

GIFTEDNESS

In this Section the following information is presented-

A brief overview of the literature

Identification and assessment of gifted students

- Informal assessment including checklists
 - Parent nomination form
 - Multiple intelligence parent/teacher inventory
 - Teacher nomination form
- Formal assessment

Teaching gifted students

- Instructional orientation
 - Some essentials when teaching gifted and talented students
 - Educational arrangements and administrative provisions
 - Acceleration
 - Enrichment/Extension

See relevant information in **Categories of Exceptionality** Section.

A BRIEF OVERVIEW OF THE LITERATURE

Like other areas of Special Education, terminology and definitions concerning giftedness have changed over time. This reflects advances in education and psychology, a constant changing view of society and a different understanding of children and their needs.

By the beginning of the 1970s, giftedness had changed from a unitary concept based on abstract reasoning and thought to a multifaceted concept which included intelligence, aspects of creative thinking and creative productions and school performance.

In the USA, this changing view of giftedness was incorporated in a report entitled "Education of Gifted and Talented" (Marland, 1972) which advocated that "gifted and talented children are those identified by professionally qualified persons who, by virtue of their outstanding abilities, are capable of high performance". It was claimed that children capable of high performance included those with demonstrable achievement and/or potential in any of the following areas, singly or in combination:

- General intellectual ability
- Specific academic aptitude
- Creative or productive thinking
- Leadership ability
- Visual and performing arts and
- Psychomotor ability (Marland, 1972, p 10)

As the Marland report became more widely known, there was increasing acceptance of its underlying philosophy by educators who sought a broader conceptualisation than the narrower views of earlier years. School systems considered that this wider perspective of specific ability areas provided the basis for school programs and permitted the inclusion of greater numbers of students. This view was particularly appealing to Australian education authorities who were seeking to extend the concept of giftedness and to make it less elitist. It was not surprising therefore that when state policies on gifted education were devised between 1978 and 1985, the Australian states and territories were significantly influenced by Marland's approach.

The following brief review of the literature attempts to highlight key developments by prominent writers in the field. The review attempts to trace the chronology of developments.

Sternberg (1981, 1982, 1985) advanced an information processing approach to intelligence and argued that gifted persons were adept at aspects of metacognition, (i.e., the awareness of one's own thought processes). Six components of metacognition were identified-

- Inference
- Mapping
- Application
- Comparison
- Justification
- Response

Sternberg (1993) proposed a Pentagonal Implicit theory of giftedness highlighting the following five criteria-

- the excellence criterion
- the rarity criterion
- the productivity criterion
- the demonstrability criterion
- the value criterion

More recently, Sternberg (2005) introduced the WICS model of giftedness. WICS being an acronym for-

- Wisdom
- Intelligence
- Creativity
- Synthesising

Sternberg stressed that without synthesis of the three attributes “someone can be a decent contributor to society, and perhaps a good one, but never a great one” (p.327).

Renzulli (1978, 1983, 2005) proposed a Three-ring Conception of giftedness-

- Well above average ability (general and special)
- Task commitment (motivation, perseverance, endurance, dedication)
- Creativity (originality, constructive ingenuity, divergent thinking)

Renzulli and associates have produced an excellent set of questionnaires for parents and teachers to assist in the identification of gifted students.

Gardner (1985) introduced the concept of multiple intelligence which included seven categories-

- Verbal/Linguistic Intelligence
- Logical/Mathematical Intelligence
- Visual/Spatial Intelligence
- Bodily/Kinaesthetic Intelligence
- Musical/Rhythmic Intelligence
- Interpersonal Intelligence
- Intrapersonal Intelligence

More recently, an additional category has been introduced-

- Naturalist Intelligence

This conceptualisation has led to a collection of guidelines and practical educational activities and strategies considered to be valuable by classroom teachers.

SUGGESTED TEACHING ACTIVITIES / STRATEGIES FOR THE EIGHT INTELLIGENCES

VERBAL/LINGUISTIC

-
- Reading
- Vocabulary
- Formal Speech
- Journal/Diary Keeping
- Creative Writing
- Poetry
- Verbal Debate
- Impromptu Speaking
- Humour/Jokes
- Storytelling

LOGICAL/MATHEMATICAL

- Abstract Symbols/Formulas
- Outlining
- Graphic Organisers
- Number Sequences
- Calculation
- Deciphering Codes
- Forcing Relationships
- Syllogisms
- Problem Solving
- Pattern Games

VISUAL/SPATIAL

- Guided Imagery
- Active Imagination
- Colour Schemes
- Patterns/Designs
- Painting
- Drawing
- Mind-Mapping
- Pretending
- Sculpture
- Pictures

BODILY/KINAESTHETIC

- Folk/Creative Dance
- Role Playing
- Physical Gestures
- Drama
- Martial Arts
- Body Language
- Physical Exercise
- Mime
- Inventing
- Sports Games

MUSICAL/RHYTHMIC

- Rhythmic Patterns
- Vocal Sounds/Tones
- Music composition/Creation
- Percussion Vibrations
- Humming
- Environmental Sounds
- Instrumental Sounds
- Singing
- Tonal Patterns
- Music Performance

INTERPERSONAL

- Giving Feedback
- Intuiting Others' Feelings
- Cooperative Learning Strategies
- Person-to-Person Communication
- Empathy Practices
- Division of Labour
- Collaboration Skills
- Receiving Feedback
- Sensing Others' Motives
- Group Projects

INTRAPERSONAL

- Silent Reflective Methods
- Metacognitive Techniques
- Thinking Strategies
- Emotional Processing
- Mindfulness Practices
- Focusing/Concentration Skills
- Higher-Order Reasoning
- Complex Guided Imagery
- "Centering" Practices

NATURALIST

- Time outdoors
- Nature table in class
- Studying plants and animals
- Practical science experiments
- Observing birds/animals
- Caring for animals
- Collecting plants and insects
- Mime
- Inventing

Sources:

Boggeman, S., Hoerr, T., and Wallach, C. (Eds)., (1998). *Succeeding with multiple intelligences: Teaching through the personal intelligences*. Hawker Brownlow Education.

