</th>
<th>Self-Regulation</th>
<th>Attention to Relationships</th>
<th>Active Methodologies</th>
<th>Care on Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well-Being</td>
<td>.25**</td>
<td>.15</td>
<td>.16*</td>
<td>.23**</td>
<td>.13</td>
</tr>
<tr>
<td>Self-Control</td>
<td>.17*</td>
<td>-.00</td>
<td>.04</td>
<td>.09</td>
<td>.04</td>
</tr>
<tr>
<td>Emotionality</td>
<td>.22**</td>
<td>-.05</td>
<td>.23**</td>
<td>.05</td>
<td>.11</td>
</tr>
<tr>
<td>Sociability</td>
<td>.17*</td>
<td>.10</td>
<td>.16*</td>
<td>.06</td>
<td>.09</td>
</tr>
<tr>
<td>Global Trait</td>
<td>.28***</td>
<td>.07</td>
<td>.20*</td>
<td>.15</td>
<td>.13</td>
</tr>
</tbody>
</table>

* p<.05,  ** p<.01,  *** p<.001

To investigate the third research question, i.e., whether student teachers’ Emotional Intelligence significantly predicted classroom management, a regression analysis was run. Well-Being was found to be a good predictor of Communication (Table 3) and Organization (Table 5), and Emotionality was found to be a good predictor of Relationships (Table 4).

Table 3. Standard Multiple Regression Analysis on TEP-Q principal factor ‘Communication’ based on TEI-Que Factors

<table>
<thead>
<tr>
<th>Communication</th>
<th>(R^2 = .07, df/4,140, F = 2.442, p &lt; .05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variables</td>
<td>B</td>
</tr>
<tr>
<td>Well-Being</td>
<td>.132</td>
</tr>
<tr>
<td>Self-Control</td>
<td>-.046</td>
</tr>
<tr>
<td>Emotionality</td>
<td>-.025</td>
</tr>
<tr>
<td>Sociability</td>
<td>.045</td>
</tr>
</tbody>
</table>

* p<.05
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Table 4. Standard Multiple Regression Analysis on TEP-Q principal factor ‘Relationships’ based on TEI-Que Factors

<table>
<thead>
<tr>
<th>Relationships</th>
<th>((R^2 = .08, \ df = 4,140, F = 2.917, p &lt; .05))</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B) (\text{SE}\ \text{B}) (\hat{\beta}) (t)</td>
<td>Well-Being (.071) (.065) (.113) (1.098)</td>
</tr>
</tbody>
</table>

* \(p<.05\)

Table 5. Standard Multiple Regression Analysis on TEP-Q principal factor ‘Organization’ based on TEI-Que Factors

<table>
<thead>
<tr>
<th>Organization</th>
<th>((R^2 = .05, \ df = 4,140, F = 1.715, \text{ns}))</th>
</tr>
</thead>
<tbody>
<tr>
<td>(B) (\text{SE}\ \text{B}) (\hat{\beta}) (t)</td>
<td>Well-Being (.146) (.065) (.233) (2.240^*)</td>
</tr>
</tbody>
</table>

* \(p<.05\)

5. Discussion and Limits

The first research question of this study was to investigate if there is any relationship between Greek student teachers’ EI and their Classroom Management (RQ 1). The results of the study confirmed that there is a significant positive relationship between the two concepts, both in factor and global levels, indicating that in general student teachers with high levels of EI are likely to be more effective in classroom management. In fact, Global Trait EI seems to correlate with the three principal axis factors of Classroom Management, according to TEP-Q: Communication, Relationship and Organization. This means that emotionally intelligent student teachers can manage their classes positively. This result is consistent with previous theoretical and empirical studies (Valente et al., 2019). In factor level, Well-Being was correlated with all principal axis factors, Emotionality with Relationships and Sociability with Communication and Relationships. It is found that the frequency of contacts with others and the quality of these relationships can have positive and/or negative influences on teachers’ well-being (Viac & Fraser, 2013). Marzano (2019) conducted a meta-analysis including more than 100 studies and found that teachers with quality student-teacher relationships were more effective in classroom
management than teachers who did not have quality relationships with students.

Regarding RQ2, statistical analysis showed that Effectiveness (one factor of Communication) correlates with Global Trait EI and all TEI-Que factors, a finding that corresponds with the results of other research as well (Siddique et al., 2020). Attention to Relationships correlates with Global Trait EI and all TEI-Que factors except from Self-Control. Active Methodologies (e.g. brainstorming, collaborative writing, cooperative learning, Project-Based Learning (PBL), peer teaching) correlate with Well-Being.

Regarding RQ3, in our study student teachers’ Emotional Intelligence significantly predicted Classroom Management. More specifically, Well-Being was found to be good predictor of Communication and Organization, while Emotionality was found to be good predictor of Relationships. Other studies, as well, confirmed that Emotional Intelligence predicts teachers’ Classroom Management abilities (Ngui & Lay, 2020).

The present study does have some significant limitations. First, the sample of this study consisted of future primary school teachers, thus the conclusions cannot be generalized to university students who study another subject. Second, the instruments used for data collection were self-reporting questionnaires, that can result in bias, because of social desirability. Future further research could be addressed to a larger sample and perhaps analyze the existence of possible differences regarding age, gender, level of education, years of experience, etc.

6. Conclusions

The findings of the study suggest that Emotional Intelligence and Classroom Management correlate with each other, which means that the more emotionally intelligent teachers are, the more effectively they can manage their students’ behavior issues and build warm and positive relationships with them. When student teachers feel positive and happy, they make more effective use of all dimensions of communication, they give contents, keep attention, promote pupils’ involvement, use active methodologies, promote students’ socio-emotional competences, and pay more attention to interactions. In addition, when student teachers control their impulses and stress, they communicate more effectively, keep attention in the class and promote students’ involvement. Moreover, when student teachers recognize their internal emotional states, express their feelings to others and have high levels of social skills and Global Trait EI, they support student engagement and promote prosocial behavior. Finally, effectiveness,
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self-regulation, active methodologies, and care on activities can be predicted by Well-Being, while Relationships can be predicted by Emotionality.

Acknowledgment

This paper was presented at the 8th edition of the ENSEC Conference on the topic Social Emotional Learning and Positive Development held at Suceava, Romania, between 30th of June to 3rd of July 2022.

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