The Gifted Challenge: Challenging The Gifted

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NSW Association for Gifted and Talented Children Inc.
Gifted Secondary School Students Catered for in Mainstream Classrooms Using an Integrated Curriculum

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There is no doubt that gifted adolescents need to have their gifts nurtured and developed through the school experience. The best practice to achieve this goal is couched in some controversy. Some educators believe that separate class placement is the best option for gifted adolescents, while others believe that enrichment programs are the solution. Research indicates that while there are many options for meeting the needs of gifted adolescents, there is no debate about the fact that their needs have to be met.

A belief in effective ways of learning, results in programs that are dynamic, based on research and answer some of the questions that gifted adolescents pose and are interested in. Using the paradigm of effective teaching and learning, the academic as well as the social and emotional goals of gifted adolescents can be achieved.

The case of a mainstream high school is highlighted here. In this school using an enrichment and advanced placement program, various areas of the curriculum are integrated and gifted adolescents choose areas to research and produce a product. They are given the freedom to choose areas to investigate using Board of Studies objectives and levels of study they feel capable of. Assessment of tasks is negotiated on an individual basis and advanced placement is awarded on the basis of merit of the research area. This reflects sound pedagogy and helps to meet the needs of many students who otherwise may not achieve in the mainstream setting.

The outcome of all schooling is the engagement of students in learning and to offer students meaningful experiences which have the potential to be transformive in their lives. This is the goal for all students in education and does not differ for those students who have high cognitive potential or who may have been labelled as gifted. However, providing good educational experiences for gifted students is an important consideration for developing and nurturing their skills. Considerations include whether to place gifted students in segregated gifted schools or classes, or to educate them in mixed ability settings or to cater for them by differentiating the curriculum (Braggett, Day & Minchin, 1996; Davis & Rimm, 1994; Gentry & Owen, 1999). Further, choices of learning experiences and how to deliver these are important considerations. Not only are educational issues important but so too are the emotional and social factors which are exceedingly important.

Characteristics and Definitions of Gifted Adolescents
For the first half of this century giftedness was viewed only as high intellectual and academic potential (Gross, 1993). This is a limited definition clearly. Carroll and Laming (1974, p.29) reported "defining giftedness is a timeless problem. Man has attempted to solve the questions of who are the gifted, and what abilities constitute giftedness for centuries...there are no universal definitions of what constitutes giftedness". However, today there is much broader acceptance that giftedness can relate to more than intellectual ability. Even in our school system multi-faceted elements of giftedness and talent are acknowledged for example in specialist high schools catering for the physically gifted or the creatively gifted.

Gagné (2000) further differentiated his earlier definition of being gifted by expressing giftedness as natural abilities which can result in talents, if they are systematically acted upon by catalysts. Gagné includes in these catalysts intrapersonal qualities such as motivation, personality and work habits as well as environmental catalysts such as family, school and teachers. Gagné 's model is the one adopted by many educational bodies as encompassing a broad view of giftedness and talent.

There is also a wide acceptance in the community of Gardner's (1983) multiple intelligences model where Gardner views intelligence as an ability or a set of abilities that allow an individual to solve problems or fashion products that are important in a particular culture. It is evident from observation and research that some individuals have one ability extremely well developed whereas others have several to many well developed abilities (Gardner, 1983; Reis, Neu & McGuire, 1997; Renzulli, 1994). Fogarty & Steehr (2008) report the challenge of integrating curricula with multiple intelligences.

The discussion about defining intelligence is ongoing and the most important aspect of that discussion is that policies, programs and provisions need to be made in order to assist adolescents to develop and grow their potential. Adolescents, are not one homogeneous group but present with enormous variety in ability, talent and in their needs (Csikszentmihalyi, Rathunde & Whalen, 1993; Delisle, 1992). Adolescents generally strive for individuality as they work toward defining their identity but in the process of being individual there is the comfort of being like others, having friends and expressing themselves. Gifted adolescents have all these challenges but in addition there is a need for gifted adolescents to fit into the peer group as well as be happy in their educational setting (Foust & Booker, 2007). They also deserve an equitable share of the educational resources such as good teachers and good learning environments.