Gardner, H. (1999). *Intelligence reframed :Multiple intelligences for the 21st century*. New York: Basic Books.

Lazear, D. (1991). *Seven ways of teaching: The artistry of teaching with multiple-intelligences*. Australia: Hawker Brownlow.

Gagne (1985, 1993, 2005) proposed a Differentiated Model of Giftedness and Talent, arguing that the terms gifted and talented should not be used synonymously and he proposed the following distinction-

"Giftedness corresponds to competence which is distinctively above average in one or more domains of ability, talent refers to performance which is distinctively above average in one or more fields of higher performance". (1985, p.108).

Feldhusen (1986) contended that there is an underlying basis for giftedness but that it does not consist of a single variable or entity. It is rather a complex set of variables "which may emerge as powerful behavior, creative production or performance". Building on the work of others, Feldhusen maintained that giftedness consists of-

- superior general abilities
- special focused aptitudes and/or talents
- the acceptance that high level creative achievement or production is personally achievable; and the
- motivation to learn and achieve.

Feldhusen concluded that:

"The ability to think well, to process information effectively, to achieve insights and solve problems, and to use efficient metacognitive processing systems, as proposed by Sternberg, is a part of the complex bundle called general abilities. It underlies giftedness in all fields". (Feldhusen, 1986, pp. 35-36).

Silverman (1979, 1981, 1986, 1993) added a new dimension to definitions of giftedness when she highlighted the uneven development of gifted children, which she called "asynchronous development". Definitions of gifted that include "asynchronous development" consider not only IQ and talent, but also emotional traits of gifted children, such as heightened sensitivity.

The statement developed by the Columbus Group (1991) is an example of this type of definition.

"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 modifications in parenting, teaching and counselling in order for them to develop optimally". (Columbia Group, 1991, p.1).

Through two major books, *Counselling the Gifted and Talented* (1979, 1993) and *Upside-Down Brilliance: The Visual-Spatial Learner* (1981) and prolific writing of articles on giftedness (see her website), Silverman continues to explore such topics as the asynchronous development of cognitive and emotional abilities in gifted children, visual/spatial intelligence and giftedness and accompanying disabilities.

Dabrowski (in Silverman, 1979) wrote on the emotional life of gifted and creative persons. Dabrowski considered that common traits of gifted individuals such as perfectionism, sensitivity, intensity, integrity and passion are expressions of what he called "overexcitabilities" or "supersensitivities". Dabrowski hypothesised five forms of "overexcitabilities" -

- psychomotor
- sensual
- imaginational
- intellectual
- emotional

In my psycho-educational reports, I include the following statement and list of personality / emotional traits that I have observed in my work with gifted students over the years.

"Teachers need to be aware that "gifted and talented" students often share common personality/emotional traits. Some of these can act as facilitators of high academic achievement while others can result in learning/teaching frustration and tension (for both teacher and pupil) including the following-

- sensitive
- intensive
- desire for perfection
- low tolerance for ambiguity
- frustrated with rote learning and slow pacing
- boredom with repetitious work
- tunes out if disinterested
- high self-expectations
- egocentric
- dominates social situations
- emotionally labile
- challenging
- strong sense of justice
- non-conformism
- sensitive to criticism"

The Victorian DEECD has outlined their policy on the education of gifted students in the following three publications-

(1996) *Bright Futures Resource Book: Education of Gifted Students*.

(1998) *Gifted Students: Assessment and Reporting Support Material*.

(1999) *Bright Futures: A Guide for Strategic Action to Support Gifted Students 2000 - 2005*.

The Bright Futures policy proposed a comprehensive approach to the education of gifted students in government schools. The policy stated that:

"...there are various definitions of "giftedness". These focus on intellectual and creative giftedness and also on areas such as dance, leadership, music and sport. Terms often used when describing very able students include "exceptionally talented" or "highly creative" or "of high intellectual potential" or "high achievers". It is difficult to isolate a single definition of giftedness that encompasses the broad spectrum of human abilities and accounts for culture, class, gender and domain. Generally the types of definitions that have been proposed by researchers and education authorities move towards a broad concept of giftedness over a wide range of human endeavours.

Some students have a potential to achieve that is not always reflected in their school work or through the school's assessment procedures. Further, many gifted students are at risk of underachieving in classrooms every day if their intellectual and other potential is not nurtured". (**Bright Futures Resource Book: Education of Gifted Students**, 1996, p.1).

IDENTIFICATION AND ASSESSMENT OF GIFTED STUDENTS

INFORMAL ASSESSMENT

Informal assessment often involves information gathered from-

- direct observations
- discussions with the student
- parent and teacher checklists
- student's self-report

A range of checklists has been used to assist teachers and parents identify potentially gifted and talented children. A selection of such checklists is presented below. In most cases, I have made modifications to the checklists basically to increase their current relevance and usefulness.

