

Unique Needs require a Unique Response –

Differentiating Educational provisions for Highly and Exceptionally Gifted Children

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We are aware that gifted students need to be parented, taught and counselled differently in order for the potential to be nurtured and developed (Morelock, 1997) however if we are to adequately provide this differentiated response to a gifted child's needs we need to be equally aware that within the gifted population there are varying degrees of giftedness and therefore there needs to be differentiation within gifted provisions, not only as compared to the standard programs for other students.

The degrees of giftedness when measured by IQ score, are based on the number of standard deviations a person is from the average. Just as children can have intellectual disability in varying degrees so to children can have high intellectual abilities in varying degrees.

Silverman suggests the following 5 levels of giftedness

Level/Degree	IQ Score	Percentage of Population
Superior	115-130 (1 Std Dev)	1:7
Moderately gifted	130-145(2 Std Dev)	1:40
Highly gifted	145-160(3Std Dev)	1:600
Exceptionally Gifted	160-180(4 Std Dev)	1:10,000
Profoundly Gifted	180+ (5 Std Dev)	1:1,000,000

While this percentage of population is based on a normal bell-curve distribution of intelligence many researchers, Silverman included, based on their clinical and research experience, believe that there are more children in the highly to profoundly gifted range than these figures suggest. (Robinson, Zigler, Gallagher,2000;Silverman,undated)

Understanding the characteristics associated with the various degrees of giftedness is important in providing an educational opportunity for these children. "In the realm of intellectual capacity alone, a profoundly gifted child of IQ 190 differs from his or her moderately gifted classmates of IQ 130 to the same degree that the latter differs from an intellectually handicapped child of IQ 70" (Gross, 2000)

"The Davidson Institute for Talent Development, an organization devoted to the needs of Profoundly gifted students lists the following cognitive characteristics of "Profoundly Gifted" Students

- An extreme need for constant mental stimulation

- An ability to learn and process complex information very rapidly
- A precocious ability to perceive essential elements and underlying structures and patterns in relationships and ideas
- A need to explore subjects in surprising depth, to understand the why and how as well as the what
- An insatiable curiosity: endless questions and inquiries about how things work
- A need for precision in thinking and expression. A student who answers questions with “that depends... is your first clue of extreme intelligence.
- An ability to focus intently on a subject of interest for long periods of time
- An inability to concentrate on a task that is not intellectually challenging, such as those that involve repetition or that present material in bite size pieces.

It is important to also note that, despite many stereotypes profoundly gifted young people come from all ethnic groups, races, economic levels and geographic areas. Like other young people, the profoundly gifted are unique individuals with varied and multifaceted traits:

- Some of them demonstrate mastery in multiple domain areas: others excel in a single domain area
- Some of them have highly developed social skills; others have limited social skills
- Some of them are highly sensitive and suffer terribly from an unkind act or thoughtless remark; others are less affected
- Some of them are perfectionists; others are quite comfortable taking risks and making mistakes
- Some of them are extremely intense and appear to be hyperactive at times” other are not
- Some of them are both highly gifted and learning disabled
- Many are highly verbal, highly mathematical, highly musical, highly athletic, highly inventive, and many excel in other areas”

(Davidson Institute for Talent Development, 2002)

The differences we see amongst gifted children is more than just their cognitive difference, there are also significant affective- social and emotional differences in the way they experience the world. Giftedness is a way of being not just something that relates to academic performance. Like cognitive ability which is different at different levels of giftedness so too are the affective needs. These include

- Over excitabilities or super sensitivities – the heightened way in which the gifted individual experiences their world. “Overexcitabilities can be thought of as an abundance of physical, sensual, creative, intellectual and emotional energy that can result in creative endeavours as well as advanced emotional and ethical development in adulthood. As such, they are a positive force for the gifted, as they feed, enrich, empower and amplify talent. (Piechowski, 1999 cited in Sword , 2001)
- Emotional Intensity - this is the combination of emotions possessed by a gifted person that drives them to understand their world. Winner describes giftedness in three groups of characteristics, Precocity, reaching developmental milestones earlier, Marching to their Own Drummer, learning in a qualitatively different way, and Rage to Master, the intense drive to explore and make sense of their world.

The second two of these groups are descriptive of the emotional intensity that results in a gifted child experiencing the world in a qualitatively different way and how this impacts on everything they do including how they need to learn.

(Dudeney, 2003) "It is the combination of complex and deep thinking with rich and intense emotion that produces the gifted persons' greater potential for high achievement." (Sword, 2001)

- Introversion - While there are generally a greater number of extraverts than introverts in the population within the gifted population there are a greater number of introverts. This the proportion of introverts increases as intelligence increases so that there are more than 75% of the people with IQ above 160 who are introverted. For introverts the world can be an overwhelming place, they need 'me space' where they can draw strength from their inner world.
- The precocity Winner – Rage to Master Model 1996 describes applies not only to early attainment of physical and intellectual milestones like speaking, walking or reading but also to an advanced moral development and also an advanced development of friendship expectations. This precocity leads to asynchrony between the way the highly to exceptionally gifted child sees the world and seeks friendships and how those chronological age peers with whom they spend much of their time see to world or are developmentally ready to behave (Dudeney, 2003).

