Reflection on Intelligence and Personality,
by Sharon Maguire, April 2008

In this paper I will consider the influence of intelligence and personality in learning environments that I have experienced as a teacher. I will then relate these reflections to theoretical concepts and critically examine the role of intelligence and personality in learning situations and outline the implications for teaching, given this examination.

Considering the influence of intelligence and personality in learning environments is an important aspect of quality teaching. Differing levels and types of intelligence, and differing personality traits, may serve to partly explain why some learners cope better than others with given situations, why some learners may not perform as well as others and why some learners disengage. Poor performance may be misconstrued as lack of knowledge, as opposed to recognising that the given task may not suit the nature of the individual learner. Information about personality and intelligence can assist us as facilitators to become sensitive to differences that require us to appropriately adapt our teaching methods. Learning is an emotional experience, with guidance, learners who learn about their own personality and intelligence types may become better learners, demonstrate higher skill in applying knowledge and may experience personal growth and wisdom (Parkinson & Taggar, 2006).

Charles Spearman's g factor theory of intelligence (Plucker, 2007), in particular Raymond Cattell and John Horn's (Detterman, 2007) application of two subtypes of general intelligence [fluid and crystallised], is a trait or ability theory [psychometric] , and offers a valuable way to gauge learners general academic ability. Fluid intelligence is representative of the biological basis of intelligence and is measured in such terms as speed of reasoning and memory recall (Detterman, 2007). I particularly notice the influence of fluid intelligence in the learning environment in regard to the experiences of elderly learners; processing speed is simply not as fast and many have difficulty retaining information. Ability theories are more easily quantified or measured but critics suggest that academic ability [IQ] alone does not necessarily indicate or equate with success. Contemporary learning theories, based on the work of theorist's such as Vygotsky (cited in Engeström, 1994), argue that knowledge is socially constructed and is influenced by culture and context, and as such, theories that offer insight into to practical, social and emotional intelligence and their relationship to personality may be of more value in relation to learning, development and potential ability (Kihlstrom & Cantor, n.d.).

It appears that personality and intelligence have a genetic foundation but are influenced by environment, social, cultural and historical time contexts (Merriam & Caffarella, 1999). Howard Gardner proposes multiple forms of intelligence that he considers are localised in different areas of the brain (Downing, 2008). Gardner considers that each person has a profile of intelligences with varying degrees and strengths in each area; linguistic, logical-mathematical, musical, bodily-kinaesthetic, interpersonal, intrapersonal, spatial and naturalistic (Detterman, 2007). I could easily describe most of my students when viewed through Gardner's theoretical lens; the quite students that don't interact much, the artistically creative students who design wonderful documents but can't program, the talkative students who read and write so well but aren't so great at problem solving. Among the implications for teaching in regard to individual strengths, weaknesses and talents, is the power of developing community practices in the classroom, where collective intelligence is created through dialogue, collaborative learning and social interactions - a great example of this concept in an online environment is Wikipedia, which allows thousands of people to create a collective intellectual product (Collective Intelligence, 2004). It is also important that a variety of experiences, teaching methodologies and strategies are used so that all learners are provided opportunities to engage and demonstrate their intelligence through their strengths. One of the criticisms of Gardner's theory is that musical and bodily-kinaesthetic forms are better representative of behaviour rather than domains of intelligence (Detterman, 2007).

Robert Sternberg's Triarchic theory (2003) proposes that there are three main aspects of intelligence; analytic, creative and practical, and that these are indicative of ability to achieve success in life. The aspect of practical intelligence seems of particular significance in regard to 'learning how to learn' as it involves the ability to adapt, shape and select environments based on experience. Sternberg's research (2003) indicates when students are "taught in a way that fits how they think" (p.150) their performance improves, and when the range of abilities measured is expanded, strengths become apparent that may not have been quantified by conventional testing. I reflect on one student in particular here, he manages a large local business, yet struggles in the classroom as he is basically illiterate, yet he has compensated for his analytic weakness by capitalising on his practical and creative strengths. In the classroom he excels in hardware and diagnostic areas, and has great vision and ideas. He currently receives literacy and numeracy support and sits with students that are happy to

peer tutor where needed.   Teaching so students become aware of their strengths and weaknesses, and opportunities for capitalising on strengths and compensating for weaknesses, may result in the ability to achieve success being further developed. Some critics propose that practical intelligence is not distinct aspect, but rather abilities predicted by general intelligence (Detterman, 2007).

Personality in the classroom can be described in terms of five basic factors; Openness to experience, conscientiousness, extraversion, agreeableness and neuroticism. These factors are often referred to as the 'big five' (Van Der Zee, Thijs, & Schakel, 2002, p.16). I have several warm, polite students I'd describe as agreeable, they also tend to be conscientious. I have one student at present that I'd describe a slightly neurotic as she becomes very anxious if she can't figure something out quickly and on the odd occasion reverts to tears, it's interesting to note that this student is older so this may be normative as "neuroticism may increase again very late in life" (Small et al., 2003, cited in Staudinger & Kunzmann, 2005). There are of course a few extroverts who usually bring a lot of energy and dynamism to the classes. Most students appear open to experience, though not at all times. It would appear that some aspects of personality appear to change with age, while others remain stable.

Staudinger and Kunzmann (2005) make a clear distinction between personality growth and personality adjustment when describing how personality develops. Personality adjustment usually increases as age increases, and is described as changes and development in relation to adapting to rules, societal expectations and integrating into social structures. Agreeableness and conscientiousness usually increase and neuroticism decreases. Self acceptance and positive relations increases (Ryff, 1989, cited in Staudinger & Kunzmann, 2005), as does resilience and coping better with loss and negatives.   Personality growth is less likely to increase with age, and is described in terms of insight, integrity, maturity, self-transcendence and striving towards wisdom. Extroversion usually stays the same whereas sense of purpose in life and openness to new experiences may show age related decline (Ryff, 1989, cited in Staudinger & Kunzmann, 2005). Personality develops out of interactions with changing internal and external influences and manifests as growth or adjustment depending on the goal of development.

Taylor, Marienau & Fiddler (2000) suggest that the need to make meaning is central to development, and that as educators the quality of change we encourage requires an act of transcendence. Learners need to be mentored, supported and the learning journey shared.

Engeström (1994) refers to Vygotsky when he discusses the notion of engaging in an indeterminate discourse, a common ground of comprehension and understanding. – what Vygotsky terms the zone of proximal development. Through relationships based on trust, interaction with peers, or a more experienced other, such as a facilitator with relevant experience; the learner is able to extend themselves to higher levels of cognition and development.

In conclusion, research has shown that particular emotional intelligence dimensions are indicators in the prediction of academic and social success; they can provide an indication of potential (Van Der Zee, Thijs & Schakel, 2002). "Positive links between emotional intelligence and performance outcomes are emerging" (Scott-Ladd & Chan, 2004, p. 97). By modelling, and providing experiences, that foster and encourage adaptability, resilience, decision making ability and an increased self awareness, it may be possible to strengthen particular dimensions of emotional intelligence and promote positive changes in personality that will assist learners in reaching their potential. The ability to contain, manage and tolerate emotions is vital if learners are to develop learning power, as "learning often takes place close to the emotional point where challenge may tip into threat" (Claxton, 2001). Expectations need to be challenged by new experiences, in a supportive environment, if learners are to transcend the structures in which they have been socialised and from which they construct their meaning (Staudinger and Kunzmann, 2005).

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