Abstract

Emotion is now been granted a more prominent position in areas such as the study of moral or pro-social behaviour (Hoffman, 2001). Its importance is also increasingly being recognised in development education (Tormey, 2005). This research looks at the role of emotional competencies in supporting a global citizenship or development education perspective in student teachers’ practice. This was achieved by (1) investigating the level of emotional competency (as measured by the MSCEIT emotional intelligence skills test triangulated with qualitative interviews) within a group of third year teacher education students and (2) developing, implementing and evaluating an action research project from a development education perspective involving emotional intelligence within Initial Teacher Education (ITE). 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.

Keywords: Emotional intelligence; development education; MSCEIT, initial teacher education (ITE).

1. 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 this 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 global citizenship education and 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 (EI) 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 EI 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.

2. 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 image suggests that ethical action (such as that which is the end goal of global citizenship education or 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: 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: 40).

Mainstream psychological work in the last century on the processes that contribute to ‘moral’ action tended to draw heavily on these western 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 pro-social 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 Stets 2005: 22). 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 global citizenship education or 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: 11).

Similar arguments 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). Such a learning environment does not simply happen; it needs to be facilitated by teachers who have the emotional skill to recognize emotions, to identify how emotional states are linked to modes of thinking, to make sense of emotional processes and to bring this to bear in managing their own emotions and those of others.
While psychology has perhaps been slow to recognise the importance of such emotional capacities, recent work has sought to address this lacuna. 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, though seeking to address the range of human capacities, including those valued by a range of cultures (1993:16). 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 on emotional intelligences and competencies are at a relatively early stage (Salovey et al., 2000: 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., 2000: 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 Managing 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 mange 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 based 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 et al., 2003: 98). The MSCEIT was normed based on an expert group drawn from an international panel, with participants from a number of continents, but primarily based in the US. As such, the test constructors have made an effort to ensure that the test is not culturally biased, although it is still open to question as to whether or not the norms are genuinely transferable across different ethnic groups or national origins (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. Having a high level of Emotional Intelligence should not, then, be seen as a necessary outcome from a development education or global citizenship education programme. At the same time, it does seem reasonable to expect that the capacity for a teacher to organize and facilitate the sort of emotional processes that, arguably, should be a key part in development education or global citizenship education would require that teachers should have a high level of Emotional Intelligence. Indeed, 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: 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, 1996), 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: 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 to explore the levels of Emotional Intelligence among populations of teachers. Furthermore, there is no research which looks at whether or not the skills that make up Emotional Intelligence can be developed in teachers during their period of initial teacher education.

These are the gaps that this research addresses.

2.1. The aim of the research

This research sought to address a number of key questions:
1) What level of emotional intelligence 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. Method

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.
3.1. Participants

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 version 2.0 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. This entire process was then repeated with a second cohort.

Therefore, this sample consisted of 60 third year undergraduate students, across three initial teacher education courses in the University. The three college courses represented include physical education, engineering and construction which were broken down as follows: 37 (61.7%) in physical education, 15 (25%) in engineering [metalwork] education, 8 (13.3%) in construction [woodwork] education. The sample consisted of 31 females (51.7%) and 29 (48.3%) males. Participants ranged in age from 19 to 37 years at the point of testing. Given the gender imbalance in the courses of study, the female student teachers were largely drawn from the physical education programme, while male students were drawn from physical education, engineering and construction programmes.

4. Results

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.

Table 1 below outlines the mean test score and standard deviation for total level of emotional intelligence between test one and test two for the experiment and control group. It shows that the mean scores for our samples of students are around 95 –5 points below the mean score for the wider population. This difference is significant (at the p >0.05 level), which means the lower than average score in this sample probably does reflect a lower than
average score in the wider population of student teachers on such initial teacher education courses. Table 1 also shows that, contrary to what we might have hoped, the scores obtained by the student teachers in the experiment group remained approximately constant between the first and second test, while scores obtained by student teachers in the control group dropped between the first and second test. The mean score for the experiment group fell from 95.3 to 95.32, while the mean score for the control group fell from 95.1 to 93.21. Using paired samples t-tests, results indicates there is no statistically significant difference between test one and test two mean total EI scores for the experiment group (p = 0.99) and the control group (p = 0.35) as p > 0.05.

This appears to suggest that, at the level of total EI score, the development education training course did not improve the participants’ levels of EI.

Table 1. Comparing mean scores and standard deviation (σ) for total level of EI between test one (T1) and test two (T2) for the experiment and control group.

| Groups       | Mean Total EI Score Pre-Test (T1) | Mean Total EI Score Post-Test (T2) |
|--------------|-----------------------------------|-----------------------------------|
| Experiment Group (n = 30) | 95.30 (σ = 10.94) | 95.32 (σ = 9.37) |
| Control Group 1 (n = 30) | 95.10 (σ = 14.32) | 93.21 (σ = 13.53) |

A further analysis of the data, however, reveals some interesting nuances which are lost in this analysis. The boxplot in figure 2 below displays the distribution of EI skills scores and their median between test one and test two for the experiment group. Further analysis indicates that the mean score for managing emotions shows a marked increase from test one to test two. The mean score for understanding emotions also increases from test one to test two, while the mean score for perceiving and using emotions shows a decrease from test one to test two. Using paired samples t-tests, results indicate that although the increase in mean manage scores is marked it is marginally not significant (p = 0.06) at the p > 0.05 level. Nor is there a significant association in the other skill areas, namely perceive (p = 0.07), use (p = 0.86), understand (p = 0.22), and manage for the experiment group as p > 0.05.

