Policy and implementation strategies for the education of

# gifted and talented students

Revised 2004

# Support package

NEW SOUTH WALES DEPARTMENT OF EDUCATION AND TRAINING



Gifted and talented students

Policy and implementation strategies for the education of

# gifted and talented students



© State of NSW, Department of Education and Training, Curriculum K–12 Directorate, 2004

Copies of this document may be made for use in connection with activities of the Department of Education and Training on the condition that copies of the material are made without alteration and must retain acknowledgement of the copyright.

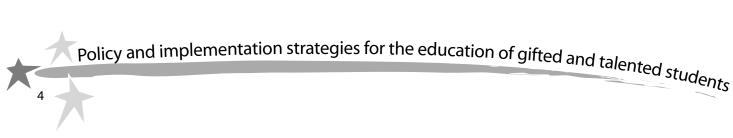
Any enquiries about alterations, or about reproduction for other purposes, including commercial purposes, should be directed in the first instance to Curriculum K–12 Directorate on (02) 9886 7743.

ISBN: 0731383443

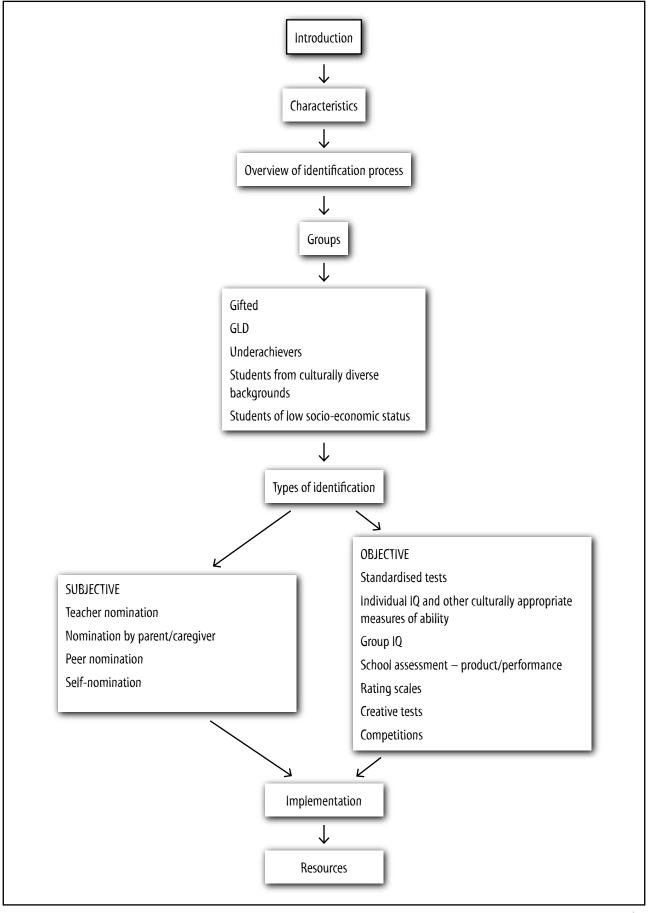
SCIS: 1175500

# Contents

Overview	5
Summary of procedures for identifying gifted and talented students	6
Foreword	6
Key	6
Introduction	7
Characteristics of gifted and talented students	8
Identification methodology	9
Role of the school counsellor	13
Gifted students with special needs	13
Gifted Learning Disabled (GLD)	13
Students from culturally diverse backgrounds	14
Underachievers	15
Gender issues	15
Identification of giftedness in early childhood	16
Sample checklists and nomination forms	16
Glossary	23
References	24
Resources	26
Appendix: Summary table of methods of identification and their use	29



# Overview



#### Summary of procedures for identifying gifted and talented students

- Development of whole-school policy
- Challenging curriculum and educational programs in place
- Supplementary identification tools decided on, e.g. checklists, nomination forms, tests
- Process for analysing the data collected
- Analysis of information
- Evaluation and assessment of programs and identification procedures
- Monitoring of students
- Modification based on evaluation.

#### Foreword

This document is an introduction to the identification of gifted and talented students and needs to be read in conjunction with the New South Wales *Policy and implementation strategies for gifted and talented students* (revised 2004). The information provided is suitable for all stages of schooling and is applicable to extension programs starting in comprehensive high schools in 2005.

Some additional support materials, indicated by the icons below, are available on the Gifted and Talented web site at http://www.curriculumsupport.nsw.edu.au/gats/index.cfm

# Key

6

The following icons designate a range of resources that include:



References to reading about identification



Proformas and checklists for school communities to modify for their own use



Electronic material, including Internet sites.