Learning Needs of Adolescents
Learning is best viewed as a process, which leads to change in the individual and enables them to see things differently, to adapt, to perform or to create or recreate. It can be one or all of those things and hence complex processes are involved (Atkin,
1994). The process allows an individual to gain factual information, understanding or insights of ideas or skills. It also allows for attitudes, values and beliefs to be attained. Learning that is valued reflects the development of understanding and adoption of personal meaning by the individual. As an ideal the learner develops competence through the mastery of skills. If it also develops the learner’s competencies in sharing and expressing their knowledge then this is an excellent process. If this acquired knowledge can be transferred in different contexts and related to real life experiences then it is worthwhile.

There is an awareness that in many of our schools adolescents’ learning is far from ideal. There is evidence of passive, repetitive and meaningless tasks that occupy time rather than engender learning (Braggett et al, 1996). Gifted adolescents, like all other adolescents can be bored and unmotivated when learning is not a transforming experience (Martin, 2002). There is a great deal of research (Feldhusen, 1982; Gottfried & Gottfried, 1996; Mello & Worrell, 2006) pertaining to underachieving gifted adolescents whose potential is not being realised. Some gifted adolescents are intrinsically motivated and compliant to learn from all experiences and hence can be seen as successfully achieving in schools (Martin, 2002; McNabb, 1997).

It is a worthwhile aim in education to cater to all individuals and to inspire learning for all students (Atkin, 2009). The vital question in designing education for learning is ‘what is the nature of learning we value in a particular context for a particular purpose?’ (Atkin, 2009, p.9). Kolb (1984) referred to an experiential model of learning where essentially there is an experience or an action, which is reflected upon and which has the intention of improving or enhancing learners’ actions, understandings or refining their skills. This has commonality with a constructivist approach where the learner derives meaning from experiences (Beisser, 1999). Research indicates (Ozturk & Debelak, 2008; Roberts & Roberts, 2001; Tannenbaum, 1992) that effective learning occurs, especially for gifted students, when the process of learning is not only experiential but where metacognition is engaged so that a framework is developed which allows the learner to grasp the meaning of the learning and to use language, symbols and principles to further learning.

The role of the teacher and the relationship of the learner/teacher is a vital component in learning (Deci & Ryan, 1991; Dweck, 1986). Effective teachers and educators acknowledge the importance of both affective and academic domains in education and there is an understanding that all teaching and learning occurs in the context of relationships. For gifted students, having the support of teachers is crucial to their learning (Geake & Gross, 2008).

Effective, meaningful learning is based on the engagement and willing participation of the learner, some of whom are intrinsically motivated while others may often need strategies to engage and motivate them (Atkin, 1994; Martin, 2002). It is important that strategies are used to connect with the learners’ world and to stimulate a desire
and need to know. Secondly, active and appropriate processing needs to be engaged so that learning styles and various processing modes can be understood and stimulated. This requires some implicit and explicit teaching about thinking and how to learn. Lastly effective learning requires a supportive learning environment that challenges, inspires and encourages learners.

These principles are true for all learners. Gifted learners also require this focus on learning though they often know more than their peers or appear to learn easily (Hoekman, McCormick & Barnett, 2005). To utilise their potential and extend their abilities it is vital to engage them and to inspire them to expand what they already know and to challenge them to move beyond what they know now. Research has evidence of underachieving gifted adolescents who do not engage with the school learning experience and who often drop out of formal education (Martin, 2002; Nicholls, 1984). Many of these learners have social and emotional needs not catered for in the formal curriculum (Gross, 2004; Morrison, 2001).

**Social and Emotional Needs of Gifted Adolescents**

Giftedness impacts an adolescents' psychological development and well-being. The impact is likely to be on a continuum of very successful adjustment to poor adjustment. Attitudes, values, personality characteristics as well as life experiences are all relevant when looking at social and emotional adjustment. Additionally, the level of intellectual precocity also has an impact (Gross, 1993). Research shows that many gifted adolescents have the capacity for intensified thinking and feeling (Greene, 2004; Robinson, Shore & Enerson, 2007). Adolescents can be gifted athletes, artists, musicians or intellectuals. Each of them probably experience differing social and emotional needs. Being 'different' in ability and or personality qualities can lead to higher expectations, perhaps jealousy and resentment by peers or adults (Geake & Gross, 2008).

