Module 2

Caroline Merrick
Ruth Targett
Production Information and Credits

This package was initiated and funded by the Federal Department for Education, Science and Training (DEST), and designed and produced at UNSW.

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GERRIC
School of Education, UNSW
Sydney, NSW, Australia 2052
Phone: +61 2 9385 1972
Fax: +61 2 9385 1973
t: gerric@unsw.edu.au

Writers:
Modules 1 & 3: Professor Miraca U.M. Gross
Module 2: Caroline Merrick & Ruth Targett
Module 4: Dr Graham Chaffey
Modules 5A & 5B: Bronwyn MacLeod
Module 6: Stan Bailey

Photographs: Steve Walsh & Bronwyn MacLeod
Administrative Assistance: Donna Sobanski
GERRIC Project Officer: Rosalind Walsh
Assistance with Navigational Package: Dr Katherine Hoekman
Package Content Design & Production: GERRIC at the UNSW
CD-ROM Production & Graphic Design: Belinda Allen & Teresa Attfield, EDTeC (Educational Development & Technology Centre) UNSW
Welcome!

You are about to start a Professional Development Course which will help you identify the gifted and talented students in your class or your school, and differentiate the curriculum to respond to their individual learning needs. You'll also be able to decide which of your students may benefit from various forms of ability or interest grouping and which may possibly be candidates for one or more of the many forms of academic acceleration.

About the Package

The course consists of six Modules

Each Module consists of three levels: Core, Extension and Specialisation. The Core levels of the six Modules are the heart of this course. The Core Modules contain essential information and practical advice and strategies to assist you to identify and respond to your gifted and talented students.

We strongly suggest that you complete the Core level of each Module.

Pre-tests

We are aware that teachers and school administrators will enter this course with a wide range of existing knowledge of gifted and talented education. To accommodate this range of knowledge and experience, we have started each Core Module, from Module 2 onwards, with a pre-test. We encourage you to take these pre-tests and, if you ‘test out’ on any Module at Core level, simply move on to the next Module. For example, if you ‘test out’ of Core Module 2 you will pass over that Module and move on to Core Module 3.

Extension and Specialisation Levels

Extension and Specialisation levels for each Module. Material covered in the Extension and Specialisation levels builds on the knowledge you will have gained from the Core level in each Module. Key issues are examined in greater depth and participants explore a wider range of issues in the cognitive and social-emotional development of gifted students. New identification, curriculum differentiation and program development techniques are introduced.

The Extension and Specialisation levels require teachers, counsellors and administrators to undertake further reading and practical activities to reflect on classroom practice, school practice and policy. They encourage participants to focus on their specific role in the school and prepare a brief action plan to demonstrate application or mastery of outcomes.

Schools may decide that completion of the course at Specialisation level would be a useful prerequisite for becoming the school's Gifted Education Coordinator.
What will you learn in this course?

The course consists of six Modules:

**Module One: Understanding Giftedness**
Understanding the nature of giftedness and talent; what the terms mean; levels and types of giftedness. Cognitive and affective characteristics of gifted and talented students; ways in which these students may differ from their classmates - even if at first we don’t observe this.

**Module Two: The Identification of Gifted Students**
A range of practical identification procedures, with particular attention to procedures which are effective in identifying gifted students from culturally diverse and disadvantaged groups. We’ll be emphasising the use of a combination of approaches rather than a single measure such as IQ testing or teacher nomination used in isolation.

**Module Three: Social and Emotional Development of Gifted Students**
Understanding the social and emotional characteristics and needs of gifted students. Ways in which gifted students may differ somewhat from their classmates in their social and emotional development. Supporting gifted students and their parents. Teaching strategies and class structures which foster the development of positive social attitudes and supportive peer relationships in gifted students.

**Module Four: Understanding Underachievement in Gifted Students**
Understanding the causes of underachievement in gifted students. Identifying gifted underachievers and planning interventions designed to prevent and reverse cycles of underachievement.

**Module Five: Curriculum Differentiation for Gifted Students**
Teaching strategies and methods of curriculum differentiation which enhance the learning of gifted students in the regular classroom. Appropriate use of different enrichment models that international research has found to be effective with gifted and talented students. Practical applications of pre-testing, curriculum compacting and individualised programming.

**Module Six: Developing Programs and Provisions for Gifted Students**
Practical strategies for the establishment and monitoring of ability, achievement or interest grouping, and the many forms of accelerated progression. Particular attention will be paid to the effects of various strategies on students’ academic and social development.
Using the package

Much of the material is suitable across teaching and learning contexts. This content is not specifically marked. However, content that may be applicable to your particular context is identified as follows:

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Follow these symbols through the content to customise your learning path.

Each Module comes in two parts, each concluding with a practical exercise. We suggest that you complete the first and second parts a few days apart - unless this is not workable in your particular learning context. This will give you a chance to digest the information in Part 1 and work through the Reflective/Practical component.
# Core Module 2: Identification of Gifted and Talented Students

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Module 2

Identification of Gifted and Talented Students

Welcome to Module 2, Identification of Gifted and Talented Students. In this Module you will become familiar with some of the tools and techniques that are used to identify giftedness and talent in students at different levels of schooling.

This is a challenging process, as each school will have students with different characteristics, circumstances and needs.

As will become clear throughout this Module, the key purpose of identifying gifted and talented students is to serve them with a program and curriculum that meet their needs.
1. **What is the main purpose of identifying a gifted student?**
   
   (a) To compare them with other students.
   
   (b) To provide appropriate programs and curriculum.
   
   (c) To give feedback to parents.
   
   (d) To label the child gifted and talented.

2. **When trying to identify gifted and talented students we should:**
   
   (a) Use one objective measure, as these tools are not influenced by personal opinion or bias.
   
   (b) Use one subjective measure, as teachers and parents are the best people to identify gifted and talented students.
   