In my private practice, I have used the following checklists to gain information from parents and teachers to supplement formal test results. These checklists are valuable in providing additional evidence to support the identification of gifted and talent students and to provide instructional and management guidelines and directions.

The "original" checklists have been substantially changed, with new items added, some original items eliminated and all items re-organised and classified to make the checklists more comprehensive, relevant and useful.

The first checklist, originally reported in Davis and Rimm (1985) and included in *The Bright Futures Resource Book: Education of Gifted Students*, Victorian Department of Education (1996), has been substantially modified and updated.

TEACHER NOMINATION FORM

INSTRUCTIONS

Compared to the typical student in your class, please circle the appropriate number for each item which best describes the student.

- 5 Has this trait to a high degree
- 4 Has this trait more than the typical student
- 3 Compares with the typical student
- 2 Has this trait less than the typical student
- 1 Lacks this trait

COGNITIVE AND THINKING DEVELOPMENT					
Has superior reasoning powers	5	4	3	2	1
Thinks quickly	5	4	3	2	1
Has advanced levels of intellectual curiosity	5	4	3	2	1
Asks probing question	5	4	3	2	1
Enjoys complicated games and puzzles	5	4	3	2	1
Continually questions the status quo	5	4	3	2	1
Recalls facts easily	5	4	3	2	1
Is very imaginative	5	4	3	2	1
Shows an extensive general knowledge	5	4	3	2	1

LANGUAGE DEVELOPMENT					
Learned to talk at an early age	5	4	3	2	1
Possesses a superior vocabulary	5	4	3	2	1
Demonstrates clear and fluent expression	5	4	3	2	1
Commands and holds attention when speaking	5	4	3	2	1
Uses sophisticated sentence structure	5	4	3	2	1
Likes to talk and discuss issues	5	4	3	2	1
Makes up elaborate stories and fantasies	5	4	3	2	1
Is uninhibited in expression of opinions	5	4	3	2	1
SPECIAL ABILITIES					
Has advanced physical co-ordination and body control	5	4	3	2	1
Has advanced drawing/painting ability	5	4	3	2	1
Has advanced musical ability	5	4	3	2	1
SOCIAL DEVELOPMENT					
Has advanced social skills	5	4	3	2	1
Gets on well with peers	5	4	3	2	1
Is a leader	5	4	3	2	1
Is friendly and mixes well	5	4	3	2	1
Likes "grown-up" things and to be with older people	5	4	3	2	1
Tends to dominate others if given the chance	5	4	3	2	1
Prepared to take social risks	5	4	3	2	1
Plays co-operatively with same aged peers	5	4	3	2	1
Likes to play with older children	5	4	3	2	1
Is assertive in social situations	5	4	3	2	1
Is popular with the other students	5	4	3	2	1

EMOTIONAL DEVELOPMENT					
Is sensitive to relationships	5	4	3	2	1
Is sensitive to criticism	5	4	3	2	1
Is sensitive to the feelings of others	5	4	3	2	1
Is emotionally mature for age	5	4	3	2	1
Has a heightened sensitivity to moral and ethical issues	5	4	3	2	1
Shows intensity of feelings	5	4	3	2	1
Experiences the extremes of emotions	5	4	3	2	1
Shows great empathy	5	4	3	2	1
Demonstrates frequent frustration	5	4	3	2	1
Appears emotionally vulnerable	5	4	3	2	1

ATTENTION, CONCENTRATION AND TASK COMMITMENT					
Has marked ability to focus and sustain attention	5	4	3	2	1
Has high powers of concentration and persistence	5	4	3	2	1
Demonstrates high task commitment	5	4	3	2	1
Demonstrated high achievement motivation	5	4	3	2	1
Has a broad attention span	5	4	3	2	1
Is impulsive	5	4	3	2	1

LEARNING ABILITIES					
Demonstrated early reading skills	5	4	3	2	1
Is an avid reader	5	4	3	2	1
Demonstrated early maths skills	5	4	3	2	1
Demonstrates superior maths skills	5	4	3	2	1
Demonstrates advanced spelling and written expression skills	5	4	3	2	1
Strives for perfection	5	4	3	2	1
Shows intensity of effort	5	4	3	2	1
Enjoys advanced learning opportunities	5	4	3	2	1
Learns easily and readily	5	4	3	2	1
Quickly masters new skills	5	4	3	2	1
Has high level of curiosity	5	4	3	2	1
Is an independent learner	5	4	3	2	1
Shows initiative and originality in school work	5	4	3	2	1
Follows complex directions easily	5	4	3	2	1
Reveals frustration with rote learning and slow pacing	5	4	3	2	1
Shows low tolerance for ambiguity	5	4	3	2	1
Expresses boredom with learning	5	4	3	2	1
Underachieves academically	5	4	3	2	1

HOBBIES AND INTERESTS					
Has a wide range of hobbies	5	4	3	2	1
Has a wide range of interests	5	4	3	2	1
Has a deep and passionate involvement in hobbies/interests	5	4	3	2	1
Shows great interest in the future and/or world events/problems	5	4	3	2	1
Enjoys using a computer	5	4	3	2	1
Enjoys playing with electronic games	5	4	3	2	1
Can mimic the way others speak, walk and/or gesture	5	4	3	2	1

OTHER ATTRIBUTES					
Displays keen sense of humour	5	4	3	2	1
Shows initiative	5	4	3	2	1
Is independent and self-sufficient	5	4	3	2	1
Sets high goals/standards	5	4	3	2	1
Possesses keen powers of observation	5	4	3	2	1

PARENT NOMINATION FORM

INSTRUCTIONS

Compared to the typical child in your neighbourhood, please circle the appropriate number for each item which best describes your child.

