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Pre-service teachers' emotional intelligence and motivations for choosing a teaching career in Finland

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ABSTRACT

Emotional intelligence (EI) and the motivations behind choosing a teaching career are recognized as important factors in teacher education research. In this study, we aimed to explore the EI profiles of students at the beginning of their initial teacher education and the associations of EI profiles with these students' motivations for choosing teaching as a career. We collected data from eight universities across Finland (N = 953) and used the Self-Rated Emotional Intelligence Scale (SREIS) and the Factors Influencing Teaching Choice scale (FIT-Choice). To identify EI profiles, we first performed a latent profile analysis (LPA). Next, to explore the relationships between EI profiles and various motivations for selecting a teaching career, we used the three-step and Lanza method. Four distinct EI profiles were identified from the LPA analysis and the results showed that students with high EI chose a teaching career based on social utility values.

1. Introduction

Emotions constitute an integral and valuable part of teaching (Hargreaves, 1998). Since teaching is an emotionally loaded occupation, teachers experience various emotions daily (Frenzel et al., 2015). Being a teacher requires high emotional intelligence (EI) to deal with situations arising in the school environment in socially acceptable ways. EI is particularly important for not only pupils' but also teachers' practices and well-being (Yin et al., 2013). An emotionally intelligent teacher can identify their own and their pupils' emotions, understand the triggers of these emotions, and appropriately express and manage them to achieve the best possible outcome in each situation (Mayer & Cobb, 2000). Thus, high EI is essential for the teaching profession, especially due to its connection to prosocial behaviour (Lopes et al., 2005; Martin-Raugh et al., 2016; Wang et al., 2021), which refers to any behaviour that is favourable to others and promotes social harmony (Eisenberg et al., 2006). Teachers' EI levels have been associated with many important elements, such as teaching effectiveness and burnout prevention (Yin et al., 2013). For this reason, EI is considered a basic requirement for teacher education (Palomera et al., 2008).

Nevertheless, EI in teacher education and the motivations for selecting a teaching career, which are essential for understanding pre-service teachers' career choices (Watt & Richardson, 2007), remain underexplored. Moreover, little is known about the relationship between EI and motivation. Therefore, in this study, we aimed to explore the EI profiles of pre-service teachers at the beginning of their studies in teacher education programmes in Finland. Following Salovey and Mayer (1990) theoretical framework of EI as an ability, we aimed to delve deeper into the construct of EI by examining four branches of pre-service teachers' EI. Moreover, we examined the relationship between pre-service teachers' EI profiles and their motivations for choosing a teaching career.

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1.1. Emotional intelligence

According to the EI framework, EI is the ability to identify, understand, express, use, and manage one's own and others' emotions (Salovey & Mayer, 1990). According to Mayer and Cobb (2000), an emotionally intelligent individual is 'a well-adjusted, genuine, warm, persistent, and optimistic person' (p. 166). The model developed by Salovey and Mayer (1990) includes four hierarchical abilities or 'branches': a) perceiving emotions, b) facilitating thought using emotions, c) understanding emotions, and d) managing emotions. Perceiving emotions is the ability to accurately identify one's own and others' emotions by attending to and paying attention to facial, visual, or vocal cues that convey emotions (Mayer et al., 1999; Papadogiannis et al., 2009). Facilitating thought using emotions is the ability to process emotions in thought. This includes analysing emotional information, which leads to reasoning, problem-solving, and decision-making. Understanding emotions is the ability to comprehend various emotions and how they manifest at different times and in different contexts (Rivers et al., 2007). Managing emotions is the ability to regulate one's own and others' emotions. For example, it enables an individual to sustain emotional calmness in stressful situations to be able to solve problems. By developing these four abilities: perceiving emotions, using emotions, understanding emotions, and managing emotions, individuals can attain more advanced and complex EI (Rivers et al., 2012).

EI across education levels has been widely discussed, but it is particularly important for teacher education, which formally introduces pedagogical learning and shapes professional identities (Turner & Stough, 2020). Its importance is also evident in the way in which it supports in-service teachers' resilience. Teachers with high EI levels are more likely to be satisfied with their profession than those with lower EI. Also, they tend to be more effective in teaching and managing classrooms, are less likely to experience burnout, and have better overall well-being (Colomeischi, 2015; Mérida-López & Extremera, 2017; Pozo-Rico & Sandoval, 2019; Yin et al., 2013). Competencies central to teaching, such as emotional awareness, emotional management and emotional communication are closely related to EI (O'Connor et al., 2019).