   (c) Use multiple measures, comprising a combination of objective and subjective measures, according to the definition of giftedness and talent used by the school and the nature of the program.
   
   (d) Use one objective and one subjective measure as this will allow for balance in the identification process.

3. **Explain the difference between objective and subjective measures.**

4. **When would you use a subjective measure and when would you use an objective measure?**

5. **What might be the most effective identification process for the following student? Read the case study and make recommendations.**

   **Hamish** is a very energetic five-and-a-half-year-old, who is in his first year of schooling. His parents could have sent him to school last year as he was old enough but, on the advice of his pre-school teacher, decided to hold him back. They were told that he was a boy who might benefit from an extra year of socialisation, as he was not mixing well and could not sit still. He always seemed to be moving and asking questions.

   Recently his teacher showed the principal some colouring in Hamish had completed. It was messy and not in the colours he was asked to use. When he was asked about the messiness of his work, Hamish said that he should not have to colour in, as when he visited the Art Gallery he found lots of artists who did not keep within the lines.

   **What identification tools might be useful in Hamish’s case?**
1. (b)
2. (c)
3. Subjective measures are judgements based on individuals’ personal observations. Objective measures are those that produce comparable scores, eg from standardised tests, that indicate potential or performance relative to a large population of other students.
4. You should aim to use a combination of both subjective and objective measures in the identification process. Objective measures may confirm personal observations and judgements made when using subjective measures.
5. The following modelled response has been provided for the case study.

**What identification tools might be useful in Hamish’s case?**

The principal asks his parents to complete a Parent Nomination Form to find out what behaviours Hamish is exhibiting in the home context. He also asks Hamish’s teacher to complete a Teacher Nomination Form. He suggests that Hamish have an IQ assessment and see the school counsellor, as he is concerned that Hamish may be exhibiting some symptoms of ADHD (Attention Deficit Hyperactivity Disorder).

**Outcomes**

At the completion of this Module, you will:

- understand the purpose of identification.
- understand the difference between objective and subjective identification tools and when to use them.
- be aware of various tools available for identification.
- appreciate the need for multiple identification criteria.
**Identification as an ongoing process**

As discussed in Module 1, gifted and talented students have different learning needs from those of their age peers of average ability and therefore need special educational planning to support them in developing their potential. The first step in helping these students is to find them - and this is commonly termed **identification**.

Just as it is important to identify students with learning disabilities and assess their particular learning needs on the learning continuum, it is also necessary to identify each gifted child’s specific learning needs and current level of achievement. The purpose of identifying a gifted child is to provide appropriate learning experiences (Richert, 2003).

Once a student has been identified as gifted, we can then use appropriate educational interventions and strategies in order to move them along the learning continuum. In the process we may unearth additional gifts in specific areas, identify students whose needs are not being met by the current curriculum and provide evidence for inclusion in a particular program. These are both the main purposes of identifying gifted and talented students and the desired outcomes of successful identification.

Identification is not intended to label children once and for all as gifted or not gifted. Rather, it is an ongoing process, with a diagnostic purpose, just as it is for students in other special needs groups. Identification should occur throughout a child’s educational journey. New contexts and developmental changes may alter the expression of different abilities at various times, requiring ongoing identification. It is a shared responsibility between parents, teachers, counsellors and trained professionals. Periodic assessment is required as students’ gifts grow and change.

In a nutshell, we can see the process of identification as ongoing:

- **Definition of program**
- **Nomination**
- **Evaluation and continued identification**
- **Assessment / identification**
- **Appropriate curriculum differentiation / program**

[Diagram of the identification process]
When identifying gifted students we need to know not only whether they are gifted and/or talented but also in what domain(s) the gifts or talents are sited.

**Rationale**

Identification of gifted and talented students can be a complex issue and the selection of the most suitable tests, checklists and other tools for your school is very important. Choosing the ‘right’ tools will help you provide defensible interventions for gifted and talented students (Borland, 1989). By defensible we mean that your school can affirm that you are using the best methods available, so that your selection or placement decisions are soundly based and therefore fair and valid. Your school will be able to explain that your identification processes aim to identify as many as possible of the gifted and talented students at the school, using a variety of reliable and valid data collection processes.

The rationale behind the way gifted and talented students are identified is dependent on the definitions of giftedness and talent that the school adopts. The Gagné model is the rationale behind the identification system used in this Professional Development Course, so this model will guide our discussion of identification tools and their use. If you are looking for students who are either gifted or talented (or both, with some gifts having been successfully translated into talents and others still to be assisted), you need to use a variety of tools that will allow you to identify high potential as well as high performance. Identification procedures need to take into consideration the important issue that some gifted children freely express their abilities at school, while others may not.
Principles of effective identification

There are several important principles, supported by research, to guide you in your endeavours to identify gifted students effectively and confidently. These include:

- Using tools and strategies that are prescribed by, or in harmony with, the definitions of giftedness and talent adopted by your school (e.g., Gagné’s, as described in Module 1).

- Using multiple criteria, so that you may identify as many of your gifted students as possible, using a variety and balance of both subjective and objective measures.

- Ensuring that the tools and strategies you use are reliable and valid.

Reliability refers to the accuracy or consistency of an identification method (e.g., teacher nomination may be considered to have low reliability if two teachers estimate quite differently the potential in a particular domain of the same student, or group of students).

Validity refers to the extent to which an identification method measures what it is supposed to measure (e.g., parent nomination may be considered to have low validity if all students in a comprehensive school are rated as gifted).
Reliability and validity will be expanded upon in the Extension and Specialisation levels of this Module.

- Examining the intrapersonal and environmental catalysts which are influencing the expression of giftedness.

- Establishing equity of procedures to ensure that no one is overlooked. This will include considering children from disadvantaged backgrounds, and taking into account cultural influences.

