Developing Emotional Competence in Teacher Education Students: The Emotional Intelligence Agenda

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The generalist notion of the competencies of the Griffith graduate, which involves personal as well as academic skills, provides a framework within which to consider (a) the nature of emotional competencies in teacher education students, (b) changes in the developing profile of personal competencies over a 4-year program of study, and (c) strengths and weaknesses that may affect professional and personal effectiveness of the graduating teacher. It is argued that emotional intelligence needs to be considered together with cognitive intelligence in how teacher training is conceptualised. In the present study, the first phase of research design is outlined.

Competencies of university graduates

Tertiary education has become an important gatekey to employment in western societies. Intellectual ability, academic achievement, and tertiary qualifications are known predictors of life success. However, conceptualisation of ability as intellectual ability to learn (measured by intelligence tests, or IQ) does not capture the complexity of human behaviour (Kline, 1998, 2000). The complexity of behaviour is such that a viable psychometric explanation of individual differences in academic success needs to involve a triad of IQ, personality traits, and mood states and motivational dynamic factors. Moreover, these intraindividual constructs interact with sociocultural environmental factors. Under neutral conditions, IQ accounts for achievement; under stressful conditions, motivation enhances achievement. Under neutral conditions, personality correlates moderately with performance; under emotional conditions, this correlation increases. If the path to life success involves personality and motivation as well as ability, then the role of these constructs in tertiary success, especially when human services and social skills are intrinsic to those areas of study, warrants close attention.

Nontraditional constructs of ability have been in circulation from the 1920s. There were early suggestions that an important component of intelligence is "social intelligence, the ability to understand others and to act and behave wisely in relation to others" (Liff, 2003, p. 28). More recently, various approaches canvassed alternative ways to complement existing psychometric modelling of ability. Sternberg (1997, 2002), a psychometrician who has explored the nature of success in educational and in noneducational settings such as business, proposed a triad of analytic (academic),
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creative, and practical intelligence. With creative ability, an individual accomplishes personal goals by making decisions to think and act in specific ways that redefine problems, that show a willingness to take risks, and that work to persuade others toward creative ideas. With practical ability, an individual accomplishes personal goals by adapting to, shaping, and selecting environments (Sternberg, 2002). Gardner (1983) also sought to expand the traditional focus of academic learning into "multiple intelligences" in the classroom. His work has provided a popular means to reevaluate curriculum materials. Although he listed intrapersonal and interpersonal skills in his initial taxonomy of intelligences, these ideas were developed more fully within the emotional intelligence literature (Goleman, 1995; Salovey & Meyer, 1990).

School-based education has demonstrated "increasing recognition of a need to incorporate social and emotional learning/emotional intelligence (SEL) into the regular instructional program" (Ross, Powell, & Elias, 2002, p. 43). Alternative perspectives on the social and emotional components of ability proposed by commentators such as Sternberg and Gardner have dovetailed with psychological research on emotional competence building and social skills training for school-aged children. Developmental and child psychopathological research has encouraged the growing awareness that social competence facilitates school learning, fosters the development of academic competence, and amplifies the possibility that present success in academic activities will become success in later life.

In higher education, it has also been recognised that social and emotional aspects of human behaviour enrich a modern university agenda for preparation for and repair of student learning experiences (Liff, 2003). A notion of generic skills underlying lifelong success has expanded the construct of ability used in universities. It has been argued that, if short-lived disciplinary knowledge is no longer enough to guarantee a job at the end of university (www.gu.edu.au/gihe), then generic skills will enable graduates to function more effectively, flexibly, and adaptively over a longer time frame in a changing environment. Graduates need to be "able to solve (and frame) problems, communicate effectively, think critically and creatively, be information literate and be able to operate as effective team members in the workplace (Griffith Institute of Higher Education, GIHE; www.gu.edu.au/gihe/).