Many gifted adolescents have difficulty relating to their chronological peer group. These difficulties in social relationships can result in isolation and difficulty being accepted or hiding talents to fit with peers or even anxiety and depression (Dirkes, 1983; Silverman, 1993; Van Tassel-Baska, 1992). At times gifted adolescents display a lack of awareness of their impact on others or have difficulty accepting criticism. They can be overly competitive or refuse to do routine, repetitive assignments. At times they can be perfectionistic with difficulty selecting from a diversity of talents (Silverman, 1993). For some gifted adolescents, the level of acceptance by their peer group is the major source of stress in their lives.

A consideration when looking at the emotional and social needs of adolescents is an examination of the self-esteem and self-concept. Although it can be envisaged that self esteem of gifted adolescents will be high, research indicates that in fact this is a highly variable factor (Robinson, et al, 2007). Marsh (1990) has noted that the relation between performance and self-concept is a complicated one, with high
performance not always resulting in high self-concept. Cornell (1983) has shown that labelling a child ‘gifted’ often results in a positive self-concept and an expectation of a positive effect on a child’s self-esteem. Gross (1993, pp. 245-246) proposed that “where a child who is known to be intellectually gifted is not demonstrating high level performance, we might suspect that her exceptional cognitive abilities are not supported by healthy levels of self-concept or self-esteem”. Where self-esteem is low it is vital that adolescents are given opportunities to build their self-esteem and offered support in this regard.

It seems clear that tuning into the social and emotional needs of gifted adolescents is very important in addressing the well-being of these adolescents. The solutions are varied but include the provision of expert counselling for gifted students, (Silverman, 1993; Van Tassel-Baska, 1992) some clear discussion with adolescents about the difficulties they face, (Morrison, 2001) some specific social skills training to help with peer relationships, (Schneider, 1987), the provision of appropriate curricula to meet the educational needs in order to lower the mismatch between ability and achievement (Bees, 1998; Gross, 2004; Robinson, 2006) as well as mentoring with appropriate adults to help value gifted adolescents for the people they are (DuBois, Holloway, Valentine & Cooper, 2002; Pleiss & Feldhusen, 1995).

**Grouping Options for Catering for Gifted Adolescents**

There are many ways of grouping students and ways of catering for students who are gifted. Programs can be classified as special class placement, enrichment programs, acceleration through classes, selective schools, special interest groupings or individual programs or a combination of some of the above provisions (Braggett, 1985, Gross, 1993; Hoge & Renzulli, 1993).

Allen (1991) after analysing and reviewing many research studies concluded that gifted and high ability children show positive academic effects from some forms of homogeneous grouping. The positive effects of grouping result from the acceleration and special curriculum that can be provided in such classes. The link between grouping, acceleration and differentiated curriculum is an essential aspect of the instruction that produces higher achievement among gifted students (Feldhusen & Moon, 1992).

How indeed can schools best cater for gifted students? Often a means of initially catering for gifted adolescents, especially those who work quickly and complete work before their age peers, is to simply give them more of the same to do. Although speed of mental processing is one aspect of giftedness, Van Deur (1996) believed that gifted children think differently to other children and therefore a qualitatively different program needs to be provided. Langrehr (1994) outlined that better thinkers are those who quickly sense patterns in information, are motivated to ask themselves relevant questions, construct clear mental maps, form connections between known concepts and new ideas, think flexibly and thrive on questions and problems. Consequently, there is a need for a differentiated curriculum for gifted learners as well as
consideration for acceleration or special class placement for gifted adolescents (Braggett et al, 1996).

What is obvious in research in gifted education is the range of conclusions reached about the suitability of different instructional organisations. Sicola (1990, p. 47) suggested that the “only reliable findings of research suggest that an individual program is the best answer and that there is no other universal sequential method for meeting the unique needs of this very diverse population”. This response however, does not give evidence to whether this individual program would be implemented within a homogeneous or heterogeneous classroom or not in a classroom at all.

Braggett & Moltzen, (2000) argue strongly for the value of differentiating the curriculum as a viable means of meeting the needs of gifted students and the value of this means of catering for gifted students in the high school setting.

In an Australian setting, when gifted students were asked for their perceptions of what they valued in education, the response indicated that students valued personal-social characteristics of teachers most highly above cognitive qualities or classroom organisational factors (Williams, 1988). The quality of teaching in nurturing students' talents in whatever setting is seen as an important consideration in catering for gifted students (Resnick, 1987; Schlichter, 1993).