- Beginning the identification process early to help prevent chronic underachievement.

- Providing appropriate education (e.g., in pace and level). We will cover this in the subsequent Modules.

**The range of identification measures which the school adopts should be designed to identify all of the gifted and talented students in the school population.**

**So, how do we know what are the best measures?**

Identification measures fall into two basic categories: subjective and objective measures.

**Subjective measures** allow judgements to be made on the basis of structured observations of the student. These include teacher, parent, peer and self nomination, along with anecdotal records contributed by previous teachers and the child's family.

**Objective measures** are standardised tests of ability or achievement. These include IQ tests and other forms of psychometric testing, standardised performance tests, dynamic testing and off-level testing.

You may also see these two types of measures referred to as **quantitative** (objective) and **qualitative** (subjective). Effective identification of gifted children requires evidence from both categories.

Effective identification will provide:

- evidence of both students’ ability (potential) and their current level of performance.

- pointers to underachievement, including information about the environmental and personalogical catalysts, which may be influencing students’ current performance. (You may wish to re-read the section on Gagné in Module 1 which outlines the possible impact of these catalysts).

- information that initiates appropriate curriculum and programs.
Did you know that effective identification will help you to identify underachieving gifted students, including students from culturally diverse and disadvantaged populations?

(You can read more on this, later in this Module, and in Module 4).

Not all gifted students perform well in the school system

The school should also employ identification procedures which are designed to find students who are not achieving at levels commensurate with their ability, due to negative effects of intrapersonal and environmental catalysts. These students are called **gifted underachievers** and in Module 4 we will explain some of the reasons why underachievement is so prevalent among gifted and talented children and adolescents.

A wide range of strategies must be used to assist identification. The tools you use will depend upon the child’s age, need, location, background and the resources available to you in your school, district or system. These will be different for each individual in each school. A defensible identification process must contain a balance of objective and subjective measures.

Subjective measures

Giftedness has many dimensions and so should the identification process. Subjective measures allow teachers, parents, peers and the students themselves to use checklists and other descriptors which help them make evaluative judgements about a student’s ability.

**Parent nomination**

Parents are a valuable source of information. No one knows a child, particularly a young child, better than their parent. Parents have information on both the positive and negative characteristics of their children, particularly in the first five years of life before schooling begins. They know their children’s areas of interest and passion.

Significant areas of advanced development can be readily observed in young children and it is the parent who is the ‘keeper’ of this information.

Parents may be aware of the ages at which their child moved through stages of speech acquisition, physical development milestones, stages of prereading and early reading, and the development of numeracy and early interests. Early development of speech, movement and reading are strong predictors of high intellectual ability. Gross’s (2004) study of exceptionally gifted children recorded children who sat up at four months, uttered their first meaningful word by eight months and walked up stairs by nine months. Clearly, these children demonstrated learning which was significantly in advance of their peers. These behaviours occurred long before school entry. They were observed by parents: their teachers weren’t around at the time! It is essential to
involve parents in the identification process if we are to gain a whole picture of the child. Early development and milestones will be expanded upon in the Extension and Specialisation levels of this Module.

Teachers are often sceptical that parents may overestimate their child’s abilities. However, parents of gifted young children more often underestimate their child’s abilities, as they may see them as normal, compared to siblings or other family members. In a family where children are developmentally advanced, what parents consider to be normal development may later be seen as substantially advanced when the child enrols in school.

Teachers do not see these early developmental stages. Parents are more likely to know when particular areas of strength are most evident - and this can be a very useful aid to the identification process. To assist parents to record this valuable information, a set of questions which allows an anecdotal example to be provided, is a most useful tool for identification. Be aware that for some cultural groups there may be reticence to nominate a child or that cultural norms may hold back or hide gifted students. This is particularly true where it is culturally inappropriate to stand out.

A variety of parent checklists is available and your state or territory may have a preferred version. However, one that we recommend, developed by Professor Michael Sayler of the University of North Texas and already used in a number of Australian schools, is included below for your use.
GERRIC RESOURCES
GIFTED AND TALENTED CHECKLIST FOR PARENTS
THINGS MY YOUNG CHILD HAS DONE

The following is a checklist of characteristics of gifted young children. The examples after each item are there to help you understand that item. A child may not show all of the examples given and they may exhibit the item characteristic in ways not listed. Indicate how much you think your child is like the item by using the scale to the right of each item. Mark strongly agree (SA) to strongly disagree (SD). Fill in one circle for each item. If you are unclear or haven't noticed how your child compares to an item, fill in the Unsure or don't know circle. Use the space below the item for examples concerning your child, add as many details as you can remember. Be as specific as possible in describing your child's interests and accomplishments. The space is small, so please feel free to add extra pages of stories or examples to tell us more. If you can share some copies of your child's creative work, we would be delighted to have them. Use additional pages to describe anything you think is important about this child that we have not asked about.

Child's name: ___________________________ Child's birthday: ___________________________

Your name: ___________________________ School name: ___________________________

Date: ___________________________

My child:

1. Has quick accurate recall of information.
   (e.g. remembers complex happenings and describes them long afterwards in clear details; learns notes and words to songs quickly; remembers landmarks and turns on the way to familiar places)

   SA ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ SD            ☐ Unsure or don't know
   A personal example:

2. Shows intense curiosity and deeper knowledge than other children.
   (e.g. insatiable need to know and explore; later on he or she collects things and then learns all he or she can about them; remembers things in great detail)

   SA ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ SD            ☐ Unsure or don't know
   A personal example:

3. Is empathetic, feels more deeply than do other children that age.
   (e.g. feels unusual hurt or pain when he or she displeases someone; shows pride in advanced accomplishments; is sensitive to others’ feelings and shows distress at other children’s distress or adult’s distress; will subjugate their needs to the needs of others; reads body language)