- 5 Has this trait to a high degree
- 4 Has this trait more than the typical child
- 3 Compares with the typical child
- 2 Has this trait less than the typical child
- 1 Lacks this trait

COGNITIVE AND THINKING DEVELOPMENT					
Has superior reasoning powers	5	4	3	2	1
Thinks quickly	5	4	3	2	1
Has advanced levels of intellectual curiosity	5	4	3	2	1
Asks probing questions	5	4	3	2	1
Learns easily and readily	5	4	3	2	1
Enjoys complicated games and puzzles	5	4	3	2	1
Continually questions the status quo	5	4	3	2	1
Has keen powers of observation	5	4	3	2	1
Recalls facts easily	5	4	3	2	1
Is very imaginative	5	4	3	2	1

LANGUAGE DEVELOPMENT					
Learned to talk at an early age	5	4	3	2	1
Possesses a superior vocabulary	5	4	3	2	1
Has clear and fluent expression	5	4	3	2	1
Uses sophisticated sentence structure	5	4	3	2	1
Commands and holds attention when speaking	5	4	3	2	1
Likes to talk and discuss issues	5	4	3	2	1
Makes up elaborate stories and fantasies	5	4	3	2	1
Is uninhibited in expression of opinions	5	4	3	2	1
Learned to read at an early age	5	4	3	2	1
Is an avid reader	5	4	3	2	1

SPECIAL ABILITIES					
Has advanced physical co-ordination and body control	5	4	3	2	1
Has advanced drawing/painting ability	5	4	3	2	1
Has advanced musical ability	5	4	3	2	1
Has advanced ability with numbers	5	4	3	2	1

SOCIAL DEVELOPMENT					
Has advanced social skills	5	4	3	2	1
Is friendly and mixes well	5	4	3	2	1
Likes "grown-up" things and to be with older people	5	4	3	2	1
Tends to dominate others if given the chance	5	4	3	2	1
Prepared to take social risks	5	4	3	2	1
Plays co-operatively with same aged peers	5	4	3	2	1
Likes to play with older children	5	4	3	2	1
Is assertive in social situations	5	4	3	2	1
Hides giftedness to "fit in" with friends	5	4	3	2	1
Is a leader	5	4	3	2	1

EMOTIONAL DEVELOPMENT					
Is sensitive to relationships	5	4	3	2	1
Is sensitive to criticism	5	4	3	2	1
Is sensitive to the feelings of others	5	4	3	2	1
Is emotionally mature for age	5	4	3	2	1
Has a heightened sensitivity to moral and ethical issues	5	4	3	2	1
Shows intensity of feelings	5	4	3	2	1
Experiences the extremes of emotions	5	4	3	2	1
Shows great empathy	5	4	3	2	1
Shows emotional vulnerability	5	4	3	2	1
Demonstrates good self-esteem	5	4	3	2	1

ATTENTION, CONCENTRATION AND TASK COMMITMENT					
Has marked ability to focus and sustain attention	5	4	3	2	1
Has high powers of concentration and persistence	5	4	3	2	1
Demonstrates excellent task commitment	5	4	3	2	1
Demonstrates high levels of achievement motivation	5	4	3	2	1
Has a broad attention span	5	4	3	2	1

HOBBIES AND INTERESTS					
Has a wide range of hobbies	5	4	3	2	1
Has a wide range of interests	5	4	3	2	1
Has a deep and passionate involvement in hobbies/interests	5	4	3	2	1
Shows great interest in the future and/or world events/problems	5	4	3	2	1
Enjoys using a computer	5	4	3	2	1
Enjoys playing with electronic games	5	4	3	2	1
Can mimic the way others speak, walk and/or gesture	5	4	3	2	1

OTHER ATTRIBUTES					
Strives for perfection	5	4	3	2	1
Displays a keen sense of humour	5	4	3	2	1
Shows initiative	5	4	3	2	1
Is independent and self-sufficient	5	4	3	2	1
Sets high goals/standards	5	4	3	2	1
Possesses good powers of observation	5	4	3	2	1

List your child's special hobbies or interests.

Comment on your child's special talents, competencies, accomplishments.

Comment on any significant issues/problems/challenges your child has experienced.

What are your major concerns about your child?

Of course, these checklists are not formal assessment instruments in the sense that they provide normative data, i.e., age/grade standardised scores. However, they play a vital role in the identification of gifted children by enabling important behaviours to be observed and rated. The ratings from most checklists cannot be aggregated in any meaningful statistical sense. However, the checklists have the following very useful functions-

Firstly, they provide teachers, parents and other professionals with a list of abilities and skills considered important in child and adolescent development. Hence, they help guide raters in observing relevant behaviours.

Secondly, valuable information can be provided by those who “know” children best-their parents and teachers. Empowering parents and teachers in the identification process is both wise and important.

Thirdly, by noting the frequency of exceptional abilities, i.e., rating 5s, “potentially” gifted students can be identified.