# Introduction

The NSW Government is committed to high quality educational outcomes for all gifted and talented students and the provision of an appropriate curriculum to meet these students' needs within the school education system. Such students are diverse and are found in all ethnic groups and cultures. Identification of gifted students is the first step toward making effective provisions for their education. Identification hinges on an understanding of the gifted and on knowledge about how to implement an identification procedure.

Identification issues are discussed in this document with reference to Gagné's (2003) Differentiated Model of Giftedness and Talent (DMGT). Gagné's model recognises giftedness as a broad concept that encompasses various abilities, including intellectual, creative, leadership, social and physical skills. The DMGT proposes four aptitude domains: intellectual, creative, socio-affective and sensorimotor. These natural abilities can be observed in the school setting, where appropriate identification strategies will distinguish gifted and talented students.

Procedures for identification should be multifaceted, involving parents/caregivers, students, teachers, and other professionals. The identification procedure must:

- be school-wide
- use multiple criteria
- be inclusive
- be dynamic and continuous
- be culturally fair
- ensure that all domains of giftedness and fields of talent are identified
- recognise degrees of giftedness and talent
- be organised and linked to differentiation
- allow for early identification and identification at all stages
- enable input from everyone involved.



# Characteristics of gifted and talented students

The distinguishing features of the gifted become apparent from an early age. Silverman (1993) provided a useful generalisation of the intellectual and associated personality characteristics of the gifted group. Not all of these features are exclusive to gifted and talented students but such students possess them to a greater degree.

Intellectual traits	Personality traits
Exceptional reasoning ability	Insightful
Intellectual curiosity	Need to understand
Rapid learning rate	Need for mental stimulation
Facility for abstraction	Perfectionism
Complex thought processes	Need for precision/logic
Vivid imagination	Excellent sense of humour
Early moral concern	Sensitivity/empathy
Passion for learning	Intensity
Powers of concentration	Perseverance
Analytical thinking	Acute self-awareness
Divergent thinking/creativity	Nonconformity
Keen sense of justice	Questioning rules/authority
Capacity for reflection	Tendency to introversion

(Silverman, 1993, p. 53)

Not all the characteristics of gifted and talented students are seen as positive. Davis and Rimm (1998) listed the following negative characteristics that gifted students may display. These are often exhibited by gifted underachievers and students with a learning disability:

- stubbornness
- non-participation in class activities
- uncooperativeness
- cynicism
- sloppiness and disorganisation
- a tendency to question authority
- emotional frustration
- absentmindedness
- low interest in detail.

Varying patterns of characteristics are found in individual students because they differ in intellectual level, specific abilities and degree of mental activity (Silverman, 1993). The more highly gifted students tend to show more intensity and energy (Clark, 2002). Not all students will display all of these characteristics, all of the time. Many criteria are required to identify gifted and talented students because of their diversity.

Six profiles of gifted and talented students have been identified (Betts & Neihart, 1988). Type I, the high achiever, is the most commonly identified student for gifted and talented programs. High achievers are well-liked by teachers and peers and achieve high-level outcomes. They display dependence rather than independence

and are not risk takers. They have not developed autonomy and could achieve more highly if they were more self-determining.

Type II is the **challenger**, who is usually creative. A lack of support for a student's creativity can result in rebellious behaviour and challenges to teachers and parents/ caregivers. Type III is the **underground student** who tries to hide his or her giftedness. This student, often a female in the middle years of schooling, frequently feels anxious and insecure. This is because a conflict is experienced between social and academic success.

Type IV is the **dropout**. This student has a long history of underachievement and requires a substantial support program to improve his or her educational attainment. Underachievement can result from the de-motivating influence of inappropriate programs. Type V is called **double labelled**. These are the students who may have a physical, emotional or learning difficulty. Often the impairment is given attention and the gifted potential is ignored, so that the student is identified for disability rather than giftedness. Type VI is the **autonomous learner**. This student is an independent and self-directed learner. Such students develop when appropriate educational programs are provided for them (Betts & Neihart, 1988).

## Identification methodology

The issue of identification is complex because allowance must be made for all types of students, including those who are gifted underachievers and those who may be disadvantaged. Five key principles of identification are:

- Defensibility: procedures should be devised to identify students in all domains of giftedness and fields of talent.
- Advocacy: teachers should use assessments to promote students' interests and should not expect students to perform equally well on all measures.
- Equity: there should be equitable procedures for identifying groups who may be disadvantaged by the mainstream identification procedures.
- Comprehensiveness: there should be the appropriate use of multiple sources of data.
- Pragmatism: identification needs to be consistent with the level of resources available.

(Richert, 1991)

The process for the identification of gifted and talented students must

- be dynamic and continuous
- allow for identification at any stage of the student's development
- allow for the highly talented to emerge from the larger talented group
- ensure that the identification of students from disadvantaged and culturally diverse groups is not overlooked.

