Understanding Emotional Competencies Through Development Education in Teacher Education

Introduction
Emotion is typically regarded as something dangerous in western cultures, something that is less valuable than ‘reason’ and that needs to be kept in check by reason. Yet in psychological research the picture is changing somewhat, and emotion is now been granted a more prominent position in areas such as the study of moral or pro-social behaviour. Its importance is also increasingly being recognised in development education.

This study sought to identify the level of emotional competence of a group of student teachers as measured by the MSCEIT emotional intelligence skills test. It also sought to identify if a development education course aimed at increasing their levels of emotional intelligence would have any impact upon their skills level. Although the initial results appeared to suggest that the course had little impact, closer analysis showed that it had a marked impact in some areas of emotional competences, but may have also confused matters for students in other areas.

Literature Review
Those of us from western countries carry with us a particular cultural heritage with respect to emotion and, even if we rarely stop to consider it, many of us carry with us common-sense folk models of emotion that have deep roots in western philosophy. Solomon (2000) points out that western philosophy since the time of Aristotle has championed the pursuit of reason and, as such, emotions have often been regarded as a threat, something which causes us to ‘loose our reason’, as the popular phrase would have it. From the time of Aristotle, the ideal relationship between reason and emotion has often been characterised as one of master and slave, with the wisdom of reason holding the chains of emotion (the irrational slave), which is chained partially because it is less valuable than its master and partially because it is dangerous. Crucially, this

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image suggests that ethical action (such as that which is the end goal of development education) requires emotion to be controlled and suppressed by reason. These ideas became part of medieval Christian ethics and, as such, non-ethical action became defined with reference to emotion. Medieval Europe's seven deadly sins (greed, gluttony, lust, anger, envy, pride and sloth) were all either emotions or, in the case of sloth, linked to an emotional state like despondency (Solomon 2000, p. 3 -6). Virtues, (like love) were, in this framework, classified as not being emotions at all, but belonging to a higher plane.

During the colonial era this idealisation of the western ‘us’ as being characterised by rationality came to have a corollary in western accounts of the non-western world: as Fanon, (quoting Senghor [1952/1986, p. 127]) has pointed out the construction of ‘us’ and ‘them’ under colonialism had it that, “Emotion is completely Negro as reason is Greek”. For Fanon, this ‘will to emote’ in African people was to be seen as a strength; an additional and valued perspective to be added to the mix (though he recognised that in the west it was rarely characterised as such). Said later developed on Fanon’s work to suggest that it was not only the African who was seen as emotional in contrast to the rational westerner, and to further emphasise that such characterisations have tended to be unflattering to the non-European. In Orientalism he describes how the irrational (emotional) is associated with the non-European as well as with a lack of virtue and moral sensibility; “The Oriental is irrational, depraved (fallen), childlike ‘different’; thus the European is rational, virtuous, mature ‘normal’” (Said 1978/1995, p40).

Mainstream psychological work in the last century on the processes that contribute to ‘moral’ action has tended to draw heavily on these folk-assumptions about the appropriate relationship between ‘reason’ and ‘emotion’. This can be seen, for example, in the primacy that has been placed on moral reasoning in the study of prosocial action or moral orientation (such as in the still influential work of Kohlberg [1976] or in the ‘Bloom’s taxonomy’ work of Krathwohl et al. [1964]). Nonetheless, in the last few decades, emotion has started to be legitimised within western psychology both as intrinsic to rationality and to moral action. Recent work on the biology of the brain has identified, for example, that the human brain is not capable of making ‘rational’ decisions without reference to its emotional processes (Turner and
Other recent work on moral (or ‘pro-social’) action has come to argue that emotional capacities – particularly the capacity to empathise – are essential to this process (Hoffman, 2001). Arising from this, Tormey has argued that, since our focus in development education is to give rise to moral or ‘pro-social’ actions, we must:

engage learners in their emotional life and in the contexts in which they live, to work with them to develop an emotional connection – a sense of empathy – with people across physical, social and cultural distances, to help them develop a language for emotions and to become comfortable with them (2005a, p 11).

Similar arguments have also been made in the related fields of education for societies in conflict (McCully, 2006) and in relation to intercultural education (Ireland, 2005; Tormey, 2005b).