Fourthly, important trends and patterns in ratings can be observed. Developmental strengths and weaknesses can be discerned. Low ratings might indicate relatively underdeveloped areas that could receive special attention.

To reiterate, the checklists do not provide norm-referenced data. However, they do provide valuable information to supplement the results obtained from formal, standardised tests.

There are numerous multiple intelligences inventories and checklists, most based directly on the writings of Gardner (1987, 1993, 1999). Perhaps Lazear’s checklists (1991, 1997) are best known with the Victorian Education Department’s Bright Futures: Resource Book-Education of Gifted Students (1996) providing details.

Again, substantial changes have been made to the original inventories mainly through valuable feedback from parents and teachers.

MULTIPLE INTELLIGENCES PARENT/TEACHER INVENTORY

The purpose of this checklist is to assist the parent/teacher determine how their child/student acquires knowledge, skills and information. Drawing on your knowledge, experiences and observations of the child/student, please circle the appropriate number for each item which best describes the child/student-

- 5 Has this trait to a high degree
- 4 Has this trait more than the typical child
- 3 Compares with the typical child
- 2 Has this trait less than the typical child
- 1 Lacks this trait

Verbal-Linguistic Behaviours					
Uses superior words to describe ideas and experiences	5	4	3	2	1
Likes to play with sounds and words, e.g., rhymes, jokes	5	4	3	2	1
Enjoys writing stories	5	4	3	2	1
Enjoys playing word games	5	4	3	2	1
Enjoys talking	5	4	3	2	1
Is an avid reader for pleasure and information	5	4	3	2	1

Logical-Mathematical Behaviours					
Likes to solve puzzles and play computer/electronic games	5	4	3	2	1
Can solve mental maths problems	5	4	3	2	1
Likes to work with numbers and figures	5	4	3	2	1
Sees number patterns and relationships quickly and easily	5	4	3	2	1
Creates charts or diagrams to solve logic problems	5	4	3	2	1
Can follow complex lines of reasoning and thought processes	5	4	3	2	1

Visual-Spatial Behaviours					
Likes drawing and painting	5	4	3	2	1
Has a good sense of directions and can understand maps	5	4	3	2	1
Likes to construct models	5	4	3	2	1
Creates inventions, toys or games with common things/objects	5	4	3	2	1
Likes playing with constructional material like lego/technic, blocks, mechano etc	5	4	3	2	1
Likes to play chess and/or mind games	5	4	3	2	1

Bodily-Kinaesthetic Behaviours					
Expresses emotions through facial expressions and body movements	5	4	3	2	1
Creates original movements to express ideas	5	4	3	2	1
Has good sporting talent	5	4	3	2	1
Enjoys dance, gymnastics, athletics or karate lessons/ sessions	5	4	3	2	1
Has a high level of balance and co-ordination	5	4	3	2	1
Interprets songs, stories or poems in original ways through body movements and expressions	5	4	3	2	1

Musical-Rhythmic Behaviours					
Plays a musical instrument	5	4	3	2	1
Has a sense of rhythm and sound	5	4	3	2	1
Likes to sing, hum, whistle	5	4	3	2	1
Has a good memory for songs and tunes	5	4	3	2	1
Is aware and sensitive to sounds	5	4	3	2	1
Likes to listen to music	5	4	3	2	1

Inter-personal Behaviours					
Is sensitive to the moods of others	5	4	3	2	1
Can work co-operatively in a group	5	4	3	2	1
Likes team games/activities	5	4	3	2	1
Is kind and friendly	5	4	3	2	1
Demonstrates empathy and respect	5	4	3	2	1
Can establish and maintain good peer relationships	5	4	3	2	1

Intra-personal Behaviours					
Enjoys quiet or solitary activities	5	4	3	2	1
Is self-assured	5	4	3	2	1
Likes to keep diaries and collections of interesting items	5	4	3	2	1
Controls emotions	5	4	3	2	1
Demonstrates honesty and integrity	5	4	3	2	1
Is individualistic and independent	5	4	3	2	1

Naturalist Behaviour					
Uses a microscope/telescope	5	4	3	2	1
Interested in the solar system	5	4	3	2	1
Interested in insects, animals and birds	5	4	3	2	1
Collects artefacts, shells, fossils, gemstones, rocks, etc	5	4	3	2	1
Interested in nature DVDs, videos, films, documentaries	5	4	3	2	1
Enjoys a trip to the zoo/aquarium/sanctuaries	5	4	3	2	1

Because of the planning and organisation of this checklist, it is possible to identify, albeit at a surface level, an order of preferences for specific categories of “intelligences” and the unique profile of preferences for a particular student. For example, the category/categories with the greatest number of high ratings suggest the major “talent” area(s). The profile of preferences has important educational and instructional implications for a student.

A CHECKLIST TO IDENTIFY GIFTED UNDERACHIEVERS

Observe and interact with the child over a period of at least two weeks to determine if he or she possesses the following characteristics. If the student exhibits ten or more of the listed traits, *including all that are marked with an asterisk*, further testing is advised to establish whether he or she is a gifted underachiever.

