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Milena Valenčič Zuljan and Janez Vogrinc

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Personal and Socio-Emotional Competences in Trainee Teachers

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Introduction

Recent research (Fer, 2004; Jaeger, 2001; Mayer & Cobb, 2000; Reiff, 2001; Schreier, 2001) indicates the need for educators to explore the role of emotional intelligence in students and teachers.

We know that in Spain there is talking about emotional intelligence on the curricula and its repercussions for teaching, learning and student adaptation, thanks to research broadly based on human intelligence, emphasising the scientific viability of affective teaching (Bisquerra, 2002; Carpena, 2001; Extremera & Fernández-Berrocal, 2003, 2004; Fernández-Berrocal & Extremera, 2002; Melero, 2000).

By maintaining that “all citizens should attain the maximum possible development in all their individual, social, intellectual, cultural and emotional capacities” Spain’s 2006 Education Act has the importance of our proposed research related to its first fundamental principle.

Although the standards that govern the educational process in Spain all refer to the integral development of students, teaching practice and reality show that not enough classroom time is spent on dealing with these matters. However, in the school environment, demands concerning social competence do appear (Bernart, 2006; López, 2006; Topping, Bremner & Holmes, 2000). It is, accordingly, necessary to revise what is being taught in schools and to propose new courses of action (Ortega & Mora-Merchan, 1996). Many studies underline the potential utility of emotional intelligence in the academic context and of integrating emotional teaching in schools (Elias, Chan, Caputi, 2000; Gil-Olarte, Palomera & Brackett, 2006; Lopes & Salovey, 2004), analysing the role of the emotions and emotional regulation in behaviour problems and social skill (Eisenberg & Fabes, 2006; Loukas & Prelow, 2004; Ortega, 1997; Ortega & Lera, 2000) and underlining its importance in preventing conflictive behaviour and improving the emotional processes involved in interpersonal contexts (Guil, Gil-Olarte, Mestre & Nuñez, 2006; Mestre, Palmero & Guil, 2004).
1. The concept of Emotional Intelligence

Over the past century, educational institutions have focused primarily on two types of intelligence: logical and linguistic (Fatt & Howe, 2003). Academic intelligence has normally been related with general or analytical intelligence, defined in psychometric terms as IQ (Sternberg, 2000; Strenberg, 2003,a).


Our mind operates in three ways: cognition, affect and motivation. Cognition includes functions such as memory, reasoning, judgment, and abstract thought. Affect includes emotions, moods, evaluations, and other feelings. Motivation is the sphere of the personality, and includes biological or learned goal-seeking behaviour (Fer, 2004).

The term “emotional intelligence”, in turn, covers two different concepts (Bar-On, 2000; Mayer, Salovey & Caruso, 2000,a,b). One has been proposed by authors such as Bar-On (2000), Goleman (1995, 1998) and McCrae (2000), who consider emotional intelligence to be a combination of a series of attributes other than IQ very closely linked with personality and related to skills referring to academic achievement. Mayer, Caruso & Salovey (2000), and Mayer, Caruso, Salovey & Sitarenios (2003), on the other hand, define emotional intelligence as the capacity to perceive and understand emotional information.

Mayer & Salovey (1990) understand emotional intelligence as a self-perceived or real capacity to perceive, understand and control one’s own and others’ feelings and emotions, and to use this information for one’s own thoughts and acts. They suggest a model of emotional intelligence covering five skills/competences: knowledge of one’s own emotions, control of the emotions, the capacity to motivate oneself, empathy and social skills. The first three skills refer to the area of intrapersonal intelligence, while the final two refer to interpersonal intelligence (Salovey & Mayer, 1990). According to these authors, the emotionally intelligent person is skilled in four abilities: (1) perception, appraisal, and expression of emotion, (2) the facilitation of thinking by emotion, (3) understanding and analyzing emotions or employing emotional knowledge, and (4) reflective regulation of emotions to promote emotional and intellectual growth (Mayer & Cobb, 2000; Mayer & Salovey, 1995; Salovey & Mayer, 1990).

According to Bar-On (1997) emotional intelligence is a series of non-cognitive capabilities, abilities and skills that influence our ability to successfully face up to environmental pressures and demands. In this scheme, emotional intelligence
consists of different factors: Intrapersonal, Interpersonal, Stress Management, Adaptability, and General Mood.