Since 1999, Griffith University has sought to more fully embed endorsed generic skills and abilities into the undergraduate curriculum. The Resource Pyramid, which is outlined in Figure 1, is a generic skill development model that has proposed that all graduates of academic programs at this university need to develop "building blocks of personal and professional success." Skills in later life and in work after graduation were conceived as layers of the life cycle built upon the student layers of skill development in the undergraduate years (Crebert, personal communication October 2, 2003). This model was developed in Stages 2 and 3 of the Griffith Graduate Project. The skills in the two bottom layers of bricks, moreover, were loosely related to desirable attributes of Griffith students. It was argued that generic skills are taught, practised, and assessed during undergraduate studies. Studies that have surveyed actual program and course practices, however, have employed attribute-based measures rather than skill-based measures. The Resource Pyramid remained the conceptual principle of skill development, although
subsequent identification of attributes valued within and across programs blurred some of the "brick" features.

**The Griffith Graduate**

Resource Directory for Generic Skills Development

![Resource Pyramid](Image)

"The Building Blocks of Personal and Professional Success"

Figure 1.

Resource Pyramid, a generic skill development model for students at Griffith University.

Academic skills are required in standard or traditional academic programs and courses: Many building bricks involve clearly academic skills such as "conceptual and analytical skills", "information skills", "written communication", and "problem solving and decision-making skills." Other skills in the pyramid implied a more personal element, such as those characterised by the building blocks of "adaptability and learning skills", "self-management skills", "interpersonal skills", "oral communication skills", and "teamwork." These skills may also be acquired in more traditional courses as a secondary result flowing from the expectations and demands of the learning process. A few specific courses, moreover, have a primary aim to develop these specific interpersonal and self-management skills. For example, courses in counselling and interpersonal psychology are likely to promote explicit development of such skills in theoretical and practical course activities.

Broad reviews of how widely desirable attributes and related skills have been embedded in programs and courses across the university have been undertaken in Generic Skills Snapshot Reports 2000 and 2003 (web address). Criteria for embedding
comprised skill teaching, practice, assessment to specific achievement levels, and high
program priority. These reports have noted listing, if not full embedding, of generic skills
in formal documentation for approximately half of the undergraduate programs
(Graduate Outcomes Phase I: Consolidation Stage, June 16, 2003). Overall
centre/gihe/griffith Graduate/).

However, skill selections in 2000 and 2003 have featured an ongoing emphasis on
academic skills (viz., in the 50-70% range of embeddedness) such as written and oral
communication, problem solving, and critical evaluation. Written communication, a
broadly based generic skill, was a major component of assessment, in various forms,
across most courses and programs. Some specific attributes (e.g., leadership, ethics,
lifelong learning) underwent some revisions between surveys. Some attributes were
-treated as low priority within some faculties (e.g., oral communication in science,
information literacy in arts; ethical standards in management). The 2003 snapshot
reported more reference to teamwork skill and its assessment in some form. Specific
courses were concerned with specific attributes (e.g., ethics in criminology). Yet these
programs have not featured systematic efforts to implement skills broadly relating to
personal development (viz., self-management and interpersonal skills). It appeared that
these skills were not viewed as an integral part of teaching and learning practice but were
an administrative requirement of the university.

Moreover, development of these generic skills over the course of an academic
program has not been well understood or documented. Although tertiary students are
expected to develop a range of competencies as a result of the learning experiences in
which they engage during their years of tertiary study, progress in formal and informal
aspects of generic skills has not been linked to the achievement of standards of
excellence within and across courses.

Recently, however, the Griffith Graduate Project Team (Alf Lizzio and Keithia
Wilson in Applied Psychology and Gay Crebert and colleagues in GIHE) constructed a
survey of self-assessed strengths and weakness, with separate scales derived from each of
the 14 building blocks in the Griffith Graduate model of generic skills. The survey has
been posted to the university website (http://www.gu.edu.au/centre/
gihe/griffith Graduate/). It was argued that student could use the "capability profile" as a
self-awareness tool to improve undergraduate study skills and future graduate
employability. The use of this survey with students of psychology, management and
environmental engineering has indicated that after self-assessment of a skill, framing the
relevance of a skill in terms of self-identity and then employment environment was
necessary for students to become motivated to develop the skill (Lizzio & Wilson, 2004).
Development of these skill capacities then relies on self-regulation and self-responsibility,
two central emotional competencies.