1.2. Choosing teaching as a career and expectancy–value theory

There are plenty of reasons why people choose a teaching career (Richter et al., 2021). Early studies on motivations for choosing teaching as a career have found *intrinsic*, *extrinsic*, and *altruistic motivations* as the central influencing factors for choosing a teaching career (Brookhart & Freeman, 1992). Intrinsic motivation refers to the pure enjoyment of doing something due to a personal interest. Extrinsic motivation refers to performing a task to achieve a desired outcome (Wigfield & Eccles, 2000). Altruistic motivation refers to service-oriented motivations for choosing a teaching career, such as the desire to help and support children – in other words, social utility values (Fray & Gore, 2018; Watt & Richardson, 2007). Despite efforts to define intrinsic, extrinsic, and altruistic motivations, there is still a lack of consensus on their definitions with regard to choosing a teaching career. Nevertheless, recent studies show that teachers with intrinsic and altruistic motivations have better professional competencies (Ballová Mikušková et al., 2024). Furthermore, prospective teachers who choose teaching as a career for intrinsic and altruistic reasons may be more enthusiastic and more likely to stay committed to the profession (Abonyi et al., 2021).

The Factors Influencing Teaching Choice (FIT-Choice) framework explores the motivations for selecting teaching as a career. It is grounded on expectancy–value theory (Wigfield & Eccles, 2000) and has been cross-culturally validated (Watt et al., 2014). Expectancy-value theorists 'argue that individuals' choices, persistence, and performance can be explained by their beliefs about how well they will do on the activity and the extent to which they value the activity' (Wigfield & Eccles, 2000, p.68). According to this framework, the motivations for choosing a teaching career include perceived teaching abilities, intrinsic value, job security, time for family, shaping the future of children/adolescents, promoting social equity, contributing to society, working with children/adolescents, selecting teaching as a fallback career, prior teaching and learning experiences, and social influences.

According to expectancy-value theory, shaping the future of children/adolescents, promoting social equity, contributing to society, and working with children/adolescents are motivations that fall under

the category of social utility values. In the teacher education literature, these social utility values are associated with altruism (Watt et al., 2014). Altruism is an important factor in choosing a profession because it is associated with selflessness and a sense of alignment with one's values and emotions. Motivations related to seeking job security and prioritizing time for family are categorized as personal utility values. Such values are important for choosing a profession and overall wellbeing. Intrinsic value is strongly associated with the intrinsic motivation that drives individuals to become teachers, as it reflects the genuine interest and enjoyment that individuals experience when engaging in teaching activities. The motivations stemming from social influences and prior teaching and learning experiences are categorized as the socialisation influences while perceived teaching abilities are described as individuals' self-perceptions regarding their own abilities and skills to work effectively as a teacher. Lastly, the concept of a fallback career refers to individuals who choose the teaching profession as a second option (Richardson & Watt, 2006; Watt & Richardson, 2007). This concept refers to individuals who pursue the teaching profession not as their primary ambition, but rather as a secondary option. This may happen when people are unable to follow their first-choice careers, due to several reasons. Consequently, they might turn to teaching as a stable, accessible, and rewarding alternative, even if it wasn't their initial goal.

1.3. Associations between emotional intelligence and motivations for choosing a teaching career

Research on the importance of EI for teachers has increased in recent years (Palomera et al., 2008; Pozo-Rico & Sandoval, 2019), especially with regard to teacher education, which shapes the professional identities of future teachers (Turner & Stough, 2020). Teachers with high EI can navigate their professional paths with more agility and less occupational burnout (Mérida-López & Extremera, 2017). EI is a crucial competence even before one starts to practise the profession. It is also important to explore teachers' motivations, as they are associated with their psychological well-being (Skaalvik & Skaalvik, 2018). However, research on the associations between EI and the motivations for selecting teaching as a profession has been scarce, with only two seminal studies examining it (Ivanec, 2020; Ivanec & Defar, 2023). Ivanec's (2020) study included 423 primary education pre-service teachers from all study years. Their results showed that higher EI was associated with higher scores on all motivation factors, suggesting a link between pre-service teachers' EI and their motivation to pursue a teaching career throughout teacher education. In addition, Ivanec and Defar (2023) study included 591 preschool and primary education pre-service teachers to examine the predictive value of EI, among other factors, for three high-order factors concerning the motivation to choose a teaching career (namely, intrinsic motivation, social utility values, and personal utility values). As in Ivanec's (2020) study, the results showed that higher EI scores predicted higher intrinsic motivation and social utility value scores. The results further suggested that pre-service teachers who were already highly motivated when choosing this career path were clearly satisfied with their choices. In this study with pre-service teachers studying in Finland, we expected to find similar positive associations between EI and the motivations for choosing a teaching career.