   SA ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ SD            ☐ Unsure or don't know
   A personal example:
5. Uses advanced vocabulary.
(e.g. correctly uses vocabulary adults would expect from older children; surprises adults and children with big words they use; knows more words than other children; stops to ask about new words then remembers them and uses them correctly later)

SA 0 0 0 0 0 0 0 0 0 SD ○ Unsure or don't know
A personal example:

5. Began to read, write or use numbers early.
(e.g. early interest in the alphabet and or numbers; liked to imitate writing as a toddler; copied letters, words or numbers; learned to read or count early without formal instruction; developed computational skills earlier than others)

SA 0 0 0 0 0 0 0 0 0 SD ○ Unsure or don't know
A personal example and approximate age of your child at the time:

6. Understood phrases or brief sentences as an infant.
(e.g. listened intently; understood and acted on short sentences such as ‘Give mum a hug’ or ‘Bring me the book and I will read to you’)

SA 0 0 0 0 0 0 0 0 0 SD ○ Unsure or don't know
A personal example and approximate age of your child at the time:

7. Began speaking first in words and sentences earlier than other children.
(e.g. spoke first words before age one; went from saying individual words to speaking in sentences quickly or, spoke first words later than age one and quickly moved to speaking in complete sentences; carried on conversations with adults as if they were peers)

SA 0 0 0 0 0 0 0 0 0 SD ○ Unsure or don't know
A personal example and approximate age of your child at the time:

8. Early motor development.
(e.g. very visually attentive during the first six months, watched people carefully; followed movement intently; walked early; fed himself or herself sooner than other children; active use of toys and puzzles)

SA 0 0 0 0 0 0 0 0 0 SD ○ Unsure or don't know
A personal example and approximate age of your child at the time:
9. Shows unusually intense interest and enjoyment when learning new things.
(e.g. listens for long periods of time to stories and conversations; retells events and stories in great
detail; entertains self for long periods of time; shows unwavering attention sometimes to the point
of stubbornness; sits patiently when reading or listening to books)

SA 6 6 6 5 5 4 4 3 3 2 1 0 SD  ○ Unsure or don't know
A personal example:

10. Has an advanced sense of humour or sees incongruities as funny.
(e.g. is humorous in speech, social interactions, art or story telling; makes jokes, puns, plays
on words)

SA 5 5 5 5 4 4 4 2 1 0 SD  ○ Unsure or don't know
A personal example:

11. Understands things well enough to teach others.
(e.g. likes to play school with other children, dolls or stuffed animals; talks like an 'expert' or
likes to discuss certain topics a lot; explains ideas to adults when he or she doesn't think the adult
understands very well)

SA 5 5 5 5 4 4 3 3 2 1 0 SD  ○ Unsure or don't know
A personal example:

12. Is comfortable around older children and adults.
(e.g. craves for attention from adults; likes to be with older children and adults; listens to or joins
in adult conversations; likes to play board games designed for older children, teens or adults; often
plays with and is accepted by older children)

SA 5 5 5 4 4 3 3 2 1 0 SD  ○ Unsure or don't know
A personal example:

13. Shows leadership abilities.
(e.g. sought out by other children for play ideas; adapts his or her own words and expectations
to needs or skill level of playmates; may be seen as bossy; uses verbal skills to deal with conflicts
or to influence other children)

SA 5 5 5 4 4 3 3 2 1 0 SD  ○ Unsure or don't know
A personal example:
(e.g. finds unique or nontraditional ways; plays for long periods of time with imaginary friends; diligent in getting things they want regardless of where you've put them; makes up believable endings to stories)

SA ⑤③③③③③③③③ SD  ○ Unsure or don't know
A personal example:

15. Uses imaginative methods to accomplish tasks.
(e.g. presents unique arguments in order to convince others to allow him or her to do or get things; finds imaginative ways to get out of doing things they don't want to do; curious with a high energy level that is goal directed)

SA ⑤③③③③③③③③ SD  ○ Unsure or don't know
A personal example:

16. Use the rest of this page or its back to tell us anything you think is important about your child that we have not asked about. Please feel free to add any information you think might be useful in giving us a clear picture of what your child has done. Be as specific as possible in describing your child's interests and accomplishments. If you can share some copies of your child's creative work, we would be delighted to have them.
Here is an example of a useful parent checklist item on Sayler’s ‘Things My Young Child Has Done’:

Checklist item:

My child:

1. Has quick accurate recall of information.

(eg remembers complex happenings and describes them long afterwards in clear details; learns notes and words to songs quickly; remembers landmarks and turns on the way to familiar places.)

SA 10 9 8 7 6 5 4 3 2 1 0 SD 0 Unsure or don’t know

A personal example:

An example of a parent response to the above checklist item, follows;

My child: Antonio Tamaro

SA 10 9 8 7 6 5 4 3 2 1 0 SD 0 Unsure or don’t know

A personal example:

Antonio was only 18 months old when his grandparents moved house. After his first visit to Grandma’s, he directed the way home from the back seat of the car by pointing. The 20-minute trip was achieved perfectly. By age two-and-a-half he could remember the words to 20 nursery rhymes, which all had to be recited every night!

It is clear that Antonio has an excellent memory, both verbally and spatially. However, more than one item is required in order to develop an overall picture of Antonio’s ability. Using a detailed parent nomination form will assist the teacher to note the overall pattern of Antonio’s behaviours, early interests and passions.

It is sometimes easy for educators to dismiss parent information or anecdotes as parental pride. However, it is these anecdotes which tell you, the teacher, just how early the child was displaying specific behaviours. This will also allow you to assess just how different the child is from his or her age-peers. Parents will be more likely to cooperate when you explain that you are interested in knowing more about their child and the way he or she learns.