Emotional skills in teacher education

Success in teaching seems to require considerable capacities in emotional competence.
Teaching professionals need social-emotional competencies to be able to build resilience
to adversity in the field, to self-monitor performance, and to regulate emotions through
both reactive and proactive coping (Frijda, 1999). Teachers need to have sound organisational skills. They need to be self-aware of abilities and skills required for the range of roles, responsibilities, and demands of their work. They need to be able to seek support from educational leaders and managers when they self-perceive weaknesses in these abilities and skills. Teachers also need social-emotional competencies to be able to effectively manage and develop students' emotional development.

The literature provides evidence of teacher stress (Cooper & Travers, 1996), often linked with diversification of roles and increased responsibilities. Teachers need skills to deal with student behaviour problems and bullying (Nelson & Roberts, 2000) and, through inclusive practices, with a broader range of student needs for learning and behavioural support. Increasing organisational and systemic expectations and increasing expectations from parents and the general community seems to propel these extra demands. The demands placed on teachers in the current climate would seem to be increasing. Yet workplace support for teachers, through management practices and other strategies to help teachers to cope with these demands, is often lacking (Cooper & Travers, 1996).

Teacher education students complete academic courses and programs to become professionals in aspects of the field (e.g., primary, secondary, early, special). At Griffith University, undergraduate training in education involves a 4-year program of study. The requirements for secondary education differ for those for the other programs, which share a common program for the first 2 years. A human development course in the 1st year of the common program involves studies in the generic skill areas of interpersonal relationships and self-management skills (not offered in the secondary program). In the 3rd and 4th year, students enrolled in the primary, early, and special education program undertake program-specific studies.

A full range of interpersonal skills and competencies seem to be essential to manage a broad range of professional roles and responsibilities, and self-management skills seem to be essential to cope with these demands. Teacher educators, therefore, need to better understand the development of these intrapersonal (self-management) and interpersonal skills before, during, and after the process of completing an undergraduate course of study. One theory-and-measurement approach that may lead to improved understanding of how teachers develop these competencies is to consider the concept of emotional intelligence (EI).

**Emotional intelligence in teacher education**

The construct was derived by extrapolation from various literatures, as an integrative concept to "fill in a gap" inside the territorial space within the ability-personality-motivation triad (Kline, 2000). The way in which the construct was formulated within the ability-personality-motivation triad has left an ongoing discussion about the nature of the construct as a separate form of intellectual ability, as a part of personality processes, or as a mixture that offers more than a convenient framework for describing human dispositions (Goleman, 1995). Moreover, this populist notion is thought to bring a more egalitarian flavour to the explanation of life success and life satisfaction that of traditional intelligence (Zeidner, Matthews, Roberts, & MacCann, 2003). The construct of EI has
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attracted particular attention in business training and educational reform.

Various theories and definitions of EI and different constructs exist under the same term of emotional intelligence. It is possible to classify EI theories into two basic types: EI as a mental ability and as "mixed models" that comprise a mix of cognitive abilities and aspects of personality and motivation that facilitate application of abilities for handling emotion in real-world settings (Mayer, Salovey, & Caruso, 2000). Mayer and Salovey (1997) provided an ability model and argued that, as a form of intelligence, EI should be measured by objective, performance-based scales.

A widely accepted definition proposed by these EI pioneers is that emotional intelligence is "the ability to monitor one's own and others' emotions, to discriminate among them and to use the information to guide one's thinking and actions" (Salovey & Mayer, 1990, p. 189). They revised and extended this definition in order to include perceiving and regulating emotion.