Slavin's (1990) best evidence synthesis of the research on ability grouping at the secondary level in American schools seems comprehensive. He concluded that there are no significant benefits academically of special class placement for gifted students in high school but that some specific provisions are essential to keep gifted adolescents motivated and interested in schoolwork. The need to provide for gifted students is an unquestionable given.

A Case Study Response to Catering for Gifted Adolescents
In a mainstream secondary school in NSW a response to catering for the needs of gifted students is worthy of study. It has and continues to provide programs where students undertake studies in which various areas of the curriculum are integrated. This is in response to the need to cater for gifted learners in a crowded curriculum and with competing demands for time. Individual projects are negotiated with students and the program facilitator with an awareness of differentiated instruction, incorporation of technology and one or more areas of the curriculum. The school refers to this process as a “Tri Cell Model” and it is a unique response to acknowledging individual gifts of students, differentiating the curriculum as well as integrating various curriculum areas. As a consequence an assessment schedule has to be individually negotiated. The School calls it an Honours and Advancement Program.

'The Honours and Advancement program seeks to empower students to become informed, critical and responsible citizens by developing knowledge, understanding, skills and values. It seeks to meet the educational, social and emotional needs of students by encouraging research and providing services to students and their families'. (Tyler, 2007, p1)
The program’s objectives revolve around empowering students to become informed thinkers, critical appraisers and responsible citizens. Research skills are encouraged and developed in areas of knowledge, understanding, as well as in application and in thinking processes so that a higher level of abstract thought and even performance can be developed at a level of complexity appropriate to the student’s developmental level. This allows the student to explore an area of interest at the highest possible level or the chance to produce something new.

Students enter this program by self-selection, by being invited by the program facilitator or nominated by a parent or teacher. This process usually results in attracting high ability students for whom the mainstream program is not meeting their needs. Some of these students would be considered ‘gifted’ on an IQ test while others have particular talents which are not recognised or valued by the traditional curriculum. The most valuable part of this program is that it caters for adolescents who are not being well catered for in the mainstream program.

The process involves the student initially undertaking three tasks.

i) identifying an area of research from a chosen field of interest

ii) selecting the number of Core topic areas which they wish to integrate (A core topic area is a subject area that they are currently studying eg science or else they may integrate a number of core areas e.g. maths and science)

iii) linking and integrating Board of Studies Outcomes with interest areas and core topics chosen

The Outcomes are selected from the written documents of the Core Topic areas of the research (Board of Studies, 2009). The number of Outcomes are negotiated with the subject Coordinators and the Program Facilitator. Advanced Placement may be given to students who select Outcomes from different stages of Core Topics. All research tasks are required to incorporate Information and Communication Technology (ICT) Outcomes in their processing and presentation. After selecting the outcomes, students are required to specify the complexity of thought process which will be engaged in during research. They are to apply verbs to the outcomes in order to show engagement with Bloom’s Taxonomy of thinking which has recently been updated to Anderson & Krathwohl’s (2001) hierarchy.

Verbs carry points with a minimum of eight points per subject. Eg if three outcomes are selected from Science, then a student can change the verbs that form the question of investigation. Eg the verb ‘evaluate’ has a score of 5, whilst ‘describe’ has a value of one. This shows the student is applying higher order thinking as detailed in Bloom’s Taxonomy (Bloom, 1956) or Anderson & Krathwohl’s hierarchy (2001).

The research project is assessed with 50% of total assessment of the Core Topics for that year. Once the research area is determined and Topic Areas and Outcomes specified then an individual marking schedule is developed for each student so they
are aware of the assessment process and criteria. All submissions are marked by
tertiary educators outside the school. Students receive credit for their achieved
outcomes thus providing opportunity for acceleration.

The program has recently been extended to cater for students interested in Open
University (Years 9-12). Students are now able to negotiate assessment tasks in line
with Open University requirements providing they are related to their subject area.
Eg. English Extension and Journalism.

Students can be in Year 7 or beyond to enter the program. They have an option of
working in a supervised session with the program facilitator once a week or as
negotiated with Topic Area teachers. Alternatively they can choose times outside of
the school day, such as before or after school. All students are enrolled in Moodle so
that they can have electronic access to the Program Facilitator for guidance, assistance
or feedback.

Example below shows a Year 8 student choosing two Core Topics and consequent
Outcomes from either Stage 4 or 5.

