Bright but bored: Optimising the environment for gifted children[1]

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Bright but bored: Optimising the Environment for Gifted Children

Abstract

The failure of schools to respond to the unique attributes of young gifted children is leading many parents to seek alternative schooling strategies including home schooling. A major concern is the lack of challenge that extend gifted children in ways that enhances their emotional, social and cognitive development. Because gifted children are different in their levels of emotional development, interactions with peers and learning characteristics, they require special support to ensure their giftedness is nurtured. Drawing upon experience with enrichment programs for young gifted children, the authors explore ways of establishing nurturing learning environments that do provide the opportunities for children to develop self-esteem, to be engaged in activities that generate long term interest, and to become knowledge producers.

Gifted Children Need Special Consideration

Gifted children are exceptional children, each with their own innate capacity to excel in domains commensurate with their intellectual capability. While most children show strengths of intellect or performance in some areas, the gifted display exceptional behaviour relative to their peers.

> Gifted and talented children are those who do things a little earlier, a little faster, a little better, and probably a little differently from most other children (Ginsberg & Harrison, 1977).

These differences and characteristics impact on the support that gifted children require (Silverman, 1992):

> Giftedness is asynchronous development in which advanced cognitive abilities and heightened intensity combine to create inner experiences and awareness that are qualitatively different from the norm. This asynchrony increases with higher intellectual capacity. The uniqueness of the gifted renders them particularly vulnerable and requires modification in parenting, teaching and counseling in order for them to develop optimally (p. 1).

Intellectual giftedness, as a manifestation of high intelligence, is not a fixed apportionment but develops in a nurturing environment (Gagné, 1993). Therefore, because the development of potential may not occur spontaneously, deliberate intervention practices are essential. Thus, the purpose of this paper is to suggest strategies to establish nurturing environments necessary for the full attainment of ability.

Interpretation of behaviours is subjective

The belief that gifted children are easy to identify and hence will receive appropriate education is fallacious. If we examine the characteristics of some children, as displayed in Table 1, we see that the beliefs and understandings of the professional dictate the perspective.

Table 1

Two interpretations of behaviour (Saunders, 1986)

Admired Behaviour	Problem Behaviour
Verbal Proficiency	Talks too much; talks above the head of age peers
Long Attention Span	Tunnel vision; resistance to interruption
Rapid Learning	Inaccuracy; sloppiness
Creativity	Escape into fantasy; day dreaming
Independent Learning	Inability to accept help; nonconformity for its own sake
Critical Thinking	Critical attitude towards others; perfectionism and unreasonable standards
Preference for complexity	Resistance to simple solutions; over-extension of energies, off-task

The following example illustrates two different interpretations of, and responses to, an eight-year-old boy's behaviour; firstly, in an indifferent environment and secondly, in a

supportive environment. Martin was a child who attended an enrichment program for young children run by the authors.

An indifferent environment

Martin's classroom performance was atypical and frequently a concern. According to his teacher: "(he) thinks differently and his interests vary from those of his peers." His mother added:

> (Martin) is not always successful in the classroom ... he tends to drift off in his own thoughts ... he finds his own way of doing things (especially if more challenging) e.g. maths where he accurately uses his own methods and is able to explain his reasoning to the teacher ... spends time discussing the results of his 'mental gymnastics' where he suggests other methods by which scientific techniques could be achieved.

However Martin was repeatedly at odds with the teacher over his non-conformity and non-use of standard mathematical algorithms. The teacher's insistence that he "learn" and only use the "correct" algorithm suggests that Martin's behaviour was seen as a problem, eventhough he was a self-motivated and independent learner:

> ... he endeavours to discover as many aspects about the topic by researching it himself, questions and formulates ideas ... He easily generalises the skills and information required ... he will not stop researching a topic unless he is satisfied that he has most of the answers.

Behaviour, such as Martin's, can be interpreted either as a problem or more perceptively as an indication of giftedness. Although there is a concern that Martin's teacher is not facilitating the development of his gifts an even greater concern is the negative impact that may occur (Marjoram, 1992):

> mathematical ability can deteriorate rapidly under the influence of over teaching, insistence on prescribed methods and the re-learning of concepts already mastered by methods regarded as irrelevant. The child who already possesses the ability to add, subtract and multiply in his head can be positively bewildered by being made to perform the operation through his senses — with objects, coloured sticks and blocks (p. 41).

Martin's self-concept was also affected by his school experiences and he described how it was difficult for him to talk with other children, and how their reactions to his interests were negative. His mother was reflective about his interests, describing her dilemma as one of confusion: Was Martin brilliant or strange? In the classroom his behaviour was problematic, conflicting with the established environment.

A supportive environment

Martin's giftedness however was evident in his response to the challenging environment of an external enrichment program. For example, on one task he chose to work independently and make a three-dimensional cat from Multi-link Cubes using a diagram consisting of the front, side and top perspectives of a cat — a task which accommodated and encouraged his desire for complexity. A mentor who worked closely with Martin in the program reported:

> (Martin) said that he wanted to make the most difficult plan with the most difficult blocks. He completed his cat very quickly, in approximately 15 minutes, and had a great deal of confidence. (Martin) used the three views of the cat simultaneously to create his cat. The end product looked great — although the body of his cat was two blocks thinner than that of the plan.

Martin's mother commented on the difference between the environment in the enrichment program and school:

> I feel he is more accepting of his differences because he has met a whole group of 'like' children. He's ok ... (Martin) talks about being able to talk to other children at his level and about things that interest him. He compares this to school where he is not encouraged or understood by his peers.