This work in psychology and in development education reflects a broader trend in psychological research towards recognising the role of emotion in human capacities. Perhaps the best-known representation of this trend is the work on Multiple Intelligences (Gardner 1983; 1993) and on Emotional Intelligence (Goleman, 1996; Mayer et al. 2000, Bar-On, 2002). This work shares a concern to move away from approaches to human capacities that associate intelligence only with logical-mathematical and linguistic reasoning, and to broaden out the conception of intelligence to include other domains. Gardner’s well known work on Multiple Intelligences was in part an explicit attempt to move way from the culturally-bounded notions which associated intelligence with reasoning alone, through seeking to address the range of human capacities, including those valued by a range of cultures (1993, p. 16). In his framework he includes the artistic and the physical-kinaesthetic domains and the emotional domain (represented in his work on intra-personal and interpersonal intelligences), as well as the more traditionally recognised logical-mathematical and linguistic domains. Work on Emotional Intelligence is more focussed on the affective domain than that of Gardner, however emotional intelligence tends to be conceptualised in terms that mirror Gardner’s work in a number of key respects. It is worth noting that both conceptual work and research work on emotional intelligences and competencies are at a relatively early stage (Salovey et al. 2004: 516) and, as such, there is, as of yet, little agreement as to how emotional
competencies are to be understood, made operational or measured (Humphrey et al. 2007). This is not to say that there are no clear, operational and measured accounts of emotional intelligence, and there is a growing consensus that the work that has been carried on by Mayer, Salovey and their collaborators leads the field in a number of key respects (see O’Connor and Little, 2003, for example).

The term ‘emotional intelligence’ was coined by Peter Salovey and John D. Mayer (1990). Although broadly popularised by Daniel Goleman’s book *Emotional Intelligence, Why it can matter more than IQ*, Goleman has contributed little to the field by way of research or conceptual development. Salovey and Mayer have defined emotional intelligence as “the ability to perceive and express emotions, to understand and use them, and to manage emotions so as to foster personal growth” (Salovey et al, 2004: 506), and have used this definition to develop a framework of skills or competencies which can be used in turn to give rise to an overall measure of emotional intelligence. In their model emotional intelligence is broken down into four components, each representing a class of skills. These components are - to some degree - hierarchical in form according to their complexity. They are also inter-related and interpenetrating, with the sub-skills within each category also organised according to their complexity and with the more complex sub-skills dependant on the skills from other categories. The four categories utilised are (1) *Perception, Appraisal, and Expression of Emotion*, (2) *Using Emotion to Facilitate Thinking*, (3) *Understanding and Analysing Emotional Information* and (4) *Managing the Regulation of Emotion*. Each of these areas, Perception, Using, Understanding and Regulation are described below.

*Perception, Appraisal, and Expression of Emotion*. The skills associated with this area refer to an individual’s ability to recognise, appraise and express their own emotional states (congruence) as well as the ability to empathise with and recognise the emotional states of others.

*Using Emotion to Facilitate Thinking*. Emotional states can often be harnessed by individuals towards a number of ends. The skills associated with this area refer to the individual’s ability to use emotional states to aid problem solving and creativity as well as the individual’s ability to capitalise on mood swings in the knowledge that moods generate a mental set which in some cases (happy moods)
are useful for thinking intuitively or creative thinking and in others (sad moods) are useful when one needs to solve problems slowly with more attention to specific details.

**Understanding and Analysing Emotional Information; Employing Emotional Knowledge.** Skills identified under this heading include the individual’s ability to label and recognise emotions and also the relationships between various emotions, one’s awareness of core relational themes that underlie the various emotions and also the transitions between various emotions.

**Managing the Regulation of Emotion.** Skills associated with this particular section are primarily concerned with the individual’s openness to experience various moods and emotions and to generate or manage emotions in self and others towards desired ends.

Mayer, Salovey and their collaborators have developed a testing framework that enables these four areas of emotional intelligence to be measured. Unlike other attempts to assess emotional intelligence their test, called the Mayer, Salovey and Caruso Emotional Intelligence test (MSCEIT) is abased on the person’s ability to undertake given tasks – as such it is not a ‘self-report’ test:

The MSCEIT and its predecessors are based on the idea that EI involves problem solving with and about emotions. Such ability tests measure something relatively different from, say, self-report scales of EI with which correlations are very low (Mayer 2003, p. 98).

The MSCEIT was based on an expert group drawn from an international panel, with participants from a number of continents. As such, those taking the test are compared to an international population, rather than to a more narrowly selected group based on ethnicity or national origin as often happen in psychological research (Sue, 1999).

It should be noted that, while some superficial readings suggest that those with a high level of emotional intelligence are likely to be ‘nicer’ or more moral people, this is not necessarily the case. Emotional intelligence includes the capacity to manage the emotional content of interactions, something that is an essential part of the skill set of a snake-oil salesperson, for example. Nonetheless, the arguments for suggesting that emotional competencies such as empathy and congruence play a crucial role in pro-
social action suggest that, while such emotional competencies are not sufficient for pro-social action, they are a contributory factor.