Limitations of the parent nomination checklist

As with all identification procedures, parent nomination has some limitations. For example:

- A parent may not be fully aware of the degree of a child’s advancement.
- Adoption or fostering may mean that consistency of information has not been maintained.
- A parent may not be able to read, interpret or understand the nomination form due to language, literacy or cultural barriers.
- Parents may not have all the relevant information, due to family breakdowns.
- For a variety of reasons, parents may refuse to complete the form.

**Interpreting parent checklists**

Interpreting parent checklists means reading carefully through the information given and asking yourself:

- Are there gifted behaviours being observed at home?
- Are there early milestones achieved at a younger age than the norm?
- Are more than a third of the items illustrated with descriptive anecdotes?

This information should indicate whether the child is displaying observable gifted behaviours, which can then be combined with information from the other subjective and objective measures the school can use.

**Teacher nomination**

Module 1 presented a range of learning characteristics and social-emotional characteristics of gifted students. These characteristics are readily observable if teachers know what they are looking for. Certainly, poor teacher nomination can occur when teachers make a subjective judgement without the support of checklists or other tools. For example, teachers may associate giftedness only with high performance. However, many gifted children may not outperform or even equal their peers on everyday classwork. Rather it is on complex, more advanced work, in the student’s area of high ability, that you may see greater evidence of giftedness.

A behavioural checklist is a useful tool for teacher nomination. It may facilitate structured observation of both positive and negative behaviours in students. Teachers wanting to identify their gifted students sometimes make the mistake of looking only for positive behaviours.
However, gifted children who are frustrated, bored or switched off learning will rarely be feeling positive about their school experience - and boredom and frustration are rarely manifested in positive ways! Gifted underachievers are unlikely to be identified by teacher checklists which consist only of positive descriptors.

Here is an example of how a characteristic can be described in both its positive and negative forms:

**Characteristic**
High level of curiosity and a wide variety of interests

**Positive Behaviour**
Investigates ideas, remembers things in great detail, asks questions.

**Negative Behaviour**
Easily diverted from the task, takes on too many projects, asks questions at inappropriate times.

**Scenario of a young gifted child in a classroom setting**

Daniel is 4 and attends preschool three days a week. He seems to enjoy puzzles, building with blocks and listening, with great interest, to stories read aloud. His teacher sees him as having average ability, until he brings in his rock collection for news time. He explains the classification system he has developed for his rock collection and the difference between rocks and minerals. He also shows pictures of the digs he has been on with his Dad.

Realising that Daniel has unusual analytical ability, his teacher gives him some more challenging puzzles to attempt. He does them first time and asks for more. She gives him the hardest puzzle she has and he sits quietly at the table until he has finished it. He then exclaims, ‘That was my favourite activity at Preschool ever!’

Students need to engage in challenging and complex activities in order to demonstrate advanced thinking and complex reasoning. For example, curiosity may only be evident when the child has something to be curious about. Use of sophisticated humour may only manifest itself when children are given the opportunity to be ‘cleverly’ funny.

**You may need to design a range of complex activities in order to elicit these gifted behaviours.**

Be careful not to use the ‘shopping list’ approach, whereby you observe a student for 10 minutes, aiming to tick off all the items which describe the child. Structured longer-term observation is more valid. You should observe the student over a period of time, during which different experiences are offered and specific behaviours can be observed.

Teacher nomination forms or checklists come in many styles. Your state or territory may have a preferred version. However, the following table is an alternative which you can use.
**Young Gifted Children**

**Teacher Nomination Form**

Record the name of your student. Use a highlighter to show each behaviour you observe in the classroom or playground.

Name of Student: ____________________________  Age: ________________

Teacher: ____________________________  Date: ________________

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Behaviours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unusual alertness</td>
<td>• intense concentration and interest in interactions and objects</td>
</tr>
<tr>
<td></td>
<td>• long attention span</td>
</tr>
<tr>
<td>Advanced play behaviour</td>
<td>• interest in games with rules developed at an earlier age than usual</td>
</tr>
<tr>
<td></td>
<td>• able to play games which require strategy earlier than age-peers</td>
</tr>
<tr>
<td>Exceptional memory</td>
<td>• ability to recall information in great detail. Often tells stories to the teacher with a immense amount of detail.</td>
</tr>
<tr>
<td>Early reading</td>
<td>• ability to read on entry to school</td>
</tr>
<tr>
<td>Rapid pace of learning</td>
<td>• appears to acquire knowledge effortlessly</td>
</tr>
<tr>
<td></td>
<td>• ability to generalise the knowledge to new situations in unexpected ways</td>
</tr>
<tr>
<td>Asks lots of questions</td>
<td>• ask probing and reflective questions</td>
</tr>
<tr>
<td>Early development of classifying and investigating</td>
<td>• organises things by classifying into groups</td>
</tr>
<tr>
<td>skills</td>
<td>• investigates how things work and wonders ‘what will happen if …’</td>
</tr>
<tr>
<td>Exceptional mathematical ability</td>
<td>capacity to grasp abstract mathematical concepts at unusually early age</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Imagination</td>
<td>has an imaginary friend or animal</td>
</tr>
<tr>
<td></td>
<td>creative and inventive storyteller</td>
</tr>
<tr>
<td>Early speech</td>
<td>love of rich vocabulary; larger than expected vocabulary compared with age peers</td>
</tr>
<tr>
<td></td>
<td>capacity to create complex sentences</td>
</tr>
<tr>
<td>Early social interactions</td>
<td>early awareness of the individuality of others</td>
</tr>
<tr>
<td></td>
<td>intense concern for other children who are hurt</td>
</tr>
<tr>
<td>Feelings of frustration</td>
<td>frustrated if motor coordination lags behind intellectual development, such as pencil grip</td>
</tr>
<tr>
<td></td>
<td>may be resistant to writing or drawing</td>
</tr>
<tr>
<td>Heightened sensitivity</td>
<td>early capacity to empathise with feelings of others</td>
</tr>
<tr>
<td>Social and emotional maturity</td>
<td>emotionally more like older children and may seek them out as friends</td>
</tr>
<tr>
<td></td>
<td>may be isolated from same-age peers because of his or her more mature interests and perceptions</td>
</tr>
<tr>
<td>Early awareness of difference from others</td>
<td>norm-references to other children from an early age</td>
</tr>
<tr>
<td></td>
<td>may deliberately begin making mistakes to be like other children</td>
</tr>
</tbody>
</table>