2. The importance of Emotional Intelligence in Education

Several studies attach great importance to certain non-intellectual aspects of intelligence in the prediction of academic, professional and life achievements (Bar-On, 2000; Bernard, 2006; Dulewicz, Higgs & Slaski, 2003; Epstein, 1994; Goleman, 2005; Kihlstrom & Cantor, 2000; Ryan, 2005; Salovey & Pizarro, 2003; Sternberg, 2003,b; Sternberg, Grigorenko & Bundy, 2001). From our own research, we can point out that we have obtained empirical evidence of the role played in academic performance by factors other than general intelligence (Castejón & Gilar, 2006; Castejón, Gilar, Bermejo & Mañás, 2004; Castejón, Gilar & Pérez, 2006; Gilar, 2004; Gilar, Martínez & Castejón, 2006; Sánchez, Gilar & Pérez, 2006).

We can improve our emotional intelligence by learning not only to develop our intellectual abilities (The Heart Skill Coach, 1999), but also our social and emotional skills (Pfeiffer, 2001). Hamachek (2000) points out that intellectual ability is essential in order to be successfully educated and to become a contributing member of society. Emotional intelligence is also essential because it can help people to study towards their potential and to develop healthy interpersonal relationships.

It is important to consider ways of integrating emotional intelligence skills into each student in order to obtain increased success. With students developing emotional intelligence skills more effectively, this would also help to create a more caring, supportive, and successful society. In this sense, we need emotional intelligence skills in our classrooms, both for us as teachers and for our students (Fer, 2004).

Many researchers have argued that emotional intelligence might be as important as IQ for success in both school and life (Brown, 1996; Goleman 1995; Hamachek, 2000; Mayer & Cobb, 2000; Reiff, 2001; Salovey & Mayer, 1990). These indicate that emotional intelligence affects not only how individuals get along with others, but also how they succeed in life, including academic achievement as well as personal and professional success. Accordingly, teachers have an important role in helping learners to expand their IQ and emotional intelligence potential.

3. Teacher Training in Spain

Royal Decree 1440 of 30 August 1991 establishes the official university degree of *Maestro* (Primary School Teacher) and the general guidelines for the study plans leading to this degree.
Teachers are trained at University Teacher Training Colleges and Education Faculties and the degree course lasts three years.

The teacher training profile is established on the basis of the professional profile of the job, defined by the following parameters:

− Teachers must organise the interaction between the students and the subject matter.
− Teachers must act as intermediates to ensure that activities are meaningful and stimulate the development potential of each student in cooperative group work.
− Teachers must be able to design and organise activities within the core discipline and at cross-disciplinary level and collaborate with the world outside the school.
− Teachers must be capable of analysing the context of their activity and carrying out the corresponding preparation in response to a changing society.
− Teachers must be able to act as tutors, guiding students and evaluating their learning process.

Bearing in mind this professional profile, initial teacher training involves more than studies with a high level of “content”, whether this be scientific, cultural, psychological or sociological. Future teachers must have:

− A profound knowledge of the cycle or stage in which they are going to work.
− A complete knowledge of the subject or subjects they are going to teach, and the capability to design coherent core discipline and interdisciplinary plans.
− Training based on a methodology coherent with the teacher/researcher paradigm.

In short, training that allows them not only to impart knowledge, but also enabling them to draw up curricular projects adapted to the characteristics and needs of their schools and their students. Teachers must also constantly redefine what they teach and how they teach it within the context of their school.

On the other hand, we cannot ignore the fact that the functions of teachers have increased considerably as new contents demanded by society are incorporated into the school system. These new requirements are reflected in new requirements in the training process, and include:

− Emphasising the practical nature of teaching studies and the relationship between theory and practice.
− Emphasising the training of teachers as responsible professionals, capable of taking innovative decisions through teamwork at the school.
− Ability to act, seeking synergies with other social agents that may contribute to the success of the work carried out in schools: families, associations, organisations, educational authorities.
− Knowledge acquisition and access to information.
− Training to perform their work in the knowledge society.
− Knowledge of new training processes provided by information and communication technologies.
− Need for personal and social skill training: aspects such as self-knowledge, self esteem, the capability to establish constructive group relationships, and an attitude of solidarity and democracy.
− The social skills needed to exercise leadership over the groups of students under their guidance.
− Being prepared to work in a team with the rest of the teaching staff.