Student's Name _____ Year level _____

Date _____ Age _____

✓	Characteristic
	* Poor test performance
	* Achieving at or below year-level expectation in one or all of the basic skill areas: reading, mathematics
	* Daily work frequently incomplete or poorly done
	* Superior comprehension and retention of concepts when interested
	* Vast gap between qualitative level of oral and written work
	Exceptionally large repertoire of factual knowledge
	Vitality of imagination, creative
	Persistent dissatisfaction with work accomplished, even in art
	* Seems to avoid trying new activities to prevent imperfect performance; evidences perfectionism, self-criticism
	Shows initiative in pursuing self-selected projects at home
	* Has a wide range of interests and possible special expertise in an area of investigation and research
	* Evidences low self-esteem in tendency to withdraw or be aggressive in the classroom
	Does not function comfortably or constructively in a group of any size
	Shows acute sensitivity and perceptions related to self, others and life in general
	Tends to set unrealistic self-expectations; goals too high or too low
	Dislikes practice work or drill for memorisation and mastery
	Easily distracted; unable to focus attention and concentrate on tasks
	Has an indifferent or negative attitude towards school
	Resists teacher efforts to motivate or discipline behaviour in class
	Has difficulty in peer relationships; maintains few friendships

Source:

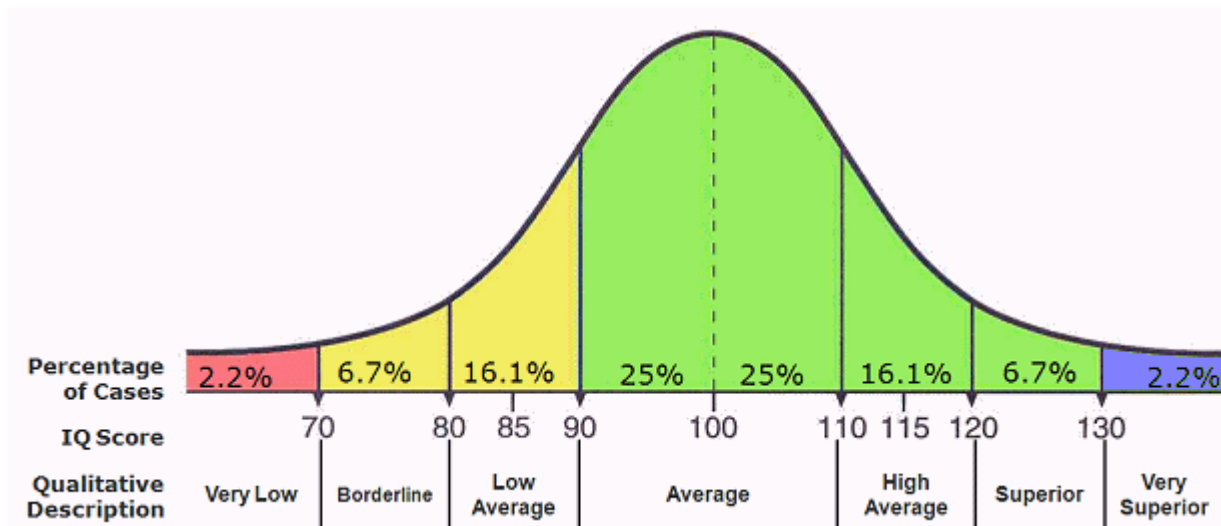
Whitmore, J. (1980) *Giftedness, Conflict and Underachievement*. Allyn and Bacon, Boston.

FORMAL ASSESSMENT

The formal assessment of giftedness centres on the administration of an intelligence test. As high intellectual ability is universally considered to be the major defining aspect of giftedness, a student's performance on an individually administered, widely accepted and respected comprehensive measure of general intellectual ability is assessed.

While the actual level of performance considered to represent high intellectual ability can vary, it is generally accepted that an IQ score of 130 or above is required. On the normal curve, an IQ score of 130 can be seen to represent a position two standard deviations above the mean, or the top 2 to 3% of the population.

The Normal Curve shown below provides a diagrammatic representation of IQ levels, percentile rankings and standard deviation levels. The area in blue represents the category of Intellectual Giftedness which accounts for approximately 2.2% of the population.



An intelligence test profile and report can provide more information than simple IQ scores. Valuable information can be gleaned from the subtests scores and the student's actual responses and test behaviour. Such information can be used to identify relevant characteristics of giftedness and provide useful guidelines for instruction.

Once the criterion of an IQ = 130 or above has been established, it is important that other defining characteristics are also taken into consideration including-

- scholastic achievement
- special abilities and talents
- creative and productive thinking ability
- task commitment
- interests and hobbies

Hence, a final designation of giftedness should only be made following the collection of a very comprehensive set of data, both informal and formal.

To reiterate some important points made about other categories of students with special needs.

Gifted students are not a homogeneous group, they possess their own unique set of attributes, characteristics and aptitudes and require an educational and instructional program specifically designed to meet their individual needs. Specifically, the following points need to be understood-

Gifted students do not form a homogeneous group.

Every gifted student possesses a unique combination of abilities, aptitudes and characteristics.

No gifted student possesses all the characteristics listed on checklists.

Gifted students vary according to their unique blend of the commonly occurring characteristics and the intensity of those characteristics.

There is a wide range of individual difference among gifted students.

There is a danger in stereotyping gifted students according to commonly occurring characteristics, for example, attributing to a particular student a constellation of generally anticipated characteristics beyond those that have been directly observed or assessed.

TEACHING GIFTED STUDENTS

INSTRUCTIONAL ORIENTATIONS

With students having learning problems, the focus of attention and instruction is obviously on the underdeveloped academic area(s); usually one or more of the basic curriculum areas of reading, spelling, written expression and mathematics for primary school students. For secondary school students, in addition, to the basic academic areas, the other curriculum areas could need attention.

