Emotional Intelligence and Self-efficacy of Pre-service Teachers

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ABSTRACT
In an era of technological innovations which had ushered in a range of occupations and when the states are grappling with a shortage of quality teachers, is there something that motivates individuals to join the teaching profession? Limited career opportunities, high demands of teaching, and low pay deter new recruits from joining the teaching profession. The objective of the present study is to find the relationship between pre-service teachers’ emotional intelligence and their perceptions of self-efficacy. The study randomly selected 103 student teachers who have enrolled in the two-year Bachelor of Education program. Data collected using questionnaires were analysed by employing Pearson product-moment correlation to examine the correlation between the variables. Results of the study revealed that there exists a statistically significant positive correlation between pre-service teachers’ emotional intelligence and their perceptions of self-efficacy. The results of the study might help researchers, teacher educators, and curriculum designers of teacher education to focus on aspects that might enhance their emotional intelligence and self-efficacy, which will help young recruits in the teaching profession to excel in their profession as well as governments and institutions to retain the teachers in the profession.

KEYWORDS
Pre-service teachers, emotional intelligence, self-efficacy, motivation

1. Introduction
Teachers are nation builders. They can shape the lives of children and can make a change in society. John Adams argued that the reconstruction of a nation is impossible without the constructive involvement of the teacher. According to Gandhian philosophy, education aims at making a good human being. In fact, education fosters enlightenment and empowers the individual for a quality and fruitful life. The policy documents on education in independent India reiterated the importance of teachers for building a generation of intelligent and informed individuals who can actively participate in nation-building. Kothari Commission Report (1964-66) has rightly stated that the “quality, competence and character” of teachers are the pillars for quality education which will contribute to nation-building. National Education Policy 2020 reminds us that our nation requires teachers with the highest standards for education and training. To have a better and brighter nation, we require a quality teacher education system. Though teaching is regarded as a noble profession and is valued, many countries, including the Organisation for Economic Cooperation and Development countries, face the problem of insufficiency in new recruits, retaining quality teachers, and the problem of attrition (OECD, 2004). Our governments fail to attract talented young minds to the field of education.

Attracting and retaining quality teachers is vital for the teaching profession. Studies suggest that the reason for varied quality and levels of preservice teachers may be attributed to motivation constructs, including motivational goals, self-efficacy, self-concept, and their engagement in the pre-service teacher education programs (Martin & Dowson, 2009).
2. Literature Review

Limited career opportunities, high demands of teaching, and low pay deter new recruits from joining the teaching profession. Difficulty in attracting new recruits remains a challenge and a potential reason for teacher shortages (OECD, 2005). A report on new recruits (Kyriacou & Kunc, 2007) states that in England, 40 percent of student teachers never actually join as teachers, and from those who join the profession, another 40 percent leave the job within the first five years, and the corresponding percentage is 30 in the case of Australia. Though teaching is regarded as a “demanding and stressful profession” (Stoeber & Rennert, 2008), there are studies that revealed that those individuals who have gained skills and are educationally prepared for the teaching profession continued to serve as teachers (Darling-Hammond, 2010). How can new recruits to the teaching profession develop as “quality” teachers? Sinclair C (2008) argues that motivation is one term that attracts young minds to teaching and teacher education. Bakar, A. R. et al. (2014) found that altruistic factors, which include their motive to influence the next generation, are the most dominant factor that influences an individual to choose teaching as a profession. He arrived at this conclusion by conducting a survey of 600 student teachers in Malaysia. On the other hand, Struyven, Jacobs, and Dochy (2013) argued that a balance between altruistic, intrinsic, and extrinsic motives is significant for a student teacher to remain in the profession. In a study conducted on 259 student teachers in Sweden, Bergmark et al. (2018) found that there exists a relationship between the perception of the teaching profession and individuals’ motives for selecting this profession. Intrinsic, extrinsic, and altruistic motives help student teachers in the selection of their careers. He proposes that a combination of recruitment strategies rather than focusing only on initial pay will help in attracting individuals to the profession.

The preservice teachers’ motivations, efficacy, and beliefs also influence their retention in this field. On the contrary, policymakers and employers fail to notice preservice teachers’ emotions, beliefs, and efficacy. In this context, it can be argued that pre-service teachers’ emotional intelligence and self-efficacy may impact their professional development and quality in teaching. The study by Dejene et al. (2018) found that teachers join the teacher education program with traditional beliefs about teaching and learning. It was also found that their view of teaching and learning is mainly based on their past educational experiences.