One of the main subjects making up the core of the study programs is the Practicum, a series of work experience exercises.

The Practicum is a fundamental subject of the Study Program for the degree of Primary School Teacher. It covers 320 hours and is studied in the second semester of the third course.

This work experience program embraces receptive, participative, reflexive, active and critical elements. On this part of the course, students observe and participate in classroom dynamics under the supervision of a Mentor, students design and develop a series of units, subjects or projects for the class group, and he analyse and reflect critically on the experience.

The aim of this program is not merely the application of theoretical concepts and strategies, but also to allow future teachers to undertake research into the activity and reflect on their experience, merging and integrating theory and practice in an activity that will make them true professionals.

In short, the Practicum is an essential component in the training of future teachers, giving meaning to the other teaching components on which it is, in turn, based. Its basic characteristic lies in linking theoretical and practical training.

Its aims are established in the regulations that govern the Practicum, and consist of:
1. Relating theory with educational practice.
2. Connecting with professional reality by putting acquired knowledge into practice.
3. Understanding the social, cultural, educative, etc. reality in which future teachers are to act.
4. Identifying, describing and analysing the School’s Educational Project.
5. Developing a symmetrical capacity for observation and a mastery of different procedures, in order to enrich the capability for critical observation with an open, constructive attitude, comparing what they observe in practice with theoretical reference models.
6. Planning, performing and evaluating specific educational activities (with the collaboration and support of their supervisor).
7. Participating in teaching activity by becoming involved with the school and through prolonged classroom performance.
8. Encouraging and favouring a critical, reflexive attitude with regard to educational activities and their own involvement therein.
9. Taking an investigative attitude and acquiring research habits with regard to possible educational challenges in their practice as future professionals.

In order to achieve these aims, these work experience students are helped by Tutor Teachers from the Faculty of Education and are assessed by teachers at the teaching centres, known as Mentors in Teacher Induction and with extensive experience in the subject.

The mentors who supervise this work experience program are selected by the Joint Committee, on the basis of their involvement in training and inspection report programs.

The function of the mentors can be summed up in four basic aspects. First of all, to inform, guide and direct trainee teachers in observing and analysing school reality; secondly, to inform and tutorize trainee teachers in observing and analysing classroom reality; thirdly, to advise, guide and help trainee teachers in designing and developing the units, subjects or projects they have to undertake in the real teaching situation; and, lastly, to monitor and evaluate the trainee teachers, terminating in a final evaluation at the end of the work experience period.

The University Tutor draws up the scheduling, content and evaluation of the work experience program, within a series of weekly seminars throughout the work experience term.

4. The relevance of personal and socio-emotional competences in teachers

Along with teaching theoretical knowledge and civic values, teachers are involved with another, equally important aspect: shaping and adapting the affective and emotional profile of their students in the classroom. According to Abarca, Marzo & Sala (2002), the educational practice of teacher includes activities such as:
1. Affective stimulation and the regulated expression of positive and, what is more difficult, negative feelings (anger, envy, jealousy, etc.);
2. The creation of environments (school work, teamwork dynamics, etc.) for the development of socio-emotional skills and for the solving of interpersonal conflicts;
3. Exposure to experiences that can be solved using emotional strategies;
4. Teaching empathy skills by showing students how to pay attention and how to listen to and understand the points of view of others.

Moreover, emotional intelligence skills are advantageous for teachers at the preventive level. In other words, the capacity to reason about our feelings, to perceive them and understand them, as an intrinsic human skill, at the end of the day implies developing processes to regulate our feelings, helping to moderate and prevent the negative effects of teaching stress to which teachers are exposed daily (Extremera & Fernández-Berrocal, 2004).

As Abraham (1999) and Hein (2001) pointed out, emotional intelligence helps teachers to identify the feelings and fears of students, recognising their feelings and seeing to their unmet emotional needs. Much research has connected emotional intelligence with achievement, productivity, leadership, and personal health (Goleman, 1995, 1998; Epstein, 1998; Sternberg, 1996; Gardner, 1993; Weisenger, 1998; Low, 2000; Nelson and Low, 1999, 2005), identifying the need to provide emotional intelligence instruction as part of the curriculum, in order to improve academic and professional success. Goad (2005) and Justice (2005) have indicated the importance and value of emotional intelligence in teacher preparation programs. Emotional intelligence skills were linked to both classroom management performance and teacher retention factors for new and novice teachers.