With gifted and talented students, the usual approach is to provide advanced/accelerated learning opportunities to match advanced intellectual abilities. Key educational and instructional variables such as the pace, type and level of instruction and the student's cognitive and learning styles are important considerations.

Evidence shows that some gifted and talented students experience significant academic underachievement. In these cases, the approach should have two aims-firstly, to develop the area of underachievement through structured teaching and specific instructional strategies and secondly, to extend the areas of competence with enrichment/accelerated learning opportunities.

The first aim is more likely to involve explicit, expository, instruction; the second aim is more likely to involve discovery or heuristic learning experiences.

The combination of giftedness and a learning disability is a growing topic of interest and concern. The instructional strategies recommended for learning disabled students should be used with this group of students.

(See **Learning Disability Section**)

SOME ESSENTIALS WHEN TEACHING GIFTED AND TALENTED STUDENTS

Braggett (1994) provides a summary of cardinal rules the regular classroom teacher should follow in teaching gifted and talented students. These include the following-

- allow gifted /talented students to be **different**-they should be permitted to work more **quickly** or more **deeply** on scheduled work;
- permit them to **forge ahead** teacher assistance;
- set **different** work at a **higher** level, requiring some form of problem solving or evaluation in open-ended exercises;
- allow them to pursue their own academic/creative **interests** after normal work has been completed (or sometimes in place of normal work);
- teach them to work **independently**, to develop their own learning styles and to be responsible for their own decisions;
- set **high standards** (poor quality or sloppy work is not acceptable);
- allow them to work with other children of **like abilities**; and
- apply Sternberg's (1981) statements on **metacognition** (the awareness of one's own thought processes) and gifted students; i.e., that gifted students (with training) are excellent at:
 - selecting **appropriate ways** of solving problems;
 - electing their own **encoding** or **learning** style,
 - **checking** or monitoring the solution to a problem, and
 - **communicating** a solution.

The teacher can provide for able students in the regular classroom in some of the following ways:

Accepting that gifted and talented students have needs and sensitivities that require recognition and support.

Adopting a positive, supportive, encouraging and caring attitude towards gifted and talented students.

Providing an atmosphere of trust, acceptance and respect.

Providing open-ended activities that require divergent thought and production.

Broadening the curriculum by encouraging different topics or subjects outside the normal curriculum; these may be interdisciplinary in nature and may require independent or small group study at a deeper level.

Devising individualised programmes and encouraging independent work that has a specific purpose.

Ensuring that each student's work is challenging-going beyond simple data collection and description and stressing the skills of analysis, synthesis, comparison, evaluation, inference, forecasting and judgement. Bloom's Taxonomy (1974) provides an excellent model to plan and develop higher level cognitive activities.

Ensuring that students who finish their work quickly are not penalised with additional work of the same type.

Introducing children to a wider array of interests and new knowledge.

Negotiating contracts that allow students to work independently and at their own pace.

Raising problems that require resolution at an individual or a group level; introducing new topics, issues, conflicts, or subjects that cause discussion, debate or dissention.

Grouping children of similar abilities and interests when appropriate.

Training children in study/research skills (planning, formulating tasks, setting objectives, finding information, interpreting, reporting, evaluating).

Establishing learning centres/interest centres in the classroom so that children in the early childhood/primary years may devote time to their specialised abilities and interests.

Seeking the expertise of parents and the general community when providing for children with a wide array of interests or with specialised needs.

Providing mentor assistance for students with highly specialised needs.

Encouraging the student's participation in "out of school" weekend and holiday workshops and clubs for gifted and talented students.

Resources: ACER www.acerpress.com.au

Dataworks www.dataworks.com.au

Dominie www.dominie.com.au

Edsoft www.edsoft.com.au

Hawker-Brownlow Education www.hbe.com.au

Link Educational Supplies www.linkeducational.com.au

EDUCATIONAL ARRANGEMENTS AND ADMINISTRATIVE PROVISIONS

ACCELERATION, ENRICHMENT AND EXTENSION

In terms of both educational practices and instructional strategies, there has not been establish a preferred or best way of providing for the wide diversity of abilities, talents, aptitudes, characteristics, interests, learning rates and styles of gifted students within the school.

Schools will vary widely in the precise nature, content and diversity of the programs that will constitute their provisions for gifted students. Schools will also differ in their philosophies and beliefs regarding gifted students, ranging from a belief that separate, segregated classes offer the best provision for gifted students, to the view that differentiated educational strategies should be offered to all students.

A school's provision for gifted students should be quite expansive. It needs to offer a range of program options to cater for the breadth of the particular learning needs and requirements of each student. In addition, consideration should be given to the school's unique organisation and structure, the expertise and availability of teaching staff, the resources available and the proximity to other schools with complementary programs.

Essentially, there are two main broad approaches to educational provision for gifted students-acceleration and enrichment/extension.

ACCELERATION

Acceleration refers to an individual student covering core curriculum content more rapidly than age peers. This may mean a student advances more quickly than peers in subject areas or through year levels. Some examples of acceleration provision include grade skipping, vertical grouping, ability grouping, individual acceleration, designated select entry acceleration schools or classes and credits for tertiary study.

Acceleration Provisions

- Grade Skipping
- Subject Specific Acceleration
- Select Entry Accelerated Programmes
- Tertiary Enhancement

- Early Entry to School or University

A comprehensive overview of accelerative options is provided below by Southern and Jones (1991) in their excellent chapter, *Academic Acceleration: Background and Issues*.