No single method of identification is appropriate for all types of gifted students. A wide net should be cast by the use of multiple criteria, and as much information should be gathered as resources will allow. This will identify a wide range of students.

The identification of gifted and talented students is a part of whole-school planning for meeting the needs of these students. Appropriate educational programs must be in place to cater for the identified students. These programs will provide ongoing opportunities for students to be identified as gifted and talented. Teachers should therefore be identifying gifted and talented students by means of all teaching and learning processes.

The identification of gifted and talented students is a continuous process and should not be viewed as a one-off procedure. Schools should be continually evaluating their systems and making changes. It is important to monitor the progress of identified students and to ensure that the program is meeting their educational needs.

#### Stages of identification

Identification is a three-stage process of nomination, screening and monitoring.

#### Nomination

This is the identification of gifted and talented students by parents/caregivers, teachers, peers, school counsellors, community members and the students themselves. It involves the collection of subjective information, usually via checklists. Checklists may need to be translated into the language of the target population to collect valid information.

#### Screening

Screening involves the use of a combination of measures of potential and performance. It is more objective than nomination. Ability tests are useful for assessing potential, whereas achievement tests assess student performance in syllabus outcomes, and generally classify students into bands. Underachieving students with high intellectual potential may score poorly on achievement tests. Diagnostic tests are designed to identify specific areas of difficulty and do not identify students with higher abilities.

#### Monitoring

Teachers should ask the questions, "What is being observed?" and "How should the observations be noted?" before beginning to formally observe students. Teachers can develop proformas to aid in recording observations of students. This information can give a picture of students' performances, interests, strengths, weaknesses and skills. Specific data can be collected to reveal the effectiveness of the identification strategy.

#### Methods of identification

Some students will be easy to identify because of their academic ability and achievements, their enthusiasm and their intrinsic motivation. Specialised approaches may be needed to recognise gifts and talents in relation to the following groups:

- underachievers
- students with learning difficulties
- students with disabilities
- conduct-disordered students
- students from non-English speaking backgrounds

- students from culturally diverse backgrounds
- socio-economically disadvantaged students
- students disadvantaged by gender inequity
- geographically isolated students.

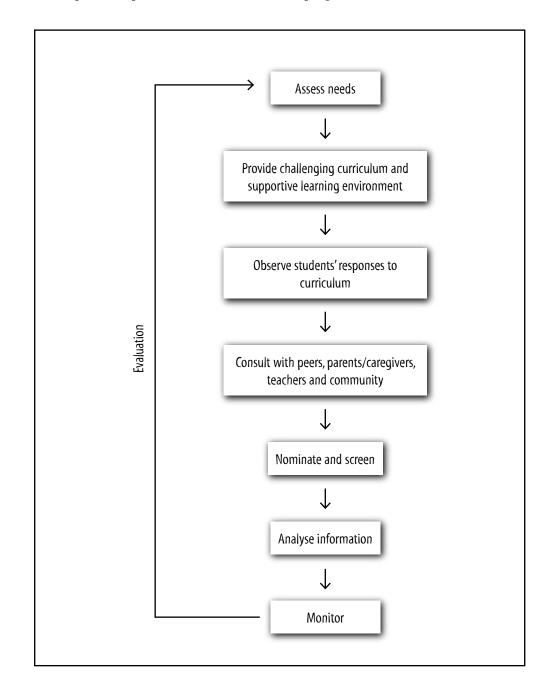
Identification methods need to be selected on the basis of age or stage and the domain of the ability to be assessed. They include:

- evaluation of student responses to a range of classroom activities
- nomination by parent/caregiver, peer, self and teacher
- assessment of responses to challenging competitions
- off-level testing<sup>1</sup>
- standardised tests of creative ability
- IQ tests and other culturally appropriate measures of ability
- observation and anecdotal evidence
- behavioural checklists
- interviews
- academic grades.

It is important that

- the teacher identification process be part of a school-wide identification program
- multiple criteria be used
- a mix of subjective and objective strategies be employed
- IQ tests be used in the context of other indicators and measures
- the expectation be avoided that all students will perform equally well on all measures
- students in the following categories should not be overlooked: the underachieving, the exceptionally gifted, students with disabilities and those with learning difficulties or from culturally diverse populations.

<sup>&</sup>lt;sup>1</sup>Testing at a level designed for older students



The sequence of processes in an identification program is shown below:

Additional tools are available for secondary teachers to identify gifted and talented students within subject areas. They include the Purdue Academic Rating Scales (Feldhusen, Hoover & Sayler, 1990). These scales have been developed for mathematics, science, English, social studies and foreign languages. They are derived directly from teachers' classroom experiences with superior students (Feldhusen et al., 1990), and are useful because they provide characteristics relevant to specific KLAs. Renzulli (2003) has developed specific procedures and instruments for forming a talent pool, which can be adapted for KLAs. These instruments aid in identification of the qualities, such as leadership, that an individual student may display.