1.4. Teacher education in Finland

Large-scale research has shown that nearly 90% of Finnish teachers are satisfied with their career choices, as revealed by the Teaching and Learning International Survey (Taajamo et al., 2015). Moreover, according to Program for International Student Assessment (PISA) results (OECD, 2018; Schleicher, 2019), Finland is among the top countries in education rankings. The country's investment in education (Bergem et al., 1997), the general view of teaching as a highly respected profession, and teachers' autonomy are some of the factors that may explain Finland's high-quality education (Lavonen, 2020). The new reforms in teacher education across Finland has promoted and supported the development of the 21st century competences (Lavonen, 2020), that in subtle ways includes aspects of emotional intelligence. Entering the most popular teacher education programmes (e.g. for classroom and special education teachers) is competitive and involves a rigorous application

procedure with low acceptance rates (for example, 6.8% at the University of Helsinki; Muhonen, 2017). The selection process for initial teacher education follows a two-stage approach. In the first stage, applicants with low matriculation exam scores take a digital multiple-choice exam. Their performance on this exam determines whether they proceed to the second stage. The second stage involves a series of interviews focusing on applicants' non-cognitive skills. Applicants with sufficiently high matriculation exam scores proceed to this stage directly.

Primary teacher education in Finland entails a Bachelor's degree and a Master's degree in education, with a total of 300 ECTS credits (Eurydice, 2022), including content studies on curricular subjects (e.g. crafts, mathematics, and native language), at least 60 ECTS on pedagogical studies, and Bachelor's and Master's thesis studies. With the Master's degree, successful graduates can work as classroom teachers. Similarly, special education graduates with a Master's degree in educational sciences (300 ECTS) can work as classroom or special education teachers in comprehensive schools. Preschool teachers with only the Bachelor's degree in educational sciences (180 ETCS), are eligible to work as kindergarten or preschool teachers without a master's degree. All three teacher education programmes include several teaching practicum periods (Saloviita & Tolvanen, 2017). In the first teaching practice, pre-service teachers get familiarized with the school environment and usually observe the classes in various schools. In the next two or three teaching practices, pre-service teachers start their teaching practice in groups and teach courses depending on their specialization. The number and duration of the teaching practices depends on each university's syllabus (Eurydice, 2022).

2. Research questions

Qualified Finnish teachers for whom teaching was a conscious career choice are more likely to remain in the profession (Kari, 2002). Therefore, it is important to examine the types of students who are accepted into teacher education programmes to identify the developmental needs of the selection process. At the same time, it is important to explore students' motivations for choosing this career path. This study offers new insights into these topical issues by exploring the EI of students entering Finnish teacher education and its association with their motivations for choosing teaching as a profession. We aimed to answer the following research questions (RQs):

RQ1: What are pre-service teachers' EI profiles at the beginning of their teacher education in Finland?

RQ2: How are these pre-service teachers' EI profiles associated with their motivations for choosing teaching as a career?

3. Methods

3.1. Procedures

The participants in this study (N = 953) were pre-service teachers at the beginning of their studies in special education (n = 79), class teacher education (n = 431), and early childhood education (n = 443). These pre-service teachers were pursuing their studies at one of the eight universities in Finland offering initial teacher education programmes (i.e. Åbo Akademi University, University of Helsinki, University of Jyväskylä, University of Lapland, University of Eastern Finland, University of Oulu, University of Tampere, and University of Turku). From the 1.609 pre-service teachers who had been contacted, we had a response rate of 59%. Data were collected at each university through online surveys during the first six months of their first study year, in January 2021. The data collection was part of the larger, longitudinal *Follow-up Study of Students Selected in the Teacher Education Utilizing Suitability Test* (KASVU), conducted in collaboration with the eight universities mentioned above. KASVU aims to investigate pre-service teachers' learning, motivation, and commitment, and to monitor pre-service teachers' development of key competencies relevant to the teaching profession. KASVU also examines how success in previous studies and the student selection process predict certain developmental pathways (e.g. Vilppu et al., 2023).

3.2. Measures

3.2.1. Emotional intelligence

To measure EI, we used the Self-Rated Emotional Intelligence Scale (SREIS; Brackett et al., 2006). This instrument consists of 19 items rated on a Likert scale ranging from 1 (*very inaccurate*) to 5 (*very accurate*). The items pertain to four EI branches: perceiving emotions (four items; e.g. 'By looking at people's facial expressions, I recognize the emotions they are experiencing'), using emotions (three items; e.g. 'When making decisions, I listen to my feelings to see if the decision feels right'), understanding emotions (four items; e.g. 'I have a rich vocabulary to describe my emotions'), and managing emotions of self and others (eight items; e.g. 'I am able to handle most upsetting problems' and 'I am the type of person to whom others go when they need help with a difficult situation'). The scale was translated into Finnish by an official translator. The SREIS branches showed satisfactory reliability: total SREIS, $\alpha = .78$; perceiving emotions, $\alpha = .65$; using emotions, $\alpha = .75$; understanding emotions, $\alpha = .80$; managing emotions, $\alpha = .76$.