Effective teaching requires emotional and empathic skills (O’Connor, in press)

Teaching and learning are socially situated practices that are deeply embedded in emotional experiences (Hargreaves, 1998). In fact, reason and emotion are interdependent because our reasoning depends on emotional choices (Zembylas, 2003).

Emotionally more intelligent teachers, i.e., teachers with a greater capacity to perceive, understand and regulate their feelings and those of others, will have the necessary resources to better face up to stressful events in their work life and to deal more effectively with the negative emotional responses that often arise in their interactions with work colleagues, parents and the students themselves.

Emotional intelligence offers many benefits for both teachers and students (Fer, 2004). Using emotional intelligence helps students to learn emotional
vocabulary and feel cared for rather than controlled. It also helps teachers to identify the feelings and fears of students, recognizing their feelings and seeing to their unmet emotional needs (Abraham, 1999; Hein, 2001a). Furthermore, emotional intelligence may be of importance in the dynamic preparation and training of both novice and expert teachers (Byron, 2001).

Research suggests that teachers may obtain considerable benefits from programs focusing on emotional intelligence and socio-emotional learning (Byron, 2001; DiNatale, 2001; Fer, 2004; Ross, 2000; Walker, 2001).

UNESCO published the Delors Report in 1996, underlining the role of the emotions and the need to educate the emotional side of persons along with their cognitive side.

The Bologna declaration established the bases for the European Higher Education Area and underlined the importance of students acquiring abilities, skills, competences and values, using a new methodology aimed at learning skills, including socio-emotional skills.

Emotional skills are associated with professional performance in many jobs, beyond other abilities such as academic intelligence (Goleman, 1998; Van der Zee, et al., 2002). Accordingly, university training programs in the US and Europe are gradually incorporating the planning and development of socio-emotional skills.

**Method**

**Participants**

126 subjects participated in this study, 63 trainee primary teachers and 63 practising teachers. The trainee teachers were all in their final degree year at the University of Alicante Faculty of Education and doing work experience at several centres in the province of Alicante (Spain). The 63 practising teachers all have wide experience and act as trainee teacher mentors, working at several centres in the province of Alicante. The educational centres at which the practising teachers teach and where the student teachers were training cover a wide range of the educational centres in Alicante and may be considered as a representative sample of the schools in the province.

Female teachers comprised 52.6% (n=199) of the practising teacher sample and 53.3% of the student teacher sample. Ages ranged from 35 to 54 (M= 41.34; SD= 4.76) in the practising teacher sample, and from 20 to 24 (M= 21.62; SD= 2.56) in the student sample. All subjects gave their informed consent before taking part.
Instruments

The Bar-On EQ-i questionnaire (1997) published by Mental Health Systems Inc. was used to evaluate the aspects of emotional intelligence taken into account. We used the Bar-On EQ-i Short Version, consisting of 52 items.

The five scales of the EQ-i are covered (Intrapersonal, Interpersonal, Stress Management, Adaptability, and General Mood) and also provide a Total EQ Score.

The Intrapersonal EQ scale assesses the inner self. High scores on this composite scale indicate individuals who are in touch with their feelings, feel good about themselves, and feel positive about what they are doing in their lives.

The Interpersonal EQ scale taps interpersonal skills and functioning. High scores in this domain signify responsible and dependable individuals with good social skills who understand, interact, and relate well with others.

The adaptability EQ scale helps reveal how successfully individuals cope with environmental demands by effectively “sizing up” and dealing with problematic situations. High scores in this composite scale identify people who are generally flexible, realistic, effective in understanding problematic situations, and competent at arriving adequate solutions.

Respondents with high scores on the Stress Management EQ scale can withstand stress without losing control. People scoring high on this component can handle stressful or anxiety-provoking tasks or tasks involving an element of danger.

The General Mood EQ scale measures one’s ability to enjoy life and one’s outlook on life and overall feeling of contentment. High scores generally indicate cheerful, positive, hopeful, and optimistic individuals who know how to enjoy life.

The average Cronbach alpha coefficients were high for all subscales, ranging from .69 to .86, with an overall average internal consistency coefficient of .76. These results indicate good reliability, particularly considering that internal consistency procedures tend to underestimate actual reliability (Guilford & Fruchter, 1978).