A summary table outlining the methods of identification and their use is provided in the Appendix.

## Role of the school counsellor

The school counsellor's role is to provide not just assessment but also support, information and advice to students, parents/caregivers and teachers. The school counsellor would be a valuable member of the school's gifted and talented committee.

Counsellors are proficient in cognitive and adaptive assessment, understand emotional and social development and have insight into the impact of difference on the mental wellbeing of students. School counsellors are available to support the school in the identification of gifted and talented students by:

- · providing advice on appropriate assessment and procedures and tools
- interpreting reports from other agencies
- consulting on students' emotional and social maturity
- being an advocate for the student
- · liaising with parents/caregivers
- advising on the impact on access to the curriculum of:
  - socio-economic factors cultural identity gender expectations
  - disability.

The school counsellor is a part of the process for identifying gifted and talented students, but should not be the first or only way to achieve this. Tools such as nomination forms and checklists are a more efficient and cost-effective way of initially identifying gifted and talented students. Counsellors can be consulted when further information is required, or perhaps if the student is displaying behaviour that teachers and parents/caregivers feel warrants further investigation. Each school will have its own procedures which should be outlined in the school policy. Teachers should be aware of these procedures when referring a student to the school counsellor.

## Gifted students with special needs

#### Gifted learning disabled (GLD)

A GLD student has been defined as "a child who exhibits remarkable talents or strengths in some areas and disabling weaknesses in others." (Baum, Owen & Dixon, 1991, p. 15)

This suggests a student who has the potential to achieve at a high level academically but whose learning characteristics and educational needs require special identification. Educational programs should take into account both the student's abilities and the learning difficulty. Flexibility is required in the identification of GLD students because the disabilities may mask the abilities (Baum, 1988).

The method most commonly used to identify GLD students is the discrepancy between verbal IQ and performance IQ. However, this discrepancy by itself is not enough to diagnose a learning disability. Therefore the identification process should

provide information through a variety of procedures, including both objective and subjective information. Objective information can be obtained through individual IQ, achievement and creativity tests. Subjective material could consist of checklists, rating scales, behavioural information, product evaluations, interviews and information about the student from such sources as teachers, parents/caregivers, counsellors, community members, peers and the students themselves. The instruments used to identify other types of gifted students (e.g. group IQ tests) may be inappropriate for this group.

Teachers need to be aware that these students often exhibit behavioural problems and weaknesses in reading and writing, which need to be taken into account when deciding on the criteria to be used for their identification. Many of the checklists, nomination forms and rating scales used in the identification of gifted students can be modified for this group if required.

A list of resources relevant to this group of students is provided at the end of this document.

#### Students from culturally diverse backgrounds

The identification of students from culturally diverse groups needs to be sensitive to the ways in which particular gifts are valued and developed in different cultures. For example, Harslett (1994) found that parents/caregivers of Aboriginal children valued artistic and sensorimotor ability over academic ability. Traditional intellectual performance in such fields as knowledge of kinship structure, bush skills and knowledge of language were also regarded highly. These findings need to be interpreted cautiously as they may not be applicable to all Aboriginal communities.

Standard evaluations, such as IQ scores and teachers' estimates, can indicate giftedness in students from culturally diverse backgrounds. However, students from culturally diverse backgrounds often score lower than the general population on these types of tests. This is due to socio-emotional issues and inefficient metacognition rather than lower cognitive potential (Chaffey, Bailey & Vine, 2003).

Single criterion tests are not good identifiers of these students; a variety of identification techniques developed in consultation with each community is a more productive approach (Dorbis & Vasilevska, 1996). The use of special checklists and rating scales designed for these populations is recommended, for example, the *Harslett scales for rating the behavioural characteristics of academically and intellectually gifted Aboriginal students; Harslett peer group nomination inventory for the identification of intellectually gifted Aboriginal students* (Department of Education and Training, Government of Western Australia, 2004; Education Department of Western Australia, 1995).

Gifted learners from culturally diverse backgrounds are revealed by their ability to:

- manipulate some symbol system valued in the culture
- think logically, given appropriate data
- use stored knowledge to solve problems
- reason by analogy
- extend or extrapolate knowledge to new situations or unique applications.

(Clark, 2002, pp. 436–437)

#### Underachievers

Underachievement has been defined as:

a discrepancy between the child's school performance and some index of his or her actual ability, such as intelligence, achievement, or creativity scores or observational data.