3.2.2. Motivations for choosing a teaching career

To measure the motivations for selecting a teaching career, we used the FIT-Choice scale (Watt & Richardson, 2007). This instrument consists of 33 items rated on a Likert scale ranging from 1 (*not at all important*) to 7 (*extremely important*) that concern different types of motivations: perceived teaching abilities (three items; e.g. 'Teaching is a career suited to my abilities'), intrinsic value (three items; e.g. 'I am interested in teaching'), job security (three items; e.g. 'Teaching will offer a steady career path'), time for family (three items; e.g. 'Teaching hours will fit with the responsibilities of having a family'), shape future of children/adolescents (three items; e.g. 'Teaching will allow me to influence the next generation'), enhance social equity (three items; e.g. 'Teaching will allow me to benefit the socially disadvantaged'), make social contribution (three items; e.g. 'Teaching will allow me to provide a service to society'), work with children/adolescents (three items; e.g. 'I want to help children and adolescents learn'), fallback career (three items; e.g. 'I was unsure of what career I wanted'), prior teaching and learning experiences (three items; e.g. 'I have had inspirational teachers'), and social influence (three items; e.g. 'My friends think I should become a teacher'; Richardson & Watt, 2006). The scale has been cross-culturally validated (Watt et al., 2012). The current study utilized a Finnish adaptation of the scale by Viljaranta and colleagues (see Goller et al., 2019; Kang et al., 2024). The reliabilities of the FIT-Choice subscales ranged from satisfactory to excellent: perceived teaching abilities, $\alpha = .76$; intrinsic value, $\alpha = .81$; job security, $\alpha = .87$; time for family, $\alpha = .79$; shape future of children/adolescents, $\alpha = .76$; enhance social equity, $\alpha = .87$; make social contribution, $\alpha = .84$; work with children/adolescents, $\alpha = .89$; fallback career, $\alpha = .70$; prior teaching and learning experiences, $\alpha = .85$ and social influence, $\alpha = .84$.

3.3. Analysis

To identify EI profiles, we employed latent profile analysis (LPA) in Mplus using the full information maximum likelihood (FIML) method. We used all collected data in the analysis and assumed any missing data to be missing at random (MAR). To determine the best possible number of EI profiles, we checked several fit indices and used the log-likelihood function (Jung & Wickrama, 2008). The fit indices were the Bayesian information criterion (BIC), the Vuong–Lo–Mendell–Rubin (VLMR) test, the Lo–Mendell–Rubin (LMR) test, and entropy. Regarding the BIC, we chose the model with the lowest possible value. If the VLMR and LMR tests were significant ($p < .05$), we chose the K profile as more appropriate than the K − 1 mean profile. In terms of entropy, the higher the value, the better the model (range: 0–1). Moreover, to choose the optimal number of profiles (four profiles), an interpretation based on theory was deemed important as well.

Then, we examined whether the motivation scores differed between the four EI profiles. To this end, we used Asparouhov and Muthén (2014) three-step method to examine whether the profiles differed in terms of the underlying constructs while considering any differences in how the constructs were measured and related. The three-step method corrects for classification errors using most likely class assignments. It's a three-step process, where class membership and distal outcomes are modeled separately,

with adjustments applied in the final step. For some variables, we used Lanza et al. (2013) method (DCON) instead of the three-step method (i.e. DU3STEP) because problems arose during the estimation using the three-step method. As Asparouhov and Muthén (2014) suggest, in cases where errors occur with the estimation for the distal outcome, the Lanza et al. (2013) method is a better fit, as long as the entropy is higher than 0.6, as it is in the study, which in these cases it was deemed acceptable. In Lanza et al. (2013) method, we treated the variables as a distal continuous outcome (DCON). By using this method, posterior probabilities are incorporated into the model, handling the classification uncertainty and simultaneously estimating the relationship between class and outcome. With these choices of methods we aimed to preserve the integrity of the latent classes while reducing bias in the estimations.