Emotional intelligence involves the ability to perceive accurately, appraise and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth. (Mayer & Salovey, 1997, p. 10)

Another early definition of emotional intelligence characterised it as being any desirable feature of personal character that is not cognitive intelligence (Goleman, 1995). Goleman argued that emotional intelligence has offered a theoretical structure for the organisation of personality and has linked it to a theory of action and job performance (Goleman, 1995). Although Goleman (2001, p. 2) suggested that emotional thought is part of and contributes to logical thought and to intelligence in general, correlations between IQ and EQ range from 0 to .36.

If defined as a single construct, emotional intelligence might imply a deceptive association with cognitive capability, which is traditionally defined "intelligence" or what psychologists often call "g" by reference to general cognitive ability (Ackerman & Heggestad, 1997, Davies & Stankov, 1998). There is little evidence that EI is any more teachable or less innate or genetically determined than are traditional intelligence measures (Zeidner et al., 2003). Untested assumptions about teaching and learning, however, have been implanted in the construct disseminated in business and education, under both ability and mixed models. Goleman (1998) defined an "emotional competence" as a "learned capability based on emotional intelligence that results in outstanding performance at work" (p. 24).

Training programs for EI are escalating in contemporary applied psychology, particularly in managerial training. In some commentators' eyes, EI provides the medium by which educational reform can and finally will reach its full potential, across primary, secondary, and tertiary levels of schooling. (Zeidner et al., 2003, pp. 70-71)

The most scientifically rigorous model of EI is arguably the Salovey et al. (2000) four-branch model (see Table 1). Table 1 illustrates conceptual similarities between the components of ability and mixed models in how emotional competencies are viewed. In updating his mixed model, Goleman (2001) proposed that the competencies associated with emotional intelligence relate to the ability to recognise emotion and regulate emotion in self and others. A definition that integrates the work of Goleman (1995,
Reimagining Practice: Researching Change

1998) and Boyatzis (1982) is that emotional intelligence is observed when a person demonstrates the competencies that constitute self-awareness, self-management, social awareness, and social skills at appropriate times and ways in sufficient frequency to be effective in the situation.

Table 1
A comparison of two four-component models of emotional intelligence

<table>
<thead>
<tr>
<th>MAYER AND SALOVEY</th>
<th>GOLEMAN AND BOYATZIS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perceiving and identifying emotions</strong></td>
<td><strong>Self-awareness</strong></td>
</tr>
<tr>
<td>Able to identify own emotion</td>
<td>Awareness of self and awareness of feelings</td>
</tr>
<tr>
<td>Able to identify emotion in others</td>
<td>Accurate self-assessment and personal insight</td>
</tr>
<tr>
<td>Able to express emotions and needs accurately</td>
<td>Self-confidence and self-assurance</td>
</tr>
<tr>
<td>Able to discriminate between accurate and inaccurate expression of emotions</td>
<td></td>
</tr>
<tr>
<td><strong>Assimilating and using emotions</strong></td>
<td><strong>Social awareness</strong></td>
</tr>
<tr>
<td>Emotions help to prioritise thinking</td>
<td>Empathy,</td>
</tr>
<tr>
<td>Emotions aid judgment and memory</td>
<td>Organisational or service orientation</td>
</tr>
<tr>
<td>Emotions help understanding of multiple perspectives</td>
<td></td>
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<tr>
<td>Emotions differentially encourage problem solving approaches</td>
<td></td>
</tr>
<tr>
<td><strong>Understanding and analysing emotions</strong></td>
<td><strong>Self-management</strong></td>
</tr>
<tr>
<td>Able to recognise and label emotions</td>
<td>Self-regulation, authenticity, accountability, flexibility, and achievement orientation</td>
</tr>
<tr>
<td>Able to interpret meanings that emotions convey</td>
<td></td>
</tr>
<tr>
<td>Able to understand complex feelings</td>
<td></td>
</tr>
<tr>
<td>Able to recognise changes in emotions</td>
<td></td>
</tr>
<tr>
<td><strong>Managing emotions to promote growth</strong></td>
<td><strong>Social skills</strong></td>
</tr>
<tr>
<td>Able to stay open to feelings</td>
<td>Leadership, influencing and developing others</td>
</tr>
<tr>
<td>Able to reflectively engage or detach from emotions, depending on utility</td>
<td>Communication</td>
</tr>
<tr>
<td>Able to reflectively monitor emotions in oneself and others and to recognise reasonableness</td>
<td>Teamwork and collaboration</td>
</tr>
<tr>
<td>Able to manage emotions in self and others, by moderating negative and enhancing positive emotions, without repression or exaggeration of information</td>
<td>Change management and conflict management</td>
</tr>
</tbody>
</table>