(Davis & Rimm, 2004, p. 306)

Chaffey et al. (2003) distinguished an underachiever and an invisible underachiever. An invisible underachiever is a student whose assessed potential is less than his or her actual potential and who also underperforms in the classroom.

Gifted underachievers may deliberately hide their ability in order to seek peer acceptance or avoid appearing different. They may lack the motivation to achieve and will need intervention strategies to enable their giftedness to be identified. Parents/ caregivers may be reluctant to acknowledge, or may be unaware, that their child is gifted. Some of the characteristics of a gifted underachiever are:

- high IQ
- poor work habits
- lack of concentration and effort in undertaking tasks
- interest in one particular area
- incomplete work
- low self-esteem
- emotional frustration
- negative attitude
- perfectionism
- low self-efficacy<sup>2</sup>.

Whitmore (1980) developed a checklist for identifying gifted underachievers. Many of the checklists and rating scales used for identifying gifted students can be modified to use as tools in the identification of gifted underachievers.



The checklist can be found at http://www.curriculumsupport.nsw.edu.au/gats/index.cfm

#### Gender issues

Gender issues need to be considered when identifying gifted and talented students. A high weighting given to ability tests may result in more boys than girls being admitted to a program (Kerr & Nicpon, 2003). The criteria used in teacher assessment may favour girls or boys being admitted to a program, depending on the criteria used. An emphasis on presentation in assessment schedules may skew selection towards girls. Other considerations in selecting students for extension programs are that girls are more likely to conceal their ability as they approach adolescence (Betts & Neihart, 1988; Kerr & Nicpon, 2003), and some boys are likely to shun academic activity and hide their intellect (Hawkes, 2001).

<sup>2</sup> An individual's belief about his or her ability to organise and carry out a task.

# Identification of giftedness in early childhood

Early identification of a gifted child will facilitate an appropriate educational pathway and provisions. Giftedness can be identified outside the school environment; it is not dependent on a child being able to complete academic tasks. A young gifted child can be identified by investigating his or her level in the developmental stages of childhood development.

Early entry is an educational option that can be considered for young gifted children. Information on this can be found in the acceleration support package at http://www.curriculumsupport.nsw.edu.au/gats/index.cfm

## Sample checklists and nomination forms

Nomination forms and checklists must be used as part of an identification program, modified as required for the individual group and school. The school's gifted and talented policy and program should specify how the nomination forms are to be evaluated and what weighting is to be applied. These procedures need to be decided before any forms are given to parents/caregivers, students and teachers. These forms should be translated for students and parents/caregivers for whom English is a second language.

These nomination forms should elicit knowledge that the teacher did not expect of the student. The student with an untidy workbook, the student who is disruptive in class, or the class clown, may be recognised through nomination by peers or parents/ caregivers as a gifted student. Both negative and positive characteristics should be included when developing checklists and nominations forms.

In the development of checklists or nomination forms, it is helpful to list the traits to be identified and then develop questions or statements that will elicit this information. For example, statements or questions such as Has well-developed sense of humour or Who is the funniest person in your class? are identifying the trait: a sense of humour. Responses to a question such as Outside school hours, what does your child do? could reveal a student's interests, curiosity, advanced knowledge or sense of justice.

The nomination forms should be tailored to the student's age or stage. Questions such as At what age did your child start to read? and When did your child first show an understanding of numbers? would be asked of parents/caregivers of students in Stage 1 and Stage 2. They are not appropriate for parents/caregivers of students in Stage 4.

Sample checklists and nomination forms can be found as pdf files at http://www.curriculumsupport.nsw.edu.au/gats/index.cfm

Nomination by parent or caregiver					
Student's name:Year:			Year:		
Person completing the form: Relationship to student:					
Characteristic	Most of the time	Some of the time	ne Rarely		
Recalls facts easily					
Expresses himself/herself fluently					
Is always asking questions Has a sense of humour					
Finds unusual uses for things					
Tends to lead/initiate activities					
Is curious					
Has long attention span					
Is easily bored					
Is an avid reader					
Thinks logically					
Mixes with older children and adults					
Is impulsive					
Is an independent learner					
Is concerned about world issues					
At what age did your child show an understanding of numbers, puzzles and patterns? How many books and magazines would your child voluntarily read in a month?					
Does your child have any unusual interests? If so, what are they?					
What types of television programs does your child like to watch?					
Does your child have an interest in music? If	f so, what is he or sh	e learning and what I	level has been attained?		
In what activities does your child participate outside school hours?					
What hobbies and interests does your child have?					
Would you consider that your child has a particular problem or need that may affect his or her learning?					
Please add any other information you may feel relevant to your child's education.					