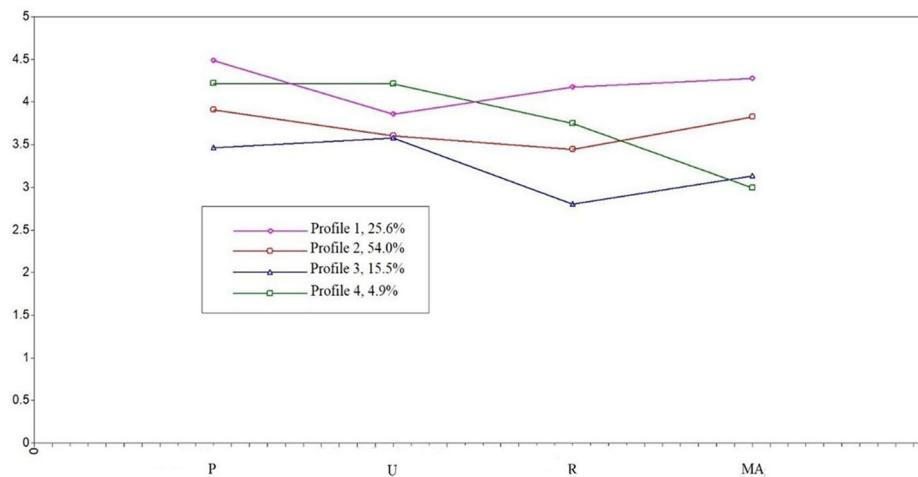## 4. Results

4.1. EI profiles

The method of Latent profile analysis was conducted in order to identify the EI profiles of pre-service teachers based on the four branches of EI: perceiving, using, understanding and managing emotions of the self and others. According to the LPA results, the four-profile solution was chosen as the best solution based on the fit indices and the theoretical interpretation. As shown in Table 1, the VLMR and LMR values supported the choice of profiles ($p < .05$). Also, the BIC and entropy values were satisfactory. Based on these values, we chose this four-profile solution, which also proved to fit our data well.

From the four profiles, Profile 1 consisted of 25.6% of the respondents ($n = 236$). Pre-service teachers of this profile had the highest scores in perceiving emotions, understanding emotions and managing emotions of the self and others (see Figure 1). Therefore, Profile 1 was named Emotionally Proficient, because of respondents' general high scores in most EI dimensions. Profile 2 was the biggest group with 54.0% of the respondents ($n = 542$). Pre-service teachers of Profile 2 had average scores in relation to their peers although according to EI standards those scores are considered high. We decided to name Profile 2 Emotionally Competent because of respondents' average scores relative to the sample of this study. Profile 3 consisted of 15.5% of the respondents ($n = 140$) and, in relation to the other profiles, pre-service teachers of this profile had the lowest scores of EI. However, their scores still represented average EI- The dimensions of perceiving, using and managing emotions were in the average range, but

Table 1. Latent profile analysis results for EI branches.

Profile	Log-likelihood	BIC	VLMR p-value	LMR p-value	Entropy	n (%)	Average L.C. probability of the likeliest latent class membership
1	3525.686	7106.249				953 (100%)	
2	3347.941	6785.056	0.000	0.000	0.573	525 (55.2%)	0.872
						427 (44.8%)	0.862
3	3299.407	6722.286	0.000	0.000	0.648	571 (60%)	0.852
						138 (14.5%)	0.799
						243 (25.5%)	0.831
4	3273.340	6704.451	0.0107	0.0120	0.697	514 (54%)	0.837
						147 (15.5%)	0.819
						46 (4.9%)	0.745
						244 (25.6%)	0.848
5	3256.126	6704.321	0.2686	0.2766	0.704	144 (15.1%)	0.811
						478 (50.2%)	0.816
						53 (5.6%)	0.725
						236 (24.9%)	0.844
						39 (4.2%)	0.739
6	3244.80	6715.968	0.4967	0.5023	0.727	12 (1.3%)	0.739
						133 (14.2%)	0.798
						44 (6.1%)	0.735
						501 (50.1%)	0.819
						30 (4.2%)	0.765
						233 (24.1%)	0.824
7	3236.881	6734.427	0.2340	0.2383	0.707	13 (1.3%)	0.802
						126 (14%)	0.794
						41 (5.1%)	0.649
						484 (47%)	0.790
						32 (4.1%)	0.739
						207 (21.6%)	0.786
						50 (6.9%)	0.733

Figure 1. The four EI profiles and the four EI branches.
Note: P = perceiving emotions; U = using emotions; R = understanding emotions; MA = managing one's own and other emotions.

Table 2. Differences in EI branches between the four profiles.

EI branch	Profile				Wald test $df = 3$	Pairwise comparisons
	1	2	3	4		
P	4.48 (.03)	3.91 (.05)	3.45 (.06)	4.22 (.14)	281.50***	1 > 4 > 2 > 3
U	3.85 (.06)	3.60 (.07)	3.57 (.07)	4.21 (.14)	29.39***	4 > 1 > 2, 3
R	4.17 (.05)	3.44 (.09)	2.80 (.09)	3.74 (.20)	195.45***	1 > 2, 4 > 3
MA	4.27 (.03)	3.82 (.06)	3.13 (.06)	2.99 (.14)	396.51***	1 > 2 > 3, 4

Note: The values are means and standard errors. P = perceiving emotions; U = using emotions; R = understanding emotions; MA = managing one's own and other emotions.
***$p < .001$.

respondents' scores on understanding emotions were low. Therefore, we named this profile Emotionally Challenged. Profile 4 was the smallest group with 4.9% of the respondents ($n = 46$). Pre-service teachers of this profile had average scores on perceiving and understanding emotions, but high scores on using emotions and the lowest score on managing emotions. Therefore, we decided to name Profile 4 Emotionally Insightful.