Caroline Merrick, 2004
Scoring the Checklist

Have you highlighted more than 5 different behaviour boxes?  YES / NO

How many characteristics (in the first column) are being displayed? ________________

Conclusions:
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

Daniel's teacher has observed his advanced knowledge of rocks and minerals but without a checklist she may feel unsure as to what should guide her observations, as part of the process of identification. By using a Teacher Nomination Form, Daniel's teacher can look for clusters of behaviours in the different domains of giftedness.

The next step in the process of identification is to ask Daniel's parents to complete the Parent Nomination Form. The information collected from these two subjective measures will then be combined with the information resulting from the objective measures used in the identification process.

Who else can you ask to complete teacher nomination forms?

You may be able to ask other educators, who may teach these students, also to complete the Teacher Nomination Forms. This will add greater weight to the subjective elements of the identification process.

Perhaps you could ask previous teachers of the children. Examine any information provided by the child’s preschool.

Interpreting teacher nomination checklists

When you have collated the information gathered on the Teacher Nomination Forms, you are ready to interpret it. When analysing this information, you are looking for any patterns and clusters of gifted behaviours, which you have read about in Module 1.

Look for at least one-third of these behaviours or characteristics to be highlighted on the Teacher Nomination Form.
These can either be in the positive or negative behaviours column. The more behaviours that are highlighted, the more evidence you have collected to support your belief that this child is gifted.

When you have collated the evidence from teacher nomination - together with the other subjective measures and the objective measures which we will discuss later in this Module - you should have a much clearer picture of whether or not the student is gifted, and in what areas his or her gifts lie. The information gathered from the subjective and objective measures used will be very important in determining the child’s needs, in terms of programs, provisions and curriculum differentiation.

If the teacher nomination forms show a majority of negative (rather than positive) behaviours, be aware that this often indicates underachievement in gifted students. This should lead you to investigate possible causes - which we will address in Module 4.

**Limitations of teacher nomination**

As with all identification procedures, teacher nomination has some limitations. These include:

- Teachers may not believe the student is gifted and consequently may not use the checklist to identify the student.

- Teachers trained in the use of such checklists are more accurate in the identification of gifted and talented students than those who have not had such training. Teachers without this training may identify 'moderately bright conformists' (sometimes referred to as 'teacher pleasers') rather than gifted and talented students.

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**Training in the use of teacher nomination checklists is vital if this method of identification is to be effective.**

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**Disadvantaged and culturally diverse populations**

Identification procedures which are used for the majority of gifted and talented students may not be suitable for some culturally diverse populations. Different methods of identification may be needed for students from culturally diverse, low socio-economic status or Indigenous backgrounds.

These gifted students are not lacking in ability but their ability may be masked by negative environmental or intrapersonal catalysts. Because of this, their giftedness may not be evident in the identification process.

Teacher nomination of students from disadvantaged backgrounds or culturally diverse populations is most effective when the teachers have training in gifted education and experience with students from these backgrounds.

Finally, teacher nomination for all students will be most effective when teachers have had inservice or training in the identification of gifted students. You will feel more confident in identifying gifted students in your class or school when you have completed the six Modules over the course of this program.
Conclusion on subjective measures

The information collected in this initial phase of the identification process will then be used in conjunction with the objective measures. To conclude this section we offer for your consideration a further identification principle:

Include, for further assessment, students you are not entirely sure about, rather than exclude them - and invite surprises.
Think about the students in your class. Using the knowledge you have developed from Module 1, choose three students who you think may be gifted (even if they have not yet become talented achievers).

Print out or photocopy three copies of the Teacher Nomination Form and write the names of these three students on the top.

Complete the checklist for each student by highlighting the behaviours you have observed.

Now consider other educators who may also contribute to the process. Write their names below:

Now interpret the checklist.

- Are more than four characteristics highlighted?
- Are there clusters of positive and negative characteristics?
- Is there any correlation with the information presented by other educators?
- Are there other teachers who perceive the student differently?
- Is the student a possible gifted underachiever?

Keep these teacher nomination checklists for use when collating the information gathered from the other objective and subjective measures.
Think about the students in your class. Using the knowledge you have developed from Module 1, choose three students who you think may be gifted (even if they have not yet become talented achievers).

Print out or photocopy three copies of the Teacher Nomination Form and write the names of these three students on the top.

Complete the checklist for each student by highlighting the behaviours you have observed.

Share with the group, the names of the students you have identified, using the teacher nomination form.

- Are there any names recurring, among your group?
- Is a particular gender more represented in the negative behaviours column?
- Have you selected any students whom you had not considered gifted before you completed this Module?
- What do you think other teachers would say about the students you have identified?
Objective identification measures can be used to identify gifted and talented students’ aptitude and achievement. Objective measures are tools such as standardised tests of potential or performance. Objective measures give teachers and counsellors a score, or a series of scores, which can be used to compare the students with others from their age group or cohort. These measures usually assess a variety of elements of cognitive processing or achievement, e.g., verbal reasoning or reading comprehension.

Different objective measures give us specific information about a student’s ability to achieve well in the school context. The measure may show you either a student’s potential to achieve or his current level of achievement.

A variety of objective measures exist and each measure assesses different aspects of a student’s ability to learn.

It is important to note that it is quite possible for a student to score at a level lower than her ability. However, it is almost impossible to achieve beyond one’s true ability on any test, if it is administered in the manner prescribed.