Nomination by teacher														
						1	Charac	teristic				1		
Student	Advanced vocabulary	Transfers knowledge	Well-developed sense of humour	Always questioning	Leader, takes control	Concerned about world issues	Completes tasks in unusual way	Superior reasoning	Curious	Highly imaginative	Independent learner	Risk taker	Learns easily and quickly	Perfectionist

Name: \_

If astronauts were being selected on the basis that they could tell someone on another planet all about Earth, who would you nominate to go?

Year:

\_\_\_\_\_

Who is the funniest person in your class?\_\_\_\_\_

If you needed help with a particular subject, who would you ask?

Who in your class would you ask for help if you had a personal problem? \_\_\_\_\_

Who is the best in your class at solving problems?

Imagine that the class was given the project of building a model of an invention. Who would you expect to build the best and most original model?

Which students in class can complete their work and still have time for other activities?

Who says the most original things in class, things that you would never have thought of?

If children did not have to go to school, who could talk you into going?

Who can structure the best argument in the class? \_\_\_\_\_

Who should have the lead role in the school play? \_\_\_\_\_

If your teacher could not be in the classroom, who could take over?

Imagine that the school has been asked to provide a work of art for the youth centre. Who in your class should be asked to do it?

Who is always reading? \_\_\_\_\_

Who has a wide range of knowledge? \_\_\_\_\_

Self-nomination form
Name:Year:
If you were given the chance to meet anyone in the past or present, whom would you like most to meet and why?
What is your favourite subject?
What do you enjoy about this subject?
What do you like to read? e.g. books, magazines, fiction, and non-fiction
About how many books or magazines would you read each week?
When you are not at school, what do you do?
What sorts of things interest you? Do you know a lot about certain things? What are they?

# Observational guide

#### Students' strengths and weaknesses

Date: Topic:				
Students' names	Specific strengths	Areas for development		
	1	I		

Information on some of the following nomination forms is available on the Gifted and Talented web site at http://www.curriculumsupport.nsw.edu.au/gats/index.cfm

Sayler Checklist for parents/caregivers: Things my child has done

Sayler Checklist for parents/caregivers: Things my young child has done

Sayler Checklist for teachers: Things this child has done

Checklist for underachievers (Whitmore, 1980)

The following are available in the 1995 publication of the Education Department of Western Australia, *Teaching TAGS: talented and gifted students* and online at http://www.eddept.wa.edu.au/gifttal/identification/checklist.htm



Harslett scales for rating behavioural characteristics of academically and intellectually gifted Aboriginal students

Harslett rating scale of behavioural characteristics for the identification of intellectually gifted Aboriginal students

Harslett peer group nomination inventory for the identification of intellectually gifted Aboriginal students

Non-English speaking background students form

# Glossary

Creativity tests	Tests that can reveal levels or degrees of fluency, flexibility, originality and elaboration in students' responses in problem-solving.
IQ tests	Standardised tests administered to individuals to determine the relationship between mental age and chronological age in problem-solving.
Multiple criteria	The inclusion of more than one standard from a range of sources applied in evaluation.
Nomination	The naming of gifted and talented students by parents/caregivers, teachers, school counsellors, peers, community members or the students themselves. This involves the collection of subjective information, in the form of checklists and nomination forms.
Off-level testing	A test that is set at a higher level than the student's age or stage.
Psychometric testing	A means of testing performance of intelligence, aptitude, creativity and school achievement using quantitative assessment of human traits.
Screening	Screening provides objective information and can include off-level testing, standardised tests, achievement tests and IQ tests.
Standardised tests	Standardised tests are reliable because they have been field tested with large populations.

#### References

- Baum, S. (1988). An enrichment program for the gifted learning disabled students. *Gifted Child Quarterly*, 32, 226–230.
- Baum, S.M., Owen, S.V. & Dixon, J. (1991). To be gifted & learning disabled: From identification to practical intervention strategies. Highett, Vic.: Hawker Brownlow Education.
- Betts, G.T. & Neihart, M. (1988). Profiles of the gifted and talented. *Gifted Child Quarterly*, 32(2), 248–253.
- Chaffey, G.W., Bailey, S.B. & Vine, K.W. (2003). Identifying high academic potential in Australian children using dynamic testing. *Australasian Journal of Gifted Education*, 12(1), 42–55.
- Clark, B. (2002). Growing up gifted: Developing the potential of children at home and at school (6th ed.). Upper Saddler River, NJ: Pearson.
- Davis, G. & Rimm, S. (1998). *Education of the gifted and talented* (4th ed.). Boston: Allyn & Bacon.
- Davis, G. & Rimm, S. (2004). *Education of the gifted and talented* (5th ed.). Boston: Allyn & Bacon.
- Department of Education and Training, Government of Western Australia. (2004). *Gifted and talented–Identification*, retrieved 9 November 2004, from http://www.eddept.wa.edu.au/gifttal/identification/index.htm
- Dorbis, C. & Vasilevska, S. (1996). *Cultural gifts in the 90s and beyond*, retrieved 9 November 2004, from http://www.nexus.edu.au/teachstud/gat/dor\_vasi.htm
- Education Department of Western Australia. (1995). Teaching TAGS: Talented and gifted students. Belmont, WA.
- Feldhusen, J.F., Hoover, S.M. & Sayler, M.F. (1990). *Identifying and educating gifted students at the secondary level*. Highett, Vic.: Hawker Brownlow Education.
- Gagné, F. (2003). Transforming gifts into talents: The DMGT as a developmental theory. In N. Colangelo & G.A. Davis (Eds.), *Handbook of gifted education* (3rd ed., pp. 60–74). Boston: Allyn & Bacon.
- Harslett, M.G. (1994). The identification of intellectually gifted Aboriginal children.
  In A. Simic & C. McGrath (Eds.), *Proceedings of the Fifth National Australian* Conference for the Education of Gifted and Talented Children: Developing excellence: Potential into performance (28–30 April 1994, pp. 68–77). Perth, WA: The Australian Association for the Gifted and Talented.