Note. Four branches of multiple intelligence, with four levels of development (Mayer & Salovey, 1997) are compared to four clusters of emotional competence (Goleman, 1995, 1998; Boyatzis, 1982).

**Developmental education**

It is clear that there is a case that emotional competencies develop progressively over a person's life through a range of life experiences. Mayer and Salovey (1997) specifically described developmental processes for each of four branches of emotional intelligence characterised in their model. Caruso and Wolfe (2001) suggested that "it is possible for a person to enhance their knowledge about emotions and to bolster their emotional skills" (p. 165). Fox (2003) discussed factors that may play a role in the development of emotional intelligence in children.
Zeidner et al. (2003) have articulated a three-phase developmental model, which can be extended to emphasise the potential of tertiary education and professional development to impact on emotional intelligence competencies (see Figure 2). This model presents the possibility that early development of feelings and subsequent development of thought structures may project emotional difficulties and cognitive inflexibilities into mature emotional functioning.

In the literature on development of vocational preference, Holland (1985) has pointed out that people flourish in the environment when there is a good fit between their personality type and the characteristics of the environment. A lack of congruence between personality and environment may lead to dissatisfaction, instability, and lowered performance. Students who enter teacher education programs might find the tertiary learning environment at different levels of congruence with their personality type. As they are exposed to the occupational work setting (the teaching environment) through field studies experiences, congruence with this new environment might be important to their overall satisfaction.

Approximately half of the education students at Griffith University have self-reported strong agreement that their personality suited them for a teaching career (Watson, Johnson, & Billett, 2002). There were also some variations in agreement across program and campus. Whereas 55% of primary students at Logan campus and 45% of primary education students at Mt Gravatt campus agreed that there was a match between personality and program, less than 40% of secondary students at Mt Gravatt campus agreed to this match. Moreover, almost half of the 1st year students were committed to 11-20 hours of nonuniversity work, suggesting increased uncertainty in the transition into meeting the high demands of university life (Watson et al., 2002).

Commitment to teaching at entry in this cohort tended to be strong. Approximately 75% of these students chose education as first priority and most students expressed a long-term goal of teaching (Watson, Johnson, & Austin, 2004). However, whereas 64% of primary students expressed strong enthusiasm for becoming a teacher, only 43% of secondary students reported strong enthusiasm. However, less than 20% of primary students had made strong efforts to find out about the program before they commenced study, suggesting that they brought individual assumptions about the program of teacher education based on their personal experience as students. In open ended comments, students listed a range of desirable attributes as reasons that they would become good teachers (e.g., positive approach to children including rapport, patience, and understanding; communication skills; leadership skills). However, Watson et al. (2004) expressed concern that beginning students did not address pragmatic ability to handle stress and behavioural difficulties.

To understand the development of emotional intelligence through tertiary experiences, there is a need to measure relevant personality characteristics of these new students when students initially enter the program. Students enter teacher education with pre-tertiary academic and emotional competencies, general abilities, and personality variables that need to be measured at this time.
An integrated model of development of emotional intelligence from childhood to adult professional development. (Based on Zeidner, Matthews, Roberts, & McCann, 2003).
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An audit, moreover, is needed of formal and informal support for development of emotional competencies through the teacher education program. Each course potentially can assist the development of emotional competencies. Some early courses, such as human development, focus attention on the understanding of the development of social and emotional skills. Some courses focus attention on training in social competencies such as communication skills, counselling skills, and interpersonal skills. Some courses, particularly field studies courses, help students to develop reflective processes in observing others and reflecting and in self-monitoring and reflecting. Some specific courses may challenge students to develop self-awareness, particularly related to understanding emotions. Some courses may examine the nature of behaviour and motivation and the nature of change in behaviour. In each course that students undertake, through the assessment process they receive feedback about their competencies and about those aspects that need to change.