Locke and Latham (2004) argued that “motivation is one of the factors that sustain human behaviour.” It is also suggested that individuals’ interests, abilities, and opinions of family and friends help them in selecting their profession. The expectancy-Value theory proposed by Wigfield & Eccles (2000) suggested that individuals’ expectancies and their values help them in shaping their choices and behaviours. A study on “perceptions, profiles and aspirations” of 510 Australian pre-service teachers conducted by Watt and Richardson (2008) revealed that the new entrants in the field of education are either “highly engaged persisters” or “highly engaged switchers” or “low engaged desisters”. His results showed that teachers in Australia were not intrinsically motivated. Using a survey method on 211 student teachers in Australia, Sinclair, C (2008) found that student teachers are driven by “intrinsic motivation” rather than “extrinsic motivation.”

E L Thorndike (1920) was the first person to identify the term “social intelligence”, and further emotional intelligence evolved from this concept. According to Thorndike, social intelligence is the “capacity to understand and cope with men and women, boys and girls, and to behave wisely in human relations”. Though emotional intelligence was envisioned by Salovey and Mayer (1990), it was popularised outside academia by Daniel Goleman (Matthews et al., 2002). Theories on emotional intelligence were derived from “intelligence” and “emotions”, and understanding and defining both terms remained difficult. The concept “intelligence” encompasses various behaviours, including “information processing, experiential learning, adaptation to the environment, patterns of thinking and reasoning (Matthews et al., 2002). On the other hand, emotions involve “intricate patterns of human behaviour including behavioural and psychological components” (Barrett and Salovey, 2002).

The three theories that have greatly contributed to emotional intelligence were proposed by Reuven Bar-On, Daniel Goleman, John Mayer, Peter Salovey, and the team. Reuven Bar-On regarded emotional intelligence as a “combination of traits and capabilities” (2005). Goleman viewed it as something that has evolved by “blending skills and competencies of an individual” (1998), and Mayer and Salovey (1997), emotional intelligence represents an ability of a person.

As Hawkey (2006) suggested, teacher education needs to address “emotion” in education in more explicit ways than is currently the case. In summary, a consideration of emotion has been traditionally neglected in the context of teaching and teacher education. Recent research on Emotional Intelligence has begun to address this gap. Teachers experiencing more positive emotions may generate more and better teaching ideas; they may also develop “broad-minded coping” skills (Frederickson, 2001), which can help them solve problems.

Self-efficacy is grounded in the theoretical framework of social cognitive theory emphasizing the evolvement and exercise of human agency. Self-efficacy is defined as “People’s judgments of their capabilities to organize and execute courses of action required to attain the designated type of performance” (Bandura, 1986). It states that people can exercise some influence over what they do (Bandura, 2006). Bandura (2006) maintains that in this conception, people are self-organizing, proactive, self-regulating, and self-reflecting. From this perspective, self-efficacy affects one’s goals and behaviours and is influenced by one’s
actions and conditions in the environment (Schunk 1989). Efficacy beliefs determine how environmental opportunities and impediments are perceived (Bandura, 2006) and affect the choice of activities, how much effort is expended on an activity, and how long people will persevere when confronting obstacles (Pajares, 2002).

Teacher efficacy is defined as a set of teacher beliefs that the teacher possesses, which shows that he/she is able to achieve the intended learning outcomes in all students in all diverse situations (Morgan et al., 2001). Bandura (1997) argues that a teacher’s self-efficacy has a pivotal role in creating a conducive educational environment where the children grow cognitively. Teacher education programmes need to be revamped to instill confidence among teachers where they develop belief in themselves. Student teachers can be better equipped to teach and understand their behaviours through effective teacher education courses.

Since self-efficacy is related to one’s motivation, it may influence one’s career choices (Betz & Hackett, 1981). In order to become efficient in the teaching profession, teachers’ perception of their own efficacy is as important as qualifying in the pre-service teacher education course. Successful teacher education programs should enhance student teachers’ beliefs in themselves. Baysal, Z N et al. (2010) found that there exists a relationship between preservice teachers’ self-efficacy levels in teaching thinking skills and their “self-awarded analytical, practical, creative and critical thinking scores.” A study conducted by Bilkir (2014) to find the relation between preservice elementary teachers’ motivations to become a teacher and their teaching self-efficacy in 341 pre-service teachers from all disciplines, including math and science and social science in Turkey, revealed that “making a social contribution, shaping future of children and enhancing social equity” were the most important motives for the pre-service teachers. It was also found that the intrinsic motives of teachers, including their ability and intrinsic career value, are correlated to their teaching self-efficacy. The study found that teachers with high intrinsic motives possess high self-efficacy. Bandura (1997) states that “high self-efficacy leads individuals to engage in tasks that foster the development of skills and capabilities.” It suggests that teachers with high self-efficacy will engage in the profession in a better way to gain knowledge, skills, and competence in order to be successful in their profession.