Hawkes, T. (2001). Boy oh boy: How to raise and educate boys. Sydney: Prentice Hall.

- Kerr, B.A. & Nicpon, M.F. (2003). Gender and giftedness. In N. Colangelo & G.A. Davis (Eds.), *Handbook of gifted education* (3rd ed., pp. 493–505). Boston: Allyn & Bacon.
- NSW Department of Education and Training. (2004). Policy and implementation strategies for the education of gifted and talented students (revised 2004). Sydney.
- Renzulli, J.S. (2003). The schoolwide enrichment model: Developing creative and productive giftedness. In N. Colangelo & G.A. Davis (Eds.), *Handbook of gifted education* (3rd ed., pp. 184–203). Boston: Allyn & Bacon.
- Richert, E.S. (1991). Rampant problems and promising practices in identification. In N. Colangelo & G.A. Davis (Eds.), *Handbook of gifted education* (pp. 81–96). Boston: Allyn & Bacon.
- Silverman, L.K. (1993). A developmental model for counseling the gifted. In L.K. Silverman (Ed.), *Counseling the gifted and talented* (pp. 51–78). Denver: Love Publishing Company.
- Whitmore, J.R. (1980). *Giftedness, conflict and underachievement*. Boston: Allyn & Bacon.

#### Resources

Information provided here is a guide to additional material available on identification. Other more general information on gifted education is also available from some of these resources. All web sites were available on 9 November 2004.

Baldwin, A.Y. (1984). Baldwin identification matrix 2. New York: Trillium Press.

- Ehrlich, V.Z. (2002). *Gifted children: A guide for parents and teachers*. Highett, Vic.: Hawker Brownlow Education.
- Gagné, F. (1999). *Tracking talents: For the identification of multiple talents*. Waco, TX: Prufrock Press.
- Gibson, K.L. (1992). Ensuring identification of disadvantaged and culturally diverse gifted students in Queensland. *The Australasian Journal of Gifted Education*, 1(2), pp. 27–30.
- Montgomery, D. (2003). *Gifted and talented children with special educational needs:* Double exceptionality. London: David Fulton.
- Porter, L.P. (1999). *Gifted young students: A guide for teachers and parents*. Sydney: Allen & Unwin.
- Renzulli, J.S., Smith, L.H., White, A.J., Callahan, C.M. & Hartman, R.K. (1994). Scales for rating the behavioural characteristics of superior students. Highett, Vic.: Hawker Brownlow Education.
- Renzulli, J.S., Reis, S.M. & Smith, L.H. (1981). The revolving door identification model. Mansfield Center, CT: Creative Learning Press.
- Tannenbaum, A.J. (1983). *Gifted children, psychological and educational perspectives*. New York: Macmillan.
- Torrance, E.P. (1974). *Torrance tests of creative thinking*. Lexington, MA: Personal Press.
- Van Tassel-Baska, L.K. (1989). Characteristics and needs of the gifted. In J. Feldhusen, J. Van Tassel-Baska & K. Seeley (Eds.), *Excellence in educating the gifted* (pp. 15–28). Denver: Love Publishing Company.