It should also be noted that emotional intelligence framework’s like that of Mayer and Salovey are not without its critics. One common criticism is that levelled at all or most quantitative research – that qualitative research would lead to a better and more effective understanding of emotional processes and emotional competences. This is in part because emotion is closely associated with ‘meaning’ systems, something that is often better accessed through qualitative research (see Denzin 1984). At the very least, and given the newness of quantitative research into emotional intelligence, it might be expected that greater validity would be achieved through triangulating qualitative and quantitative research.

Given the renewed focus on emotion in relation to pro-social action one might expect an equally strong focus on emotion in relation to contemporary movements in education studies. Unfortunately, this is not the case; as Rosiek has noted:

Human experience is an emotional affair. This is as true for educational experience as it is for any other aspect of our lives. Learning is not simply about comprehending the abstract content of ideas; it is about discovering ourselves in relation to new ideas. It involves surprise, revelation, delight, and sometimes outrage…It is distressing, therefore, that we find ourselves in a moment when the public discourse about education is so exclusively focused on measurable cognitive outcomes of teaching (Rosiek 2003, p. 399).

This is not to suggest that there is no focus on emotion in education. Indeed, recent years have seen an increased focus on caring teachers (Noddings, 1992; Gay 2000), passionate teachers and emotionally intelligent teachers (Goleman, 1995), yet, as Hargreaves has pointed out “writers in these traditions tend to advance a view of teachers’ emotions and emotionality that is broadly personal and psychological - indeed sometimes Pollyanna-like” (2002, p. 5). Arguably the emotional intelligence framework of Mayer and Salovey overcomes these difficulties – the focus on clearly articulated and measurable skills ensures that the fuzziness of notions of ‘caring’ is overcome, while the focus on the measurement of a (relational) skill set ensures that, although the measurement is individualistic, it is not asocial. However, the comparative newness of the approach means that there is little research in the field at
present which makes use of this framework in educational settings and none that associates it with qualitative measures and with a development education setting. These are the gaps that this research seeks to address.

**Methodology**

This research sought to address a number of key questions:

1. What level of emotional intelligence (as measured on the MSCEIT triangulated with qualitative interviews) do student teachers have?
2. Can an emotional intelligence workshop series with development education elements give rise to a significant increase in their level of emotional intelligence?
3. What is the impact on the development education elements of the workshop?

An experimental methodology, based on a randomised-control trial approach was chosen as this allowed us to minimise the effects of intervening variables and to draw conclusions from relatively small numbers. The methodology is graphically illustrated below.

**Graphic Illustration of Methodology**

![Graphic Illustration of Methodology](image-url)
Undergraduate student teachers (were invited to participate in a series of workshops aimed at developing their emotional intelligence capacity through a range of activities, including development education activities. Of the students that applied, 30 were selected at random (through the process of random allocation to tutorial groups by the university administration). This 30 were further divided into an intervention and a control group, again using a random selection methodology. The MESCIT-2 was administered to these 2 groups of students. One group then undertook the emotional intelligence competencies workshops, while the other did not and continued with their studies as normal. At the end of the process the MSCEIT was re-administered to both the intervention and control group to identify what changes (if any) had occurred. These students also participated in qualitative interviews exploring their own perceptions of emotion, of emotional skills and of their learning through their course. At this time the MSCEIT was also administered to another group of 70 students selected using a stratified random sampling methodology. This gave us MSCEIT (emotional intelligence) scores for 100 students in total; 50 male and 50 female. The course of study was broken down as follows: 25 in Physical Education, 23 in Engineering (Metalwork), 26 in Construction (Woodwork) and 26 in Biological and Physical Science. Given the gender imbalance in the courses of study, the male student teachers were largely drawn from the engineering and construction programmes and female students were largely drawn from physical education and science programmes.

In the later phases of the work, students were interviewed again after undertaking teaching practice to identify if their increased awareness of the skills of emotional intelligence had impacted upon their teaching; however that data is not addressed in this paper.

Findings
Our first question asked what level of emotional intelligence student teachers have. The analysis will firstly look at total scores for emotional intelligence that is an average score encompassing all four skills (perceive, use, understand, and manage). Then each of these skills will be analysed separately. As with other intelligence tests, MSCEIT scores are constructed so that the average score for the population would be expected to be 100, with a standard deviation of 15.
The average score for the 100 students on the MSCEIT was 95.01. This is within the competent range, but is below the expected average score of 100. A comparison of means test shows this difference to be significant ($p < 0.0001$). Figure 1.1 represents the mean scores for each of the four EI skills, perceiving, using, understanding and managing emotions, as well as for the overall emotional intelligence score. Again, the average scores on each of the domains are within the competent range, but below the expected average of 100. It is notable that the students performed comparatively well on the perception of emotions in self and others, and on the management of emotional regulation, but worse on the use of emotions to facilitate thought and on understanding emotional chains and processes.