Specifically, teacher self-efficacy has been related to a variety of student outcomes that include achievement (Ashton & Webb, 1986; Ross, 1994), motivation (Midgley, Feldlaufer, & Eccles, 1989), and student’s own sense of efficacy (Anderson, Greene, & Loewen, 1988). Further, it is related to varied classroom behaviours of teachers, which might affect the teacher’s effort in teaching and his/her persistence and resilience in the face of difficulties with students (Gibson & Dembo, 1984; Meijer & Foster, 1988; Soodak & Podell, 1993).

It can be concluded that teachers’ emotional intelligence and their perceptions of self-efficacy are important constructs that shape their careers and will positively help in nation-building.

3. Methodology

3.1. Objectives of the study

Though we find studies investigating pre-service teachers’ emotional intelligence and self-efficacy, it would be interesting to study the relation between secondary-level pre-service teachers’ emotional intelligence and their perceptions of self-efficacy. The study also examines whether gender, educational qualifications, or the disciplines they have chosen have any influence on their emotional intelligence and self-efficacy.

The following are the objectives of the study:

- To study the relation between pre-service teachers’ emotional intelligence and their perceptions of self-efficacy.
- To investigate whether pre-service teachers’ gender and qualifications have any effect on their emotional intelligence.
- To investigate whether pre-service teachers’ gender and their qualifications have any effect on their perceptions of self-efficacy.

The following are the research questions formulated for this study:

1. Is there a relation between pre-service teachers’ emotional intelligence and their perceptions of self-efficacy?
2. Is gender and educational qualifications an influencing factor in pre-service teachers’ emotional intelligence and their perceptions of self-efficacy?

3.2. Population and sample

The population of the study includes all pre-service teachers who have enrolled in the two-year Bachelor of Education program at Osmania University. Due to practical constraints of time, budget, and geographic dispersion of the colleges under the university, a small group of pre-service teachers was selected as the sample. The sample consisted of 103 pre-service teachers randomly selected from St Ann’s College of Education and St Mary’s College of Education, both situated at Secunderabad and affiliated with Osmania University. The selected students include 99 women and four men students, which shows that the student teachers are
predominantly women. They have opted for pedagogies of teaching science, arts, and the humanities. The participants are admitted to a two-year Bachelor of Education (B Ed) programme for the academic year 2022-24.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
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</thead>
<tbody>
<tr>
<td>Valid  Female</td>
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<td>96.1</td>
<td>96.1</td>
<td>96.1</td>
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<tr>
<td>Male</td>
<td>4</td>
<td>3.9</td>
<td>3.9</td>
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<tr>
<td>Total</td>
<td>103</td>
<td>100.0</td>
<td>100.0</td>
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</tr>
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</table>

3.3. Data collection instruments
Pre-service teachers’ perceptions of self-efficacy were measured using The Teachers’ Sense of Efficacy Scale (Ohio State Teacher Efficacy Scale – OSTES). It includes 12 items that measure student’s efficacy in student management, efficacy in instructional strategies, and efficacy in classroom management. Each item is measured on a 9-point scale with 1-nothing and 9- a great deal. The scale attempts to capture the diverse nature of pre-service teachers’ self-efficacy beliefs in brief, which is neither too specific nor too general. The total reliability of the instrument was calculated using Cronbach’s alpha and found to be 0.88.

The Emotional Intelligence was measured using The Emotional Intelligence Scale (EIS) developed by Schutte and colleagues based on Salovey and Mayer’s (1990) model of Emotional Intelligence. This scale has 33 items that evaluate the expressions of emotions of themselves and others, how effective they are in handling emotions, and how best they can use emotions in solving problems. The scale uses a five-point Likert scale where 1- indicates strongly disagree and 5- represents strongly agree. The reliability of the test ranges from 0.87 to 0.90 using Cronbach’s alpha.

The participants are initially informed of the purpose of the study and assured that the data will remain confidential and will be used only for the purpose of the study. The participant’s response sheets were coded numerically to maintain confidentiality.

3.4 Data collection and analysis
To investigate the relationship between pre-service teachers’ emotional intelligence and their perceptions of self-efficacy, a correlation between emotional intelligence and self-efficacy was found. To test the normality of variables, the Shapiro-Wilk test was employed, and the results showed that both variables are normally distributed. A scatter plot is created to test whether there is a linear relation between two variables and found to be true. Therefore, Pearson product-moment correlation coefficient (r) was used to measure the relation between preservice teacher’s emotional intelligence and their perceptions of self-efficacy.