Furthermore, we examined differences of the four profiles based on the four factors of EI using the Wald test method, which assesses constraints on parameters. According to the four factors, all profiles had significant differences based on the Wald tests results, with values: $p < .001$ (see Table 2). Moreover, the results of pairwise comparisons revealed differences among most of the factors in each profile apart from the factor of using emotions for profiles 2 and 3, the factor of understanding emotions for profiles 2 and 4, and the factor of managing emotions for profile 3 and 4. Thus, the four-profile solution was considered optimal for the further analyses.

4.2. Motivations for selecting a teaching career across profiles

To examine the relationships between the four EI profiles and the FIT-Choice motivations, we performed the three-step statistical analysis (Asparouhov & Muthén, 2014) in Mplus and the Lanza et al. (2013) method. A χ^2 test for pairwise comparisons revealed statistically significant differences in most motivations between the profiles (see Table 3). The motivation of social utility values (contributing to society, promoting social equity, shaping the future of children, and working with children) showed the greatest statistically significant differences between the profiles. Differences between the profiles were also found in prior teaching and learning experiences and perceived teaching abilities. Fallback career and intrinsic value also showed statistically significant differences. Conversely, there were no statistically significant differences in job security, social influences, and time for family.

As shown in Figure 2, Profile 1 (Emotionally Proficient) had the highest scores ($p < .001$) on social contribution, perceived teaching abilities, shape future of children and work with children compared to

Table 3. Mean FIT-choice scores and pairwise profile comparisons.

	FIT-choice variable	Profile 1	Profile 2	Profile 3	Profile 4	χ^2 test	Pairwise comparisons
Social utility values	Make social contribution	6.28 (.15)	5.60 (.08)	5.34 (.14)	4.36 (.35)	48.50***	1, 2, 3 > 4; 1 > 3
	Shape future of children	6.13 (.16)	5.79 (.08)	5.50 (.13)	4.78 (.31)	29.76***	1 > 3, 4; 2, 3 > 4
	Social equity[a]	6.08 (.05)	5.32 (.10)	5.61 (.05)	6.13 (.12)	70.16***	1, 4 > 3 > 2
	Work with children[a]	6.52 (.04)	6.16 (.08)	6.23 (.04)	6.41 (.11)	32.09***	1 > 2, 3
Personal utility values	Job security[a]	4.85 (.08)	4.82 (.11)	4.71 (.06)	5.01 (.18)	3.70	
	Time for family[a]	4.00 (.09)	3.96 (.12)	3.80 (.06)	3.81 (.23)	3.24	
N/A	Prior teaching and learning experiences[a]	5.55 (.07)	5.07 (.11)	5.19 (.05)	4.75 (.22)	24.50***	1 > 3, 2, 4
N/A	Social influences	3.89 (.12)	3.76 (.08)	3.69 (.16)	2.88 (.45)	5.51	
N/A	Perceived teaching abilities[a]	6.09 (.04)	5.19 (.07)	5.56 (.03)	5.63 (.10)	156.08***	1 > 3, 4 > 2
N/A	Fallback career[a]	1.93 (.07)	2.26 (.11)	1.99 (.05)	2.27 (.21)	7.99*	2 > 1, 3
N/A	Intrinsic value[a]	5.56 (.06)	5.31 (.08)	5.59 (.04)	5.51 (.15)	8.45*	3 > 2

Note: Values are means and standard errors. Profile 1 = Emotionally Proficient; Profile 2 = Emotionally Competent; Profile 3 = Emotionally Challenged; Profile 4 = Emotionally Insightful.
[a]Based on DCON in Lanza et al. (2013) method. The rest were based on the three-step method.
*p < .05, ***p < .001.
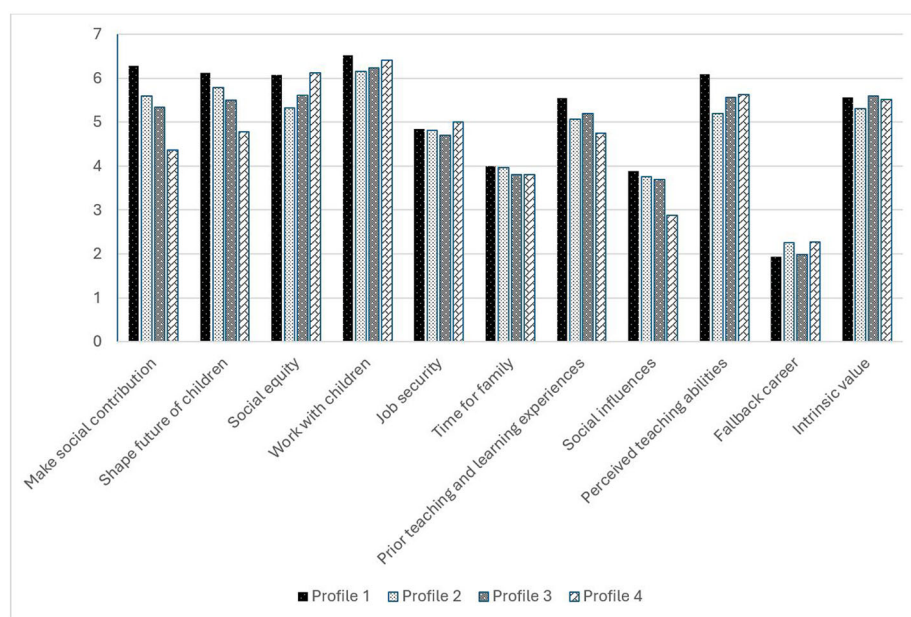
Figure 2. The four EI profiles and their FIT-choice scores.