Procedure

The procedure varied for practising teachers and trainee teachers. Trainee teachers were tutored at the University by one of the authors of this study, inviting them to take part voluntarily during one-hour weekly tutorials held at
the University. Of the class, only 2 decided not to take part in the study. The Bar-On test was carried at a Faculty tutorial, after explaining the aims and general procedure of the study.

The practising teachers who took part in the study were chosen intentionally as trainee teacher mentors with extensive teaching experience. They were contacted by letter, explaining the general lines of the study and emphasising the need to know the socio-emotional characteristics of teachers, due to the importance being given to these aspects in teaching and to the skill-based training programs required within the new framework of the European Higher Education Area. 65 of the 70 questionnaires sent out were returned, although two had to be rejected due to missing data.

**Design and data analysis**

In accordance with the aims of the study and the general procedure followed, the design used was basically correlational. The two groups were compared following two statistical analysis procedures, the one-way analysis of variance (ANOVA) technique and the discriminant analysis technique. The two techniques were used complimentarily; while the analysis of variance shows which factors of the Bar-On questionnaire, taken in isolation, show significant differences between the two groups, the discriminant analysis made it possible to establish the discriminant function that differentiated the two groups overall and the percentage of cases classified correctly in the two groups.

**Results**

The results are presented independently for the two techniques used.

a. Results of the one-way analysis of variance:

Table 1 gives basic descriptive statistics for each group and for the total sample in each of the variables considered.

As we see, the trainee teachers had a lower average score in most of the variables relative to the socio-emotional competences evaluated by the Bar-On test. The greater differences can be appreciated in the interpersonal factor, stress management and total EQ.

Certain assumptions are required for correct application of the ANOVA test. Independent samples from normally distributed populations with the same variance must be selected. The assumption of homogeneity of variance was tested with the Bartlett F-Box test (F= 1.357, p= .259). This significance level
indicates that the variances do not appear to be unequal, so the hypothesis that the population has the same variance cannot be rejected.

Table 1
Descriptive statistics, mean scores and standard deviations for the total score and the five factors of the EQ-i.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra-personal</td>
<td>Trainee Teacher</td>
<td>63</td>
<td>34.89</td>
<td>5.54</td>
<td>.698</td>
</tr>
<tr>
<td></td>
<td>Practising</td>
<td>63</td>
<td>36.76</td>
<td>5.14</td>
<td>.647</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>126</td>
<td>35.82</td>
<td>5.40</td>
<td>.481</td>
</tr>
<tr>
<td>Inter-personal</td>
<td>Trainee Teacher</td>
<td>63</td>
<td>41.80</td>
<td>3.16</td>
<td>.398</td>
</tr>
<tr>
<td></td>
<td>Practising</td>
<td>63</td>
<td>44.42</td>
<td>3.35</td>
<td>.422</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>126</td>
<td>43.11</td>
<td>3.50</td>
<td>.312</td>
</tr>
<tr>
<td>Stress Management</td>
<td>Trainee Teacher</td>
<td>63</td>
<td>27.92</td>
<td>4.41</td>
<td>.556</td>
</tr>
<tr>
<td></td>
<td>Practising</td>
<td>63</td>
<td>29.85</td>
<td>4.59</td>
<td>.579</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>126</td>
<td>28.88</td>
<td>4.59</td>
<td>.409</td>
</tr>
<tr>
<td>Adaptability</td>
<td>Trainee Teacher</td>
<td>63</td>
<td>27.15</td>
<td>3.89</td>
<td>.490</td>
</tr>
<tr>
<td></td>
<td>Practising</td>
<td>63</td>
<td>27.20</td>
<td>3.27</td>
<td>.413</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>126</td>
<td>27.18</td>
<td>3.58</td>
<td>.319</td>
</tr>
<tr>
<td>General Mood</td>
<td>Trainee Teacher</td>
<td>63</td>
<td>37.90</td>
<td>4.48</td>
<td>.565</td>
</tr>
<tr>
<td></td>
<td>Practising</td>
<td>63</td>
<td>39.20</td>
<td>6.25</td>
<td>.787</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>126</td>
<td>38.55</td>
<td>5.45</td>
<td>.486</td>
</tr>
<tr>
<td>Total EQ</td>
<td>Trainee Teacher</td>
<td>63</td>
<td>33.93</td>
<td>3.10</td>
<td>.390</td>
</tr>
<tr>
<td></td>
<td>Practising</td>
<td>63</td>
<td>35.49</td>
<td>3.16</td>
<td>.398</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>126</td>
<td>34.71</td>
<td>3.21</td>
<td>.286</td>
</tr>
</tbody>
</table>