When supporting or teaching exceptionally gifted children an understanding of the emotional uniqueness can be even more important than identifying specific content needs.

The more appropriate material may still be unsuitable if it doesn't allow for the moral position of the child or take account of their overload due to the world and people impacting on them. We need to temper all programs with an understanding of each child's unique idiosyncrasies.

Once we better understand the difference or asynchrony of the child we are parenting or teaching we need to consider the most appropriate educational approach. " In ordinary elementary school situation, children of IQ 140 waste half their time. Those of above IQ170 waste practically all their time. With little to do, how can these children develop powers of sustained effort, respect for the task, or habits of steady work?" (Gross, 1993,p1, quoting Hollingworth 1942)

The following suggestions are designed as a starting point for designing an appropriate educational opportunity for the highly and exceptionally gifted child. As every learning environment is unique it is not possible to specify exactly what an Individual Educational Program will be without taking in to consideration the environment in which is will be conducted and the individual child's unique needs.

Suggested Educational Provisions and Modifications for Highly and Exceptionally Gifted Children

Acceleration

Full grade acceleration and single subject acceleration are both appropriate and often essential strategies for highly, exceptionally and profoundly gifted students resulting in both intellectual and social and emotional benefits. (Christie, 2001) However acceleration is more than placing a student into a grade ahead of their chronological peers.

Guidelines for acceleration include

- the student should be able to perform in the top of the grade they are being accelerated into
- the receiving teacher should have knowledge of gifted student's needs and be in support of the acceleration
- steps need to be taken to identify any gap in the student's knowledge as a result of not receiving instruction in a particular topic
- the student should be taught a differentiated curriculum appropriate to their advanced learning needs – pre-testing and off level testing are useful tools in determining the differentiation needed and designing an Individual Educational Program
- the student's progress both socially and academically should be monitored on an ongoing and regular basis, with consultation with the student, the parents, the class teacher and the school counsellor or gifted and talented co-ordinator

Individual Educational Program

An individual educational program should reflect the student's advanced cognitive ability, emotional sensitivity affective asynchrony and therefore their need for a different learning experience.

It is likely that there may be some areas of the curriculum where the student has little knowledge and would therefore be working with the rest of the class at least initially.

Pre-testing

One way to help detect the areas in which differentiation is required is the use of pre tests. This is where some assessment tool is administered to the student, and it could be to the whole class, to determine what they already know about the topic. This then allows the teacher to modify the instructional program and therefore extend the students, rather than spend valuable time working through material that is already mastered. By using this technique for the whole class it would draw less attention to a single student and this is generally important for acceptance.

Off Level Testing

In areas where a student shows potential or skills well in advance of his grade the use of off level tests can be useful in determining where to set the curriculum. The following are possible sources for such tests

- The UNSW Competitions, using papers from more senior years(eg Yr 4, 5 or 6)when a student is in yrs 2 or 3.
- In school assessment tools generally used by later classes or stages
- Standardised testing but at a more advanced level.
- Australian Primary Talent Search conducted through GERRIC at UNSW.

It should be remembered that there are likely to be gaps in learning when a child is accelerated, this does not mean that acceleration is not necessary, just that the student needs to receive instruction in those areas not already mastered. Generally, the student will learn the information or skill quickly, as this is a characteristic of gifted learners. (Winner, 1996)

Once the appropriate level is established, the differentiation, when necessary, can occur in several ways

- where there are several students requiring modification in content, pace, breadth or depth these students can be clustered and work on different material to that of the rest of the class, while still being involved in the class.
- If there is only one student in a particular topic or subject requiring the differentiation this could happen
 - in the class undertaking different work,
 - in a withdrawal situation working with another teacher or mentor, or through an independent study or on internet/virtual learning activities
 - by subject acceleration into a more senior stage where the work is more appropriate to his needs
 - in schools offering vertical curriculum this could be just a matter of wise subject selection

It is important that these modifications are instead of the standard classroom work, not in addition to them.

The reason for the changes are that the student has already mastered the standard classroom work or will learn it very quickly and therefore is ready to attempt something more challenging and appropriate to his level of development. They must be relevant and of value in a systematic learning plan, not just ad hoc, unrelated bits and pieces.

It is important to be aware that this is an ongoing process not a one off answer. The pace of learning and mastery will continue to be faster, so merely being introduced to material earlier will not be enough.