the sample. Profile 2 (Emotionally Competent) had high scores on make social contribution and shape future of children. However, it also had significantly higher scores on fallback career than Profiles 1 and 3 (p < .05). Profile 3 (Emotionally Challenged) generally had lower scores than the other profiles. Profile 4 (Emotionally Insightful) had the statistically significantly (p > .001) lowest scores in the variables: make social contribution, prior teaching and learning experiences, social influences and shape future of children. However, it had high scores in social equity and work with children. All four profiles had low scores in fallback career which indicates that teacher education would be their first choice or among their top choices.

5. Discussion

In this study, we examined the EI of students entering Finnish teacher education and its connection with their motivation for choosing teaching as a profession. Using LPA, we identified four EI profiles based on pre-service teachers' responses on the Self-Rated Emotional Intelligence Scale (Brackett et al.,

2006). We further examined the differences in motivations for choosing a teaching career between the four EI profiles using Asparouhov and Muthén (2014) three-step method and Lanza et al. (2013) method. This study is the first to shed light on the associations between EI profiles and the distinct motivations for choosing a teaching career, especially across a country's successful applicants into university-based teacher education programmes. The results extend previous research on EI in teacher education and contribute to the understanding of its role in student selection and its associations with the intrinsic, extrinsic, and altruistic motivations that are considered the most important influencing factors in the choice to become a teacher.

5.1. Student teachers' EI profiles

Our results suggest that pre-service teachers in Finland generally have high EI levels already at the beginning of their studies. Based on the four EI branches (i.e. perceiving, using, understanding, and managing emotions), we identified four EI profiles—namely, Emotionally Proficient (Profile 1), Emotionally Competent (Profile 2), Emotionally Challenged (Profile 3), and Emotionally Insightful (Profile 4). Most respondents had high-to-average scores across the four EI branches (79.6% for Profiles 1 and 2). This suggests that, as they transition from teacher education to their professional careers, pre-service teachers are likely to be well-prepared to effectively address their pupils' social and emotional needs. The Latent Profile Analysis and results showed that all profiles were distinct from one another.

The labelling of the first and second profile was straightforward due to their consistent scores on all four EI branches. However, the labelling of the third and fourth profile was more challenging due to their inconsistent scores across the EI branches. Although Profile 3 may have been labelled 'low Emotional Intelligence', this would be misleading because the scores were, in fact, moderate by EI score standards. Hence, Profile 3 was more aptly named Emotionally Challenged. The scores of Profile 3 suggest that these pre-service teachers demonstrate moderate proficiency in processing emotions using thought but show less developed skills in fully grasping a range of emotions and their changes at different times and in different situations. The fourth EI profile exhibited high scores in three out of four branches but had the lowest score on managing emotions. Thus, we named it Emotionally Insightful. The scores of Profile 4 imply that, even though they are insightful in recognizing and understanding emotions, these pre-service teachers struggle in practice to regulate both their own emotions and those of others. For example, they may find it complicated to maintain their composure during stressful situations, which is essential for effective problem-solving.

As expected, most respondents had good EI scores, which could be attributed but not limited to the high-stakes selection process for Finnish teacher education programmes, selecting the top applicants (Lavonen, 2020). The two-stage selection procedure in Finnish teacher education specifically aims to evaluate applicants' non-cognitive skills, including social and emotional skills. Our results indicate that this process is effective in identifying pre-service teachers with high EI levels. This is an important finding, since the profile of an emotionally intelligent person matches the expectations of the teaching profession (Eisenberg et al., 2006; Frenzel et al., 2015; Mayer & Cobb, 2000).