RANGE AND TYPES OF ACCELERATIVE OPTIONS

1.	Early entrance to school	The student is admitted to school prior to the age specified for normal entry to Prep. grade.
2.	Grade skipping or advancement	The student is moved ahead of normal grade placement. This may be done during the academic year or at year end.
3.	Continuous progress	The student is given material considered appropriate for current achievement as the student becomes ready.
4.	Self-paced instruction	The student is presented with material that allows him or her to proceed at a self-selected pace.
5.	Content or subject acceleration	The student is placed for a part of a day with students at more advanced grade levels for one or more subjects without being assigned to a higher grade.
6.	Combined classes	The student is placed in classes where two or more grade levels are combined. The arrangement can be used to allow younger children to interact with older ones academically and socially.
7.	Curriculum compacting	The student is given reduced amounts of introductory activities, drill, review, and so on. The time saved may be used to move faster through the curriculum.
8.	Telescoping curriculum	The student spends less time than normal in a course of study (e.g. completing a 1-year course in 1 semester, or finishing secondary school in less than 6 years).
9.	Mentorships	The student is exposed to a mentor who provides advanced training and experiences in

a content area.

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|-----|--|---|
| 10. | Extracurricular programs | The student is enrolled in course work or summer programs that confer advanced instruction and/or credit for study (e.g. fast-paced language or maths courses offered by universities). |
| 11. | Concurrent enrolment | The student is taking a course at one level and receiving credit for successful completion of a parallel course at a higher level. |
| 12. | Advanced placement | The student takes a course in secondary school that prepares him or her for taking an examination that can confer university credit for satisfactory performances. |
| 13. | Credit by examination | The student receives credit (at secondary school or university level) upon successful completion of an examination. |
| 14. | Correspondence courses | The student takes secondary school or university courses by mail or through video and audio course presentations. |
| 15. | Early entrance into secondary school or university | The student is admitted with full standing to an advanced level of instruction (at least 1 year early). |

For more details about the above provisions see the following sources-

Department of Education Victoria (1996). *Bright Futures: Resource Book-Education of Gifted Students*. Community Information Service.

Southern, W. T., and Jones, E. D. (1991). *Academic Acceleration: Background and Issues*.

In W. T. Southern and E. D. Jones, (Eds.), *The Academic Acceleration of Gifted Children*. pp. 1-28. London. Teachers College Press.

Vision (2006). Publication of the Victorian Association for Gifted and Talented Children (VAGTC). Selected articles in Volume 16, Number 1, April.

Gross, M.U.M. et al. *International Guidelines on Suitability for Accelerated Progression*. pp. 27-31.

Mackenzie-Sykes, L. *Acceleration and Advocacy: The Challenge Continues*. pp. 5-11.

ENRICHMENT/EXTENSION

The most commonly accepted educational provision for gifted students is through enrichment/extension programs. Enrichment refers to procedures that involve students pursuing activities designed to extend or supplement the regular school curriculum in some way.

Enrichment/extension promotes broader learning beyond the core school program at a level appropriate to the developmental and educational needs of the particular student. It aims to expand knowledge, understanding, processes, skills and interests.

Enrichment/extension provisions embrace a range of activities-new subjects, projects, excursions, mentors, integrated/cross discipline programs and school and community activities. These can occur within a variety of contexts-the regular classroom, within multi-age groupings within the school, groups from across schools and clusters and in the community or the home.

Enrichment/Extension Provisions

Within the Classroom

- Compacting
- Independent Study
- Self-Paced Learning
- Independent Research
- Learning Centres
- Individualised Instruction
- Differentiated Learning and Instruction
- Thinking and Study Skills
- Contracts
- Computerised Instruction
- Excursions
- Integrated Curriculum
- Interdisciplinary Programs
- Individualised Educational Programs
- Young Researchers Club

Withdrawal Programs within School Hours

- Clubs and Electives
- Competitions
- Mini-courses, Forums, Tutorials and Seminars
- Resource Rooms
- Cross-Age Tutoring and Buddy Systems
- Full-Time or Part-Time Classes for Gifted Students
- Special Secondary Schools
- Cluster Group Programs
- Experts in Residence

Withdrawal Programs out of School Hours

- Future Problem Solving
- Tournament of Minds
- Saturday Programs and Weekend Workshops
- Holiday Programs
- Summer Camps
- Personal Interests Groups
- Distant Education

Other Options

- Mentor Programs
- Overseas Exchange Courses
- Concurrent Enrolment in Secondary and Tertiary Institutions

GROUPING

Structural Options

- Composite Classes/Vertical Timetabling/Ungraded classes
- Victorian First Steps: Ungraded Prep to Year 2
- Multi-age Groupings
- Non-Graded Classes

Grouping Gifted Students by Ability/Interests

- Flexible Grouping by Ability
- Classroom Clustering
- Streaming
- Interest Groups

For more details about the above provisions see the following sources-

Department of Education Victoria (1996). *Bright Futures: Resource Book-Education of Gifted Students*. Community Information Service.

Vision (2006). Publication of the Victorian Association for Gifted and Talented Children (VAGTC). Article in Volume 16, Number 1, April.

Gross, M.U.M. et al. *To Group or Not to Group: Is That The Question?* pp. 18-26.

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Revised: 9-February-2009