Martin's teacher acknowledged that the classroom environment did not suit him, but made no modifications to accommodate his "difference", which would enable him to develop his gifts or self-concept, although many strategies could have been implemented in the classroom. Because the teacher's perspective influences the environment, school may have a negative impact on the development of gifted children rather than the assumed positive impact. The following sections describe the importance of and attributes of a supportive environment for gifted children.

Components of the Supportive Environment

Catering for gifted children requires an environment that not only responds to their unique characteristics but also allows them to express the elements of critical and creative thought (Sternberg, 1990). Such an environment would acknowledge independence and collaboration with peers as necessary components. The opportunity to engage in open-ended discovery, exploration and knowledge generation in a social context facilitated by interactions with like-minded peers and supportive teachers is essential. Within this environment the affective, social and cognitive development of the child should be addressed.

Affective development

A focus on knowing and understanding self is an important objective of a supportive environment (Sternberg 1994). Bandura (1986) stresses that educational practices should be gauged, not only by the academic parameters, but also by the impact they have on children's beliefs about themselves — self-efficacy. Through modelling and vicarious experiences supported by positive and realistic feedback children develop a sense of self-efficacy or self-confidence. Thus, it is important that children understand the dimensions of success and failure through constructive feedback from the teacher. Indeed, obtaining the right answer without being able to reflect on the processes that led to it would not be considered as a successful achievement.

Social development

Gross (1989) argues that the gifted are as exceptional in emotional and social development as they are in intellectual precocity. Gifted children display a high sense of social justice and engage in more abstract discussions than their age peers. Hence, serious communication problems and social ostracism can arise when gifted children attempt to share interests with age-peers. Thus, the gifted child subjected to peer pressure to conform to the prevalent social norms may lose their motivation to succeed in intellectual pursuits. When interacting with their intellectual peers we find that gifted children reassess their own self-concept.

Cognitive development

Gifted children have little difficulty in mastering isolated content knowledge, however, they need to integrate that knowledge and apply it to real problems. This can be initiated

by small projects in which children report on discrete undertakings. A context that incorporates play, fantasy and hypothetical situations encourages higher order thinking (Berk, 1994) and, with appropriate facilitation, stimulates scientific reasoning. Thus, independence and autonomous involvement in knowledge generation develops. However, the social nature of the context must also be recognised. Children exploring meaningful and challenging problems together, facilitated by more competent peers or mentors, are able to be extended in both cognitive and metacognitive development.

How can young children be challenged? Our expectations of children's capabilities are often underestimated. Many beliefs about cognitive development were derived from interpretations of Piaget's stage theory which in recent times has been seriously challenged (Metz, 1995). Piaget's own observations in his early work showed young children engaged in behaviours in which they trialled and tested ideas through implicit "what if ..." type reasoning. We clearly underestimate the reasoning capacities of young children.

The development of problem solving skills (knowledge acquisition, processing and metacognitive functions) through modelling, coaching and mediated learning experiences is described as cognitive apprenticeship (Table 2). These approaches are dependent on teachers helping students assimilate new experiences into existing schemata, through scaffolding and modelling **(**Vygotsky, 1978). Cognitive apprenticeship implies responsibilities for both children and teachers. The teachers through modelling, coaching and scaffolding provide the impetus for children to engage in articulation, reflection and exploration. Clearly, it is important that each child does respond actively if the process is to be successful. Hence, emotional, social and cognitive elements are interwoven and need to be addressed in the effective learning environment.

Table 2

Six teaching methods characteristic of cognitive apprenticeship

(adopted from Collins, Brown, & Newman, 1989)

Modeling	⇒ teacher demonstrates thought processes: *I think that I would do it this way, let's try this, I know how to do it... I wonder why it is like that?*
Coaching	⇒ teacher helps students in the process of problem solving: *You are going well, Nearly there.*
Scaffolding	⇒ teacher provides problem solving support which is slowly withdrawn as students become more competent: *What do we know? The first step is to check….*
Articulation	⇒ students demonstrate their knowledge and processes in a domain: *Tell me about what you have done? Why is like that? How do you know that is right?*
Reflection	⇒ students compare problem solving processes with others: *How did you do it? I did it this way.*
Exploration	⇒ students seek new problems.

Conclusions

Thus, in supporting gifted children like Martin to realise their full potential, an appropriate environment needs to be developed in which the teacher is proactive. Martin's case is by no means unique as many gifted children are reported to be bored, unchallenged and crave the opportunity to engage in more flexible activities with peers of similar aptitudes (Queensland Department of Education, 1994). We suggest three key strategies: (a) a deliberate practice of intervention, (b) opportunities for knowledge generation, and (c) setting academic goals.

Firstly, there needs to be a deliberate practice of intervention to support the gifted child. Uniformity of educational provision is a failure because children do not have the same needs. Social justice can only be achieved by taking into account individual needs. The role of the teacher is crucial therefore as both a supporter and an advocate of young gifted children.

Secondly, excellence is measured in terms of output or outcomes. Excellence is a standard of demonstrated talent. The gifted child requires opportunities to go beyond the normal classroom experiences and become a generator of knowledge rather than an assimilator of more information.

Thirdly, children develop a broad range of goals related to academic achievement. These goals encompass both task oriented and socially oriented goals. Social pressures to conform and achieve acceptance among peers develops early and can impact negatively on achievement oriented goals. Underachievement is a real problem confronting gifted children — especially girls (Silverman, 1986). The learning environment plays a significant role in determining which goals are pursued.

A teacher affects eternity. You never can tell where his (or her) influence stops — Henry Adams

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