5.2. Pre-service teachers' EI profiles and motivations

Similar to Watt and Richardson (2007) study, our respondents rated highest on the motivations of social utility values, intrinsic value, perceived teaching ability, and prior teaching and learning experiences. This result is important because it suggests a high probability of high teacher retention, as individuals who associate their professions with altruistic and intrinsic values are more likely to stay in their professions and have good professional competencies as teachers (Ballová Mikušková et al., 2024; Kari, 2002). Moreover, social utility values are associated with altruism, which is an important motivation for choosing the teaching profession (Watt et al., 2014). It is noteworthy that all EI profiles had high scores on the motivation of working with children, which is a central aspect of teaching. Moreover, all profiles had low fallback career scores, indicating the respondents' keen interest in the specific study programmes. Thus, our results suggest that the student selection process for teacher education in Finland is successful in admitting promising candidates. As teacher education is a formative period in pre-service teachers'

trajectories, it has the responsibility to nurture pre-service teachers' altruistic, intrinsic, and prosocial motivations.

Based on these results, we can conclude that EI levels are positively associated with the most important motivations for choosing a teaching career, particularly with social utility values (see also Ivanec, 2020; Ivanec & Defar, 2023). The Emotionally Proficient profile had the highest scores on the motivations of contributing to society, perceived teaching abilities, shaping the future of children, and working with children. The Emotionally Competent profile had high scores on contributing to society and shaping the future of children. The Emotionally Challenged profile had lower scores on all motivations compared to the other profiles. These results indicate that pre-service teachers with high EI were guided by altruistic motivations for choosing a teaching career (e.g. contributing to society and working with children). Individuals with high EI levels are more prosocial and have more developed interpersonal skills (Lopes et al., 2005; Martin-Raugh et al., 2016; Wang et al., 2021), which may be reflected in a strong motivation to work with children, shape their future, and contribute to society. In addition, prospective teachers with high intrinsic and altruistic motivation are more equipped professionally to navigate their careers and finding the work itself meaningful (Ballová Mikušková et al., 2024). Therefore, in the process of student selection, it is important to identify candidates who have not only high EI but also a strong motivation to teach.

5.3. Limitations and future research directions

One of the limitations of this study is that it did not examine participants' background factors (e.g. gender, age, or study programme) as covariates. Future studies could investigate differences in the motivations for choosing teaching as a career according to study programme, gender, and age. Another limitation is the use of self-report measures because they rely on the accuracy of individuals' self-understanding and may lead to social desirability bias. Future research could include follow-up studies on the development of and fluctuations in pre-service teachers' EI during teacher education. To examine whether respondents' answers are subject to bias, future studies could also include performance-based measures of EI to cross-validate the results. An additional limitation of this study may be related to the context examined. Education and teachers are highly valued in Finnish society. Future studies could examine education systems in other countries to substantiate or contrast the findings of this study. Despite this study's contribution, more studies are needed to clarify the associations between EI and motivations and to explain why pre-service teachers with high EI have more altruistic motivations for choosing teaching as a profession.

5.4. Practical implications

Our findings suggest that most pre-service teachers early in their teacher education studies in Finland have high-to-average EI levels. However, since EI may also be conceptualised as an ability (Salovey & Mayer, 1990), it is important to ensure that pre-service teachers, regardless of their study phase, gradually develop EI-related competencies before officially assuming the full responsibility of navigating pupils' affective challenges in conjunction with their learning needs. For prospective teachers to be able to teach such skills to pupils, it is imperative that they have acquired these skills themselves; teacher education is the ideal setting for this. Providing teacher educators, of even pre-service teachers themselves, with information about individualised EI profiles may be particularly valuable, as it can support pre-service teachers' self-reflection on essential interpersonal competencies and facilitate their overall professional development. A concerted effort to enhance pre-service teachers' EI development can not only improve teacher effectiveness but also reduce the likelihood of work-related stress and burnout later on (e.g. Mérida-López & Extremera, 2017; Pozo-Rico & Sandoval, 2019; Yin et al., 2013). This should be complemented by targeted in-service professional training for practicing teachers in tandem with social and emotional learning programmes for pupils, which would help to communally foster EI-related competencies in schools and instructional settings.

5.5. Conclusion

This study should be viewed as an exploratory investigation of the associations between EI and the motivations for selecting a teaching career. While we recognize the necessity of a rigorous student selection process for selecting the most suitable candidates for teacher education, we also emphasize the importance of prioritizing high-quality study programmes. The sample used in this study is representative of pre-service teacher in Finland, as it included a substantial number of respondents from eight universities that collectively oversee nearly all teacher education programmes in Finland. The four EI profiles identified and the positive relationships between EI and the most important motivations for choosing a teaching career—particularly social utility values and intrinsic value—make an important contribution to the limited research on the simultaneous examination of these phenomena. Our results highlight the importance of EI in teacher education and support the notion that individuals with high EI are more likely to possess motivations aligned with the goals of teaching.

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