![Figure 2. Boxplot comparing the distribution of EI skills scores between test one and two for the experiment group](image)

The boxplot in figure 3 below displays the distribution and median of EI skills scores between test one and test two for the control group. Further analysis shows the mean score for perceiving, using and managing emotions decreased from test one to test two. The mean score for understanding emotions remains approximately constant from test one to test two. Using paired samples t-tests, results indicate there is no significant difference between test one and test two.
two mean scores for the skills perceive (p = 0.5), use (p = 0.59), understand (p = 0.93), and manage (p = 0.56) for the control group as p > 0.05.

Figure 3. Boxplot comparing the distribution of EI skills scores between test one and two for the control group

5. Discussion

We noted above that, in order to facilitate the sort of emotional processes that should arguably be at the heart of development education and global citizenship education teachers should ideally have a high level of Emotional Intelligence. Indeed, Rosiek (2003) has suggested that emotion needs to be given a more central place in education debates more generally. The data presented here shows that the initial teacher education students in our study do not have a high level of Emotional Intelligence. The data shows that their level of overall EI is significantly below the norm figure of 100, suggesting that student teachers on physical education and construction education and engineering education programmes more generally score below average on such an EI test.

While there is very little existing data with which to compare this Irish data, Kremenitzer et al. (2004) have reported that in-service (i.e., practicing) teachers had significantly higher MSCEIT scores (management of emotions), than pre-service teacher candidates (i.e., those in initial teacher education, like our sample). It may be, therefore, that the low levels of EI found in our study is because we were focusing on initial teacher education students rather than qualified and practicing teachers. According to Huberman (1993) teachers careers begin with either easy or painful beginnings. As young teachers become acquainted with the emotional labour of teaching (Hochschild, 1983) they must learn to manage their emotions in order to meet the challenges of a demanding profession. In doing so they often struggle to define and delineate themselves as people (Sikes et al., 1985). They find it challenging to establish themselves as competent professionals and, as Lortie (1975) puts it, successfully cross to “the other side of the desk”. In fact emotional issues often arise in studies relating to problems encountered by beginning teachers (Bullough et al., 1991). It may be that it is these experiences that lead to an increase in their levels of Emotional Intelligence after their initial teacher education.

A contrary view can be found in the work of Brackett et al. (under review), who recently conducted a study with secondary school teachers in England. This study investigates the relationship between the emotional management score (which they refer to as emotion regulation ability), and both job satisfaction and burnout. They outline that the mean emotional regulation ability score for participants was slightly lower (about ½ standard deviation) than those reported in the normative sample (see Mayer et al., 2002). While one should be slow to read too much a small number of studies it is notable that both our study and Bracket et al. found relatively low levels of average Emotional Intelligence among a teaching population.
It is worth asking if this lower than average score represents a real lack of Emotional Intelligence among student teachers and teachers or if it might be caused by some other factor. In particular, we might wonder if the lower than average score in the UK and Irish studies represents some kind of cultural bias built into the test. There are some who believe that cognitive ability tests are transportable across cultures and argue for “universalism and, usually, cross-cultural quantification” (Sternberg and Grigorenko, 2001: 336). According to Poortinga (1998) researchers who support this position “view conventional Western tests as anchors with known psychometric properties that, when translated as necessary, can produce basic data for cross-cultural comparative purposes” (cited in Sternberg and Grigorenko, 2001:336). The assumption underlying research in this tradition is that universal sets of the best ability tests can be transported from one culture to another, “as long as they are adequately translated and administered by a ‘native’ tester” (Sternberg and Grigorenko, 2001: 336). The MSCEIT is a test developed in the United States, therefore U.S. language, syntax and colloquialism is used throughout. This may have proved problematic for an Irish audience (though no such problems were reported by those taking the test).

More generally one might ask if the theoretical assumptions and predictions derived from the normative population are applicable in the Irish (or UK) context. While normative data for the MSCEIT came from over 50 research sites including the United Kindom, Canada, Malta, South Africa, Australia, Switzerland, Scotland, the Philippines, India, Slovenia, and Sri Lanka, the majority of data came from U.S. sites (Mayer et al., 2002: 29). This means that the question as to what extent predictions and assumptions from the normative data are applicable to samples outside the U.S. remains open.

A second area of interest in our study was whether or not including Emotional Intelligence education as an element in an initial teacher education programme lead to an increase in measured levels of Emotional Intelligence. The data showed that the total EI score for those in the experimental group remained approximately constant from test one (before the EI skills education programme) to test two (after the skills programme). 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 scores between test one and test two for the various skills. The mean score for managing emotions – the skill area that is perhaps most relevant to their career choice as teachers – did show a marked – if marginally non-significant - increase from test one to test two in the experimental group. Although the data is far from conclusive, it does hint that an Emotional Intelligence skills component in initial teacher education may lead to increases in measured levels of EI skills.

6. Conclusion

Teaching is an emotional practice, no more so than when dealing with issues of global citizenship and sustainable global development. Since empathy is central to the learner’s capacity to engage positively with these issues, the facilitation of emotionally rich learning contexts is a key capacity among teachers. This in turn, is likely to be dependent on the teacher having a high degree of Emotional Intelligence, something which highlights the importance of the development of emotional competencies in pre-service teacher education (Palomera et al., 2008; Weare and Grey, 2003). Our study suggests that student teachers do not have high levels of Emotional Intelligence. This is a worrying finding. Although there is some corroborating data from other studies, there is not yet sufficient evidence internationally for any conclusive claims to be made. This study also hints – without being able to make any stronger claims – that Emotional Intelligence skills may be able to be increased in student teachers through appropriately structured educational programmes.

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