This student wants to research the impact on the local community of recycling
behaviour in the district. He is concerned for the sustainability of the Earth and the
Earth’s resources.

<table>
<thead>
<tr>
<th>Core Subject</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science</td>
<td>4.9 describes the dynamic structure of the Earth and its relationship to other parts of our solar system and the universe 5.11 analyses the impact of human resources on the biosphere to evaluate methods of conserving, protecting and maintaining the Earth’s resources</td>
</tr>
<tr>
<td>Maths</td>
<td>4.6 create, record and describe number patterns using words Use algebraic symbols to translate descriptions of number patterns. Represent number patterns as points on a grid SGS4.3 classifies, constructs and determines the properties of plane figures</td>
</tr>
<tr>
<td>ICT</td>
<td>3.1 Students learn to: use the features of information and communication technologies to compose a range of</td>
</tr>
</tbody>
</table>
| imaginative, critical and factual texts...

Students learn to: use diagrams, graphs, tables. Databases, spreadsheets and flow charts to show relationships and present information clearly and/or succinctly |

Advantages and Disadvantages of this System
Within the context of a large secondary school with a unique culture and complexity, many students are well catered for in this milieu but it is evident that many students' needs can be unattended. For the gifted adolescent, a school system that caters for an advanced placement process and allows individual research to be carried out while fulfilling the requirements of set curriculum Outcomes has many positive factors in its favour. These advantages include providing an element of choice for individuals in pursuing a passion or area of interest or concern, as well as allowing for differentiation of the curriculum to occur without too many resources being spent on the process. Additionally, it allows for a crowded curriculum, to be integrated so that a number of Outcomes can be addressed simultaneously. This system allows for individual progression through the Outcomes so that students are not held back or bored by having to sit through lessons in which that they have already reached mastery.

This process allows the use of mentors from the community to be a positive influence in the research these students undertake. Specific talents of individuals can be nurtured quite successfully in this process (Pleiss & Feldhusen, 1995). Most importantly, this process allows for the adaptation of a given curriculum, on an individual basis, where content and teaching methods are adapted and skills and strategies used so that the final product reflects the work, thinking and development of an individual (Braggnet al, 1996). Using a research base, and the interests of gifted adolescents, performance skills are enhanced, self-concept, self-esteem and motivation are sustained or improved. High level thinking and creative skills are nurtured along side technical skills.

Disadvantages are difficult to find beyond the importance of tracking the progress of individual students and what they have achieved. The other difficulty that arises at times is when teachers see the content that they choose as the only or best way for Outcomes to be reached and do not support the individual progression and interests of students. Effective teachers are vital in supporting gifted students meeting their individual goals (Geake & Gross, 2007). Among the gifted population of adolescents the partnership in learning with teachers, parents and community members can be difficult to organise but should not be sacrificed for this reason (Atkin, 1994). A final disadvantage that can arise but is not a necessary outcome is not giving these adolescents sufficient time to be team players and to learn good social interaction skills.

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Conclusions
Meeting the complex needs of gifted adolescents is at the crux of the issue. Nurturing, sustaining and developing talent and ability is in the interests of the country as well as the individual. What is clear is that there is not only one way of pursuing this process (Bragett et al, 1996). There are many ways of catering for the differing needs of gifted adolescents (Gentry et al, 1999). For many, the mainstream school curriculum allows the gifted adolescent to reach high standards in set outcomes and satisfies their need for growth and development.

For those gifted adolescents who find the mainstream curriculum boring, unchallenging or unmotivating, these are the individuals for whom we need to make special considerations (Dweck, 1986; Martin, 2002). There is a degree of responsibility that we as educators have to inspire, nurture and develop the talents and gifts of these adolescents. The response often needs to be an individual response to cater for very particular needs but within the constraints of a crowded secondary curriculum, limited resources and expertise the answer is often to do nothing. The school needs to encourage teachers capable of inspiring and helping progress the gifted students. They will be tomorrows creative thinkers.

The particular response of the high school case given in this chapter, illustrates that within the crowded curriculum, without a huge budget, individual needs of gifted adolescents can be met. Using this model, curricula can be differentiated and integrated and research can be the basis of study allowing for interests to be pursued and higher order thinking, creative, presentation and processing skills to be nurtured and advanced.

References


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