To study whether gender and educational qualifications have any influence on emotional intelligence and perceptions of self-efficacy, an independent t-test was conducted.

4. Results and Discussion
To investigate whether there were any significant gender differences in pre-service teachers’ emotional intelligence and their perceptions of self-efficacy, the following null hypotheses are formulated.

Ho: There exists no significant positive correlation between gender and pre-service teachers’ emotional intelligence.

Ho: There exists no significant positive correlation between gender and pre-service teachers’ perceptions of self-efficacy.

An independent t-test was conducted to test the hypotheses. The results showed that there were no significant differences between male and female preservice teachers with respect to emotional intelligence and self-efficacy.

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
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<tbody>
<tr>
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<tr>
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</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Qualification</td>
</tr>
<tr>
<td>Pedagogy</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
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</table>
The results showed that gender has no influence on the pre-service teachers’ emotional intelligence and their perceptions of self-efficacy.

To investigate whether pre-service teachers’ entry-level qualifications have any influence on their emotional intelligence and their perceptions of self-efficacy, the following null hypotheses are formulated.

Ho: There exists no significant positive correlation between pre-service teachers’ emotional intelligence and their qualifications.

Ho: There exists no significant positive correlation between pre-service teachers’ perceptions of self-efficacy and their qualifications.

An independent t-test was conducted to test the null hypotheses. The results showed that there were no significant differences between undergraduate and postgraduate preservice teachers with respect to emotional intelligence and self-efficacy.

### 4.1 The relation between pre-service teachers’ emotional intelligence and self-efficacy
To examine the relation between pre-service teachers’ emotional intelligence and their perceptions of self-efficacy, the following null hypothesis is formulated.

H₀: There exists no significant positive correlation between pre-service teachers’ emotional intelligence and their perceptions of self-efficacy.

Pearson product-moment correlation was employed to test the null hypothesis.

### Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
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<tbody>
<tr>
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<td>92.00</td>
<td>68.00</td>
<td>160.00</td>
<td>130.8932</td>
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<tr>
<td>Valid N (listwise)</td>
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<td></td>
<td></td>
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</table>

### Correlation between Emotional Intelligence and Self-efficacy

<table>
<thead>
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<th></th>
<th>Emotional Intelligence</th>
<th>Self-Efficacy</th>
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<tbody>
<tr>
<td>Emotional Intelligence</td>
<td>Pearson Correlation</td>
<td>.634**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
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<tr>
<td>N</td>
<td>103</td>
<td>103</td>
</tr>
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<td>Self-Efficacy</td>
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<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>103</td>
<td>103</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

The results show a moderate positive correlation between emotional intelligence and self-efficacy of pre-service teachers (r = 0.634, n = 103, p = 0.000), which is statistically significant.

The results corroborate the findings of Gurol et al. (2010) that there exists a statistically significant positive correlation between perceived emotional intelligence and self-efficacy of pre-service teachers. The results also agree with the findings of Chan (2004), Martin et al. (2004), Gencer and Cakiroglu (2007), and Hopkins and Bilimoria (2008), which state that gender has no influence on...
the emotional intelligence of pre-service teachers. On the other hand, the results are contrary to the findings of Harrod and Scheer (2005), which found that female student teachers possess a higher level of emotional intelligence compared to male student teachers.

5. Conclusion
The present study provides an understanding of the emotional intelligence and self-efficacy of aspiring secondary-level teachers. From this study, it is found that there exists a statistically significant positive correlation between their emotional intelligence and perceptions of self-efficacy. The results of the study might help researchers, teacher educators, and curriculum designers of teacher education to focus on aspects that can enhance their emotional intelligence and self-efficacy, which will help young recruits in the teaching profession to excel in their profession as well as governments and institutions to retain the teachers in the profession. The study also revealed that gender has no influence on the emotional intelligence and self-efficacy of pre-service teachers. It suggests that both male and female teachers can be equally successful in their teaching. Since there exists a statistically significant positive correlation between emotional intelligence and self-efficacy, it can be implied that the development and enhancement of one of these constructs may lead to the development and enhancement of the other. Therefore, teacher education programmes might consider these factors as important for teachers. The study predominantly focused on female secondary-level pre-service teachers. So, its generalizability to other contexts is limited. The sample size is another limitation. The scope of the study is delimited to “secondary-level student teachers”. Further studies could include qualitative studies, including interviews and can be extended to beginning and experienced teachers.

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References
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