Study design
This study will measure a number of relevant variables of students undertaking the primary strand of the Bachelor of Education as they enter the tertiary program and as they proceed through the program. At the entrance point, students will be asked to complete measures of subjective well-being (Diener, 1984) and emotional competence.

Methodology
Two measures were administered to teacher education students in Year 1 and in Years 3 and 4. Some students completed the tests twice, providing a test reliability check. Other tests, including a test of personality and adjustment, are being considered for this trial and for later use.

Measures
The Satisfaction With Life Scale (SWLS). This scale is a short, 5-item instrument designed to measure global cognitive judgments of one's lives. A description of psychometric properties of the scale can be found in Pavot and Diener (1993). The scale seeks agreement on a 1 (strongly disagree) to 7 (strongly agree) scale with five statements. Subjective well-being refers to how people evaluate their lives and may include many variables, such as life satisfaction, lack of depression and anxiety, and positive moods and emotions (Deiner, 1984). It is often measured through a self-report survey in which the respondent judges and reports his/her life satisfaction.

The Emotional Competencies Inventory (ECI). A 43-item measure of emotional competencies, described by Dann (2001), draws on the Goleman and Boyatzis model of emotional intelligence (see Table 1). This measure provides summary scores for subscales of self-awareness (with items on emotional self-recognition, personal insight, and self-assurance) and self-control (with items on emotional self-management, authenticity, accountability, and flexibility).

Samples
For the present trial, Year 1 tertiary students enrolled in a development course and to Years 3 and 4 students enrolled in a counselling course and an interpersonal psychology
course completed the surveys on two occasions within a semester. Reliability was tested for those students who completed the survey in both formats.

Procedure
The Year 1 students attempted to complete two surveys on-line in the early weeks of second semester (Weeks 1-5). Of 296 students, 106 students (36%) completed the ECI. A large number of students, including the same students, completed the surveys in Week 6 (n = 185). The years 3 and 4 students completed these two surveys at 3-month intervals in first and second semesters (n = 123 at Time 1 and n = 71 at Time 2). Reliability was checked for those students who completed the survey on both occasions (n = 63).

Results and discussion
Analysis of these data will focus on the suitability of these surveys for further investigation. In particular, their reliability and validity will be examined.

The need for other test data to track changes will also canvassed. While vocational preference will be measured, it appears important to obtain data on mental health status. The General Health Questionnaire (GHQ; Goldberg, 1972, 1978, 1981) is a widely used instrument to assist in the detection and estimation of nonpsychotic psychiatric disorders in medical and community settings. Goldberg proposed that it may be used with adults of any age. He argued that it detects inability to carry out normal functions, which may result from the appearance of new and distressing phenomena. The purpose of the test is to distinguish people with some form of psychological disturbance from those who are relatively healthy. The assumption is that, although mental disorders may manifest themselves with a wide range of symptoms, there is an underlying commonality to all of these states. This common denominator is the disruption in the performance of daily life activities and the experience of subjective distress. As a result, GHQ items are summed to determine a respondent’s score on a single factor, and this score can be used to determine whether a respondent is a case (having a mental disorder) or not a case. However, some versions of the GHQ also provide subscales. The GHQ28 was chosen from a range of GHQ forms (Forms GHQ60, GHQ30, GHQ28 and GHQ12) because it is brief and because it provides information on four different subscales: somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression (Goldberg & Williams, 1988).

Conclusion
Driven by a model of the development of emotional intelligence, this research study seeks to identify life satisfaction, vocational preference, and mental health characteristics of tertiary students as they develop emotional intelligence competencies through their tertiary program. This first phase of research provides a solid foundation for further investigation of how these competencies develop.

References