Emotional Needs

Gifted children often experience intense sensitivities to their world. These intense responses, or over excitabilities as described by Dabrowski mean that their experiences are different to those of most people, but 'normal for gifted '. These over excitabilities can be physical, sensory, emotional, cognitive and imaginal. (Piechowski, 2002).

Designing responses to these intensities is also an important part of modifying the learning environment.

Some of the ways in which a learning environment can be modified to respond to the emotional needs of highly and exceptionally gifted children include accommodating for their often reflective or introverted personality style by giving sufficient space and time for them to explore their ideas. Creating 'safe havens' where it is OK for students who would like to be by themselves to think, work, read, day dream or to unwind from the 'in your face', hustle and bustle of the general school experience. Without this space/time to refuel, the introvert will be overwhelmed by the world and not be able to operate at their best. These 'safe-havens' need to be seen as a positive option amongst the school community. Too often, children who choose to spend time alone, in the library or playground are seen as having a problem. Their behaviour is interpreted as them having no choice because they appear to have no friends – in actual fact it is often the only time in the school day when they do have choice.

The time element of our average school day also offers some problems and challenges for the student with a complex, high functioning brain. The relatively short time segments that most subjects are taught in can be both frustrating and non productive to a child who displays the characteristics listed above in relation to the depth, complexity and sophistication of their intellectual processing.

Too often the short time frame or simple level of the material means they are not even engaged or if they are then frustration follows when their focus is broken, because the bell rings etc.

"Exceptionally gifted children typically learn by total immersion. Whatever subject claims their attention becomes a virtual obsession until they feel they have mastered it or have gained as much from it as they need. Their attention doesn't have to be concentrated into one day-long marathon, but it does need to be given time to function normally."(Tolan, 1985)

In the school setting this need provides a challenge for educators. However, if we look at the time the child 'buys' by already knowing or mastering some of the regular curriculum, as identified by pre-testing and off level testing, we identify where we can find the time to allow this immersion for at least part of the school day or week.

As parents and teachers supporting gifted children it is important that we focus on both their intellectual needs and their emotional needs in a balanced way. For healthy development these are both interdependent. "their emotional lives impact on their intellectual achievements as emotions are critical to the learning process" (Sword, 2001, p.25) and having their intellectual needs met is critical to how they see themselves, it is a part of who they are and therefore impacts on their self image and self esteem, both of which are important in the full development of them as individuals.

These suggestions have touched on the range of modifications and provisions that may be needed in order to create a supportive, responsive learning environment for highly to profoundly gifted children. It is possible that all these provisions may not be able to be provided by a school and that a combination of school enrolment and mentoring or outside school education is the best solution.

" the higher the deviation above the mean, the greater the number of possible combinations and recombinations of abilities. No one highly gifted child can be expected to be like any other child with the same score. Therefore no single-focus program, whether acceleration or any other design, can hope to adequately serve a population with such potentially complex profiles" (Lewis 1984 quoted by Feldhusen p179)

A useful resource in planning for the educational needs of these children is *Re-forming Gifted Education – Matching the Program to the Child* By Dr. Karen Rogers, 2002.

References

Davidson Institute for Talent Development (2002) About Profoundly Gifted Young People (www.ditd.org)

Christie, W., 2001, *Who's Afraid of Acceleration?* Gifted, January/February 2001, Issue 117 P30-32

Dudenev, H., 2003, *Rage to Master – Ellen Winner Model (1996)*, Gifted, February 2003 Issue 127 p 13 –14

Feldhusen, Van Tassel-Baska, Seeley, 1989, *Excellence in Educating the Gifted*, Love, Colorado

Gross, M, 1993, *Exceptionally Gifted Children*, Routledge. London. 1993

Gross, M, 2000, *Exceptionally and Profoundly Gifted Students: An underserved Population*. Understanding Our Gifted. Vol 12, NO 2.pp 3-9

Morelock, M.J., 1995 *Giftedness: A View from Within*, Gifted June 1995, Issue 89, p5 – 9

Piechowski, M. 2002, *Experiencing in a Higher Key: Dabrowski's Theory of and for the Gifted*, Gifted, September 2002, Issue 125 p1, 30 –33

Robinson, N.M., Zigler, E., Gallagher J.J., 2000 *Two Tails of the Normal Curve*, American Psychologist, December p1413- 1424

Silverman, L.K., (Undated), *Lost: One IQ Point Per Year for the Gifted*,

Silverman, L.K.(ed), 1993, *Counseling the Gifted & Talented*, ,Love, Colorado

Sword, L, 2001, *Understanding the emotional, intellectual and social uniqueness of growing up gifted*, Gifted, June/July Issue 119, p 1, 23 – 26

Tolan, S.S., 1985, *Stuck in Another Dimension: The Exceptionally gifted child in school*, Gifted Child Today, Nov-Dec

Winner, E. (1996). *Gifted Children: Myths and Realities*. New York, Basic Books