This means that a student’s test result may be an underestimation of his ability. However, if a student scores higher than you expected, it is your expectation that is likely to be at fault rather than the test score!
Psychometric assessment - IQ testing

Currently, one of the most effective measures of a student’s potential to achieve academically in school is an independent psychometric assessment, commonly known as an IQ test (Assouline, 2003; Rogers, 2002). Such tests can only be administered by a registered psychologist such as your school counsellor or guidance officer, or a private registered psychologist. The most commonly used IQ tests are the WISC-IV or the WISC-III and the Stanford-Binet-V. These tests should be available to your school counsellor or guidance counsellor. This type of test gives information about the student’s ability to reason, compared with her age peers.

A high score on such a test shows that the student has the potential to achieve well at school. However, this does not guarantee that the student will be performing well in the school context. Remember Gagné’s environmental and personalogical catalysts that can block the translation of this student’s high ability - which is measured by the test - into high achievement.

IQ tests can be given to children from as young as three years of age - the Stanford-Binet-V has norms for children as young as two-and-a-half. However, testing a very young child usually results in a score that is an underestimation of the child’s ability. This is because a young child will often become fatigued during the testing process. The test results are less likely to underestimate a child’s ability if the test is done after the age of 5 or 6. The optimum age range for testing is between 5 and 13 years.

Some IQ tests are not as effective in identifying gifted students from some culturally diverse or significantly disadvantaged groups. Other identification tools are more effective with such students. (We will explain this further below and in Module 4 on Underachievement.)

The usefulness of IQ testing has sometimes been questioned by teachers who worry that IQ scores label children. However, the purpose of identification is not to label but to diagnose a student’s level of functioning and her consequent educational needs, so that these needs can then be addressed through the provision of appropriate curriculum and program options. IQ tests are very useful tools because they can, and often do, reveal hidden potential. They can also assess students’ levels of giftedness.

Aptitude testing

Aptitude tests measure a student’s potential to perform well at school. Most aptitude tests can be given to more than one student at a time. These tests are less expensive and less time consuming than individual IQ tests administered by a psychologist. Examples of such tests are the OLSAT, The Henman-Nelson and the Kaufman. These tests are often used for entry into ability grouped classes or schools. Aptitude tests give us a good understanding of a student’s reasoning potential, particularly in a verbal context, as the majority of these rely on good reading and comprehension skills.

Aptitude tests which are administered in a group format are less effective in identifying particular groups of students:

- students from disadvantaged backgrounds and/or culturally diverse groups,
- gifted students with English as their second language, and
- students with learning difficulties.
Low aptitude test scores from students in these populations should be treated with caution because the scores may not be a true indication of their ability.

**Standardised achievement tests**

Standardised achievement tests measure a student's performance or current level of achievement. This is usually in a specific learning or subject area. These tests compare students with other students who are in the same stage or grade. Examples of such tests include any state literacy or numeracy test that has been normed across the state, such as ELLA or SNAP in NSW. Other examples of standardised tests include Maths Olympiad or UNSW competition papers, the Progressive Attainment Matrices (PAT Maths, PAT English), the Neale Analysis of Reading and the Test of Reading Comprehension (TORCH).

There are many excellent achievement tests available through companies such as the Australian Council for Educational Research (ACER), who may be able to assist you regarding the availability and purchase of such tests. Your school may already have some of these tests available for use.

Each standardised achievement test has been designed to identify a different aspect of a student's learning. When choosing a standardised achievement test it is important to understand the specific purpose of the test. For example, the NEALE Analysis of Reading measures the specific aspects of reading fluency and comprehension. It does not assess a student's ability to write lengthy responses to text or to empathise with the main character of a book.

Standardised achievement tests only measure the performance level of a student in a particular subject area. They will not identify a student's potential to achieve in that area and thus, some gifted underachievers may score poorly.

**Teacher-made tests and assessments**

Teacher-made tests and assessments can be effective identification tools for talented students who are motivated and performing well. These assessment tools can be used to compare students against their current cohort. Educators regularly use such assessments to determine students' current level of achievement. However, these tools often have a low ceiling and are unlikely to show the true level of ability of some gifted students, if the test is designed only to show mastery of basic skills.

In the early years of a child’s schooling experience standardised achievement tests are not generally used. Instead schools generally use teacher-made assessments. Teachers may use activity sheets that they have designed for such identification.

Such tests will not identify gifted underachievers and may not identify talented students who are not engaged by the assessment process.

**Off-level testing**

Off-level testing is used to identify the extent of a student’s knowledge or skill in an area of giftedness or talent. The purpose of such testing/assessment is to identify if the student has knowledge and/or skills that you would expect of a student in a higher Year level. The information gathered from such assessments can help influence the curriculum delivery and programs in which a student participates.
In the early years of school, children can be tested/assessed using activities or tests that you would use with children one year above their current grade level. For example, you might test a child’s reading level one year above their current Year placement. If the child achieves 85% or close to this score, then test him one grade/level higher again and keep doing this until he scores somewhere close to the midpoint of the final test.

**Disadvantaged and culturally diverse populations**

Gifted children are found in all cultural groups and at every level in society. However, students who come from backgrounds other than that of the dominant culture may be more difficult to identify using standard identification procedures. This is because students who come from disadvantaged or culturally diverse backgrounds may not perform well on standard objective assessments. It is well documented that Indigenous Australians, students from low socio-economic status groups and some ethnic populations often do not perform well on standardised objective measures. For this reason, educators should be cautious when interpreting these results. This is discussed in greater depth in Module 4.

If you believe the student is gifted, a guiding principle in using objective measures of identification is to believe the high scores but treat the average and low scores with caution.