The results of the one-way analysis of variance (ANOVA), summarised in table 2, also show statistically significant differences in the interpersonal factor ($F_{(1,124)}=20.31$, $p=.000$), stress management ($F_{(1,124)}=5.81$, $p=.017$) and total score ($F_{(1,124)}=7.76$, $p=.006$). In all aspects evaluated, the practising teachers had higher scores than the trainee teachers.
Table 2

Abstract of the one-way analysis of variance (ANOVA)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>Sum of squares</th>
<th>d. f</th>
<th>Mean squares</th>
<th>F</th>
<th>p.</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrapersonal</td>
<td>Between groups</td>
<td>110.50</td>
<td>1</td>
<td>110.50</td>
<td>3.86</td>
<td>.052</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>3543.65</td>
<td>124</td>
<td>28.57</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3654.16</td>
<td>125</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpersonal</td>
<td>Between groups</td>
<td>216.07</td>
<td>1</td>
<td>216.07</td>
<td>20.31</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>1319.14</td>
<td>124</td>
<td>10.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1535.21</td>
<td>125</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress Management</td>
<td>Between groups</td>
<td>118.12</td>
<td>1</td>
<td>118.12</td>
<td>5.81</td>
<td>.017</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>2520.31</td>
<td>124</td>
<td>20.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2638.44</td>
<td>125</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptability</td>
<td>Between groups</td>
<td>0.071</td>
<td>1</td>
<td>0.07</td>
<td>0.006</td>
<td>.941</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>1604.73</td>
<td>124</td>
<td>12.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1604.80</td>
<td>125</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Mood</td>
<td>Between groups</td>
<td>53.36</td>
<td>1</td>
<td>53.36</td>
<td>1.82</td>
<td>.182</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>3671.74</td>
<td>124</td>
<td>29.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3725.11</td>
<td>125</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total EQ</td>
<td>Between groups</td>
<td>76.22</td>
<td>1</td>
<td>76.22</td>
<td>7.76</td>
<td>.006</td>
</tr>
<tr>
<td></td>
<td>Within groups</td>
<td>1217.17</td>
<td>124</td>
<td>9.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1293.39</td>
<td>125</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**b. Results of the Discriminant analysis**

Discriminant analysis was also applied, using the two groups of teachers as discriminant groups and their scores in the socio-emotional variables as differentiation variables. Unlike univariate testing, in discriminant analysis the emphasis is on analyzing variables together, rather than one at a time. In discriminant analysis, a linear combination of independent variables is formed and serves as the basis for assigning cases to groups.

Once the equality of the covariance matrices has been verified (Box M= 19.91, p= .212) the discriminant function between the two groups was calculated. It proved highly significant (Wilk’s lambda = .797, p= .000), using the Mahalanobis distance method to select the variables. The Mahalanobis distance, $D^2$, is a generalized measure of the distance between two groups.
The canonical correlation, a measure of the degree of association between the discriminant scores and the groups, was equal to .45.

Table 3 gives the standardized coefficients, computed to assess the contribution of each variable to the discriminant function. Table 3 shows that the inter- and intra-personal factors and stress management appear to be the variables with the greatest standardized coefficients.

Table 3
*Standardized canonical discriminant function coefficients*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Function 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrapersonal</td>
<td>.471</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>.968</td>
</tr>
<tr>
<td>Stress Management</td>
<td>.467</td>
</tr>
<tr>
<td>Adaptability</td>
<td>-.323</td>
</tr>
<tr>
<td>General Mood</td>
<td>-.580</td>
</tr>
</tbody>
</table>

Another way to assess the contribution of a variable to the discriminant function is to examine the correlation between the values of the function and the values of the variables. Table 4 shows the pooled-within-groups correlations between discriminant variables and canonical discriminant functions. The variables are ordered by size of the correlation within function. These values indicate that the interpersonal factors and stress management have the highest correlation with the discriminant function.