**Figure 1.1: Mean score each of the four EI skills attained by all participants (sample size 100)**

This does not tell us the whole picture, in that there are significant differences between the scores obtained by students in different programmes. Figure 1.2 represents the mean total scores for Emotional Intelligence achieved by the participants based on college course. Mean scores for physical education and science (the course which are predominantly female) are within the competent range while mean scores for engineering and construction (which are predominantly male) are within the ‘consider developing’ range.
Our second question asked whether or not the intervention (the emotional competencies/development education course) would have a significant impact upon the emotional intelligence of the students studied. Table 1.1 (below) shows that, contrary to what we might have hoped, the scores obtained by the student teachers actually dropped between the first and second test. The average score for the intervention group fell from 96.9 to 95.9, while the average score for the control group fell from 98.6 to 96.9.

Table 1.1: Comparing the mean average and standard deviation (σ) for total level of emotional intelligence between the two groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Test Score Pre-intervention</th>
<th>Mean Test Score Post-intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention Group (N = 15)</td>
<td>96.9 (σ = 10.01)</td>
<td>95.9 (σ = 8.76)</td>
</tr>
<tr>
<td>Control Group 1 (N = 15)</td>
<td>98.6 (σ = 11.81)</td>
<td>96.9 (σ = 12.61)</td>
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A further analysis of the data, however, reveals some interesting nuances which are lost in this analysis. Figure 1.7 compares the means from test one to test two for the experiment group. The mean score for managing emotions shows a marked increase from test one to test two. The mean score for understanding emotions also shows a slight increase from test one to test two. The mean score for perceiving emotions is significantly lower from test one to test two, while the mean score for using emotions also shows a slight decrease.
Figure 1.3b compares the means from test one to test two for the control group. The mean score for using and managing emotions shows a decrease from test one to test two. The mean score for perceiving emotions remain approximately constant from test one to test two. The mean score for understanding emotions shows a slight increase from test one to test two.

Figure 1.3a: Comparing means for the experiment group for test one and two.

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Figure 1.3b: Comparing means for the control group between test one and two.

Our third question asked how students responded to the development education elements of the programme. The data here is from the qualitative interviews. Although this data has not been fully analysed, a representative selection of quotations have been included here:
I think this module has stood out the most, over the last three years. It got you more involved. Encouraged group work, we got to know each other. Definitely aware of development education now (Q2C).

My feelings have changed...mining in different countries, distribution of wealth I wouldn't have thought of that as part of a science teacher's job but now I see the value of it after the dev ed that we did (Q2D).

Definitely feel different, I feel like I can bring these things into my teaching, things like pictures. I would never have thought of a picture to explain something, it doesn't have to be boring, I feel more positive about the whole thing [development education] teaching in general (Q2A).

I suppose I thought I was only going to be teaching P.E. and English, teaching values and beliefs I didn't look outside the box. Pupils are rounded people they need more than that, a lot of things I can bring in from the outside world, the speakers, the whole world rather than being boxed in (Q2B).

My feelings would have changed, it make you take notice of it, these people do exist as well, you should know about these things and how it affects us...and how we should act upon it (Q2E).

It is notable that the language of ‘feelings’ is a recurrent theme in these quotes, identifying the relationship between emotion and development education learning.

**Discussion and Conclusion**

Initial testing revealed that total level of EI was slightly higher in the control group than the experiment group. All fifteen participants from the control groups are from physical education (course of study). Only eight of the participants in the control group are from physical education while the remaining seven are from engineering. From the analysis earlier it is evident that course of study does effect levels of EI, with physical education students attaining the highest scores across all four skills. The mean score for total level of EI, in both groups, decreased slightly from test one to test two. This could be due to a number of reasons such as familiarity with the test, boredom and so on. However total EI in this case is not the best indicator of skill level because it is an average of all four skills and the variance between the skills is quite large. It is therefore more accurate to compare the means between the various skills. The mean score for managing emotions – the skill area that is perhaps most relevant to their career choice as teachers - shows a marked increase from test one to test two in the experiment group. During the intervention, a great deal of time was
spent on developing skills such as communication, decision making, constructively analysing previous actions and so on. It is possible that these activities may have contributed to this increase. The mean score for perceiving emotions are significantly lower from test one to test two. It is possible that participants over-analysed the picture during test two as a result of the activities performed during the intervention. This may have lead to the decease in scores.

The learning from this year will now be brought forward into next year when the experiment will be repeated for a second cycle.
References


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