#### Journals

- Australasian Journal of Gifted Education. An Australian refereed journal which is published by the Australian Association for the Education of Gifted and Talented (AAEGT). http://www.nswagtc.org.au/shop/memform.html
- Gifted. Published by the NSW Association for Gifted and Talented Children (NSWAGTC) provides information for teachers, parents and community members. http://www.nswagtc.org.au/gifted/index.html

#### *TalentEd.* A refereed journal published by the University of New England. http://scs.une.edu.au/TalentEd/

#### Electronic

- Australian Council for Education Research. ACER develops and publishes tests which can be used in the identification process. http://www.acer.edu.au/
- Commonwealth of Australia. (2001). Senate Employment, Workplace Relations, Small Business and Education References Committee: *The education of gifted children*. Canberra: Australian Government Publishing Service. http://www.aph.gov.au/senate/committee/eet\_ctte/completed\_inquiries/ 1999-02/gifted/index.htm
- *Educational Assessment Australia*. Formerly the Educational Testing Centre, this organisation develops and publishes tests and conducts competitions for schools. http://www.etc.unsw.edu.au/
- Gifted Education Research, Resource and Information Centre. GERRIC provides resources, training and development for teachers and parents/caregivers, and conducts school holiday programs for students. http://gerric.arts.unsw.edu.au/
- Independent Testing Service of Australia. The Independent Testing Service of Australia provides a testing service to parents/caregivers, students and schools. http://www.ind-test.com.au

#### Australian associations

- Gifted and Talented Children's Association of South Australia. http://gtcasa.asn.au
- Gifted & Talented Children's Association of WA (Inc.) http://www.gatcawa.org/
- NSW Association for Gifted and Talented Students. NSWAGTC is a state association that provides information and conducts workshops for all groups who are interested in gifted and talented education. http://www.nswagtc.org.au/
- Tasmanian Association for the Gifted Inc. http://tasgifted.org.au
- The Queensland Association for Gifted and Talented Students Inc. http://www.qagtc.org.au/
- Victorian Association for Gifted & Talented Children. http://www.vagtc.asn.au/
- Professional Association of Parents and Teachers of the gifted. http://www.ProAPT.net

#### International

- American Association for Gifted Children (AAGC) publishes a newsletter three times a year, as well as a publication circulating information from the educational research community. Other resources on a variety of topics are available. http://www.aagc.org
- *Center for Creative Learning*. The Centre offers a variety of resources and publications for investigating, assessing and developing creativity. http://www.creativelearning.com/
- Gifted Development Centre. The director of the centre, Linda Silverman, has written many articles on visual spatial learners. http://www.gifteddevelopment.com
- National Association for Able Children in Education (NACE) is a network of British educators providing publications and resources for gifted education. http://www.nace.co.uk
- Supporting Emotional Needs of the Gifted (SENG) provides information and support in providing for the social and emotional needs of the gifted. http://www.SENGifted.org
- *The Hollingworth Center for Highly Gifted Children* publishes a newsletter for parents and professionals and an information packet for members, as well as a variety of other resources. http://www.hollingworth.org
- The National Research Center on the Gifted and Talented (NRCGT) has on-line resources for parents, students, researchers and others interested in the education of gifted and talented students. http://www.gifted.uconn.edu/nrcgt.html

# Appendix: Summary table of methods of identification and their use

Method	Information
Teacher observation	Teachers may miss underachievers: those with motivational or emotional problems and/or negative attitudes to school. Testing is recommended if there is suspicion of underachievement. Teachers use Whitmore's (1980) checklist of underachievement and observe the student to determine whether such testing is necessary. Need to be sensitive to how giftedness may manifest itself in other groups and be inclusive in terms of ethnicity, culture, socio-economic status, disability and geographic isolation
Parent/caregiver checklists	Parents/caregivers are generally reliable sources of information. However, some parents/caregivers may downgrade their ratings whereas others may overestimate their children's ability
Peer nomination	Can be used successfully in later childhood or adolescence. Children in Year 3 or younger have difficulty in making judgements about the abilities of their classmates. Younger children may be inclined to nominate their friends
Self-nomination	Students can give reliable information about themselves but care needs to be taken in obtaining it. Peer pressure may be a problem affecting the type of information that is volunteered
Creativity assessment	May identify the divergent thinker, who may be overlooked on IQ assessment
Individualised intelligence assessment	Accurate assessment of nature of abilities. Should be used for suspicion of underachievement. Expensive to administer, e.g. WISC (Wechsler Intelligence Scale for Children)
Group intelligence assessment	Generally good for screening but may have a "ceiling effect". Problems with assessment include reading, motivational or emotional difficulties. Can underachieve on an intelligence test but cannot overachieve
Achievement assessment batteries	Difficult to identify underachieving gifted and talented students. Similar problems to those for group intelligence assessment e.g. OLSAT (Otis-Lennon School Ability Test)
Other	School semester reports and portfolios
	Off-level testing, using a test or competition paper designed for older students
	Tests with "high ceilings"
	Interviews and anecdotal records
	Student interest inventories
	Translators or interpreters for ESL (English as a Second Language) students.