Table 4
*Pooled-within-groups correlations between discriminant variables and canonical discriminant functions*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Function 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal</td>
<td>.803</td>
</tr>
<tr>
<td>Stress Management</td>
<td>.430</td>
</tr>
<tr>
<td>Intrapersonal</td>
<td>.350</td>
</tr>
<tr>
<td>General Mood</td>
<td>.239</td>
</tr>
<tr>
<td>Adaptability</td>
<td>.013</td>
</tr>
</tbody>
</table>
When there is only one discriminant function, the classification of cases into groups is based on the values for the single function. Table 5 shows the classification results as a confusion matrix. This table gives the number of correct and incorrect classifications for each group. The overall percentage of cases classified correctly is 70.6% (89 out of 126).

Table 5

*Abstract of the classification results*

<table>
<thead>
<tr>
<th>Actual Group of cases</th>
<th>Number of cases</th>
<th>Predicted group membership</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Trainee teachers</td>
<td></td>
</tr>
<tr>
<td>Trainee Teacher</td>
<td>63</td>
<td>44</td>
<td>63</td>
</tr>
<tr>
<td>Practising Teacher</td>
<td>63</td>
<td>18</td>
<td>63</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>69.8</td>
<td>100.0</td>
</tr>
<tr>
<td>%</td>
<td></td>
<td>28.6</td>
<td>100.0</td>
</tr>
</tbody>
</table>

a. Percent of grouped cases correctly classified: 70.6%.

**Discussion**

Taken as a whole, the results show significant differences in socio-emotional skills between practising teachers and trainee teachers. Practising teachers display greater interpersonal skills, greater stress-management capacity and greater overall emotional intelligence, due mainly to their higher scores in the two former aspects. The two aspects where the least difference can be appreciated are adaptability and general mood.

Accordingly, these results show the need for trainee teachers to improve their interpersonal skills and tolerance of stress, for two main reasons. On the one hand, these skills are part of the professional capacities required for effective professional development in the Spanish educational system, as mentioned above. Interpersonal skills are part of an effective teacher’s tools, along with group work, coordinating teams, interaction with other teachers and with students and the treatment of individual, social and cultural diversity, among others.
Likewise, the ability to handle stressful situations in the face of interpersonal conflicts deriving from school conflicts, bad classroom behaviour, and even from dealings with colleagues and the demands made on one's self, is a highly important professional skill in order to reach effective professionalism within the Spanish system, where quite a high percentage of teachers suffer from problems such as depression and burnout, among others (Ortega & Lera, 2000).

Moreover, as the practising teachers have extensive experience, most of them acting as trainee teacher mentors, this phase of training should be used to improve the skills of the trainee teachers by taking advantage of the experience of their mentors, who, as we have seen, display greater socio-emotional skills. Under the current system, the training and evaluation of trainee teachers mainly emphasises professional and cognitive skills and abilities, such as the ability to plan classes, subject knowledge and the academic results of the students - conceptual and procedural knowledge. Nevertheless, teacher training and evaluation programs should include the development and evaluation of the socio-emotional skills discussed here, while the teachers themselves should include emotional education targets in their educational schedules for their students. This, though contemplated within the regulatory framework of the Spanish primary school curriculum, is not being put into practice (Byron, 2001; DiNatale, 2001; Fer, 2004; Walker, 2001).

On the other hand, the lack of significant differences between practising teachers and trainee teachers in adaptability and general mood shows that trainee teachers are able to adapt to new situations as well as the practising teachers are. This is a positive result, as the trainee teachers some day hope to work as teachers within the educational system, facing up to new situations and responding to new demands in a constantly changing environment (Fernandez-Berrocal & Extremera, 2002; Gil Olarte, Palomera & Brackett, 2006).

In short, the results of this study indicate the need to incorporate the development of socio-emotional skills, such as interpersonal relationships, group work, social responsibility and stress management, into trainee teacher programs, in accordance with the skill-based learning model to be developed within the framework of the European Higher Education Area. Skills such as these are beginning to be considered increasingly more necessary in the Spanish educational system, both for the professional performance of teachers and for the education of their students.
References


Bernard, M.E. (2006). It’s time we teach social-emotional competence as well as we teach academic competence. Reading and Writing Quarterly Overcoming Learning Difficulties, 22(2), 103-119.