The identification of gifted students from the populations noted above needs a flexible approach. Information needs to be gathered using a variety of tools which examine many facets of reasoning and expressions of giftedness. Such tools may include culture-fair standardised tests such as the Raven’s Standardised Progressive Matrices and the Goodenough-Harris Draw-a-Person Test. Other identification strategies which may be effective in such populations are authentic assessment, dynamic testing and identification through exposure to challenging teaching. Teachers need to be aware of the environmental and personal catalysts which may affect the expression of giftedness in these populations.

One way to identify underachievers from culturally diverse groups or disadvantaged populations is to use the emerging methodology of dynamic testing. This methodology represents a very promising alternative to traditional assessment in that it seeks to optimise the students’ cognitive performance, rather than simply measure it as it currently manifests itself.

**Consider the case of 5-year-old Phoung**

Phoung comes from a household where English is not spoken. She learned English in the playground at school. She is quiet and cooperative in class. Phoung achieves highly in maths but is weak in subjects where language comprehension is required.

A non-verbal test such as the Raven’s Matrices might give a better insight into Phoung’s abilities. With intensive remediation in English, Phoung’s giftedness in other subject areas may become more apparent.
Dynamic testing

Dynamic testing seeks to optimise the student’s cognitive performance and begins where one-off assessments end. Dynamic testing usually follows a pre-test-intervention-posttest format where the intervention is designed to address factors that contribute to underachievement, for whatever is causing the underachievement in class will also be influencing any identification process. Students who perform well below their potential (i.e., underachieve) in the pre-test may improve considerably in the posttest if the intervention has been effective. Those who achieve to their potential at pre-test can improve only slightly.

Consider the cases of Julia and Amelia

Julia and Amelia both scored in the 45th percentile band in a dynamic assessment pre-test, a commonly used, relatively culture-fair measure of ability to learn. Following the intervention phase Julia scored in the 48th percentile band while Amelia had advanced to the 87th percentile band, strongly suggesting that Amelia’s pre-test score represented a substantial underachievement.

If the pre-test alone had been used to assess Amelia’s potential she would have been wrongly assumed to be an ‘average’ student and thus would have become an ‘invisible’ gifted underachiever.

The Raven’s Standard Progressive Matrices (RSPM) is a non-verbal test of a child’s underlying ability to learn. The RSPM is considered to be relatively culture-fair, mainly because it does not require any literacy or specific language skill and is free of culture-specific items. Consequently, the RSPM has been recommended by some as a suitable tool to identify children from culturally diverse backgrounds. However, recent research (Chaffey, Bailey & Vine, 2003; Lidz & Macrine, 2001) suggests that non-verbal assessment may be only marginally better than other assessment methods for some culturally diverse populations. The reason is simple: the factors contributing to underachievement for these students are many and complex, with language being only one.

So ... which objective and subjective measures should I choose?

As there are so many different types available, it is clearer to analyse these in a chart format.
## Chart summary of objective and subjective testing

<table>
<thead>
<tr>
<th>Identification measure/tool</th>
<th>What the tool measures</th>
<th>Advantages</th>
<th>Disadvantages</th>
<th>Identifies gifts or talents?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual IQ test</strong> such as WISC-IV, Stanford Binet-V</td>
<td>Reasoning ability for school-based learning, compared to age peers</td>
<td>Individual administration means test anxiety can be alleviated; Standardised; Measures verbal and non-verbal reasoning; No prior knowledge required</td>
<td>Does not measure creativity; Less effective for some culturally diverse or disadvantaged groups, especially Indigenous groups</td>
<td>Objective identification tool for giftedness</td>
</tr>
<tr>
<td><strong>Group aptitude tests</strong></td>
<td>Assesses potential for school success; Compares student with age peers; Standardised</td>
<td>Less expensive than individual IQ tests</td>
<td>Does not allow for test anxiety; Measures verbal reasoning more accurately than non-verbal reasoning; Less effective for all culturally diverse students, especially Indigenous groups</td>
<td>Objective identification tool for giftedness</td>
</tr>
<tr>
<td><strong>Intelligence tests teachers can administer</strong></td>
<td>Reasoning ability for school-type learning; Compares student with age peers; Standardised</td>
<td>Less expensive than individual IQ tests</td>
<td>Less comprehensive than an independent IQ assessment; Some have a low ceiling</td>
<td>Objective identification tool for giftedness</td>
</tr>
<tr>
<td>Identification measure/tool</td>
<td>What the tool measures</td>
<td>Advantages</td>
<td>Disadvantages</td>
<td>Identifies gifts or talents?</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>------------------------</td>
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<td>-----------------------------</td>
</tr>
<tr>
<td><strong>Standardised achievement tests</strong></td>
<td>Tests school-based knowledge and skills</td>
<td>Identifies current level of achievement Tests learning gains</td>
<td>Does not measure giftedness/potential Less effective for some culturally diverse or disadvantaged children</td>
<td>Objective identification tool for identifying talented students in specific areas of achievement such as mathematics, reading, comprehension and science reasoning.</td>
</tr>
<tr>
<td>State wide literacy tests eg ELLA, SNAP, Basic Skills</td>
<td>Compares learning achievement with grade level peers</td>
<td>Compulsory</td>
<td>Low ceiling</td>
<td>As above</td>
</tr>
<tr>
<td><strong>Kaufman Test of Educational Achievement (ACER)</strong></td>
<td>Tests academic skill level in mathematics, reading, writing and oral language.</td>
<td>Standardised test that is easy to administer</td>
<td>Group test</td>
<td>As above</td>
</tr>
<tr>
<td><strong>Progressive Achievement Tests-reading, mathematics (ACER)</strong></td>
<td>Measures a student's current level of achievement in maths or reading</td>
<td>Standardised Easy to administer</td>
<td>Low ceiling and multiple choice</td>
<td>As above</td>
</tr>
<tr>
<td><strong>Woodcock-Johnson III Tests of Achievement</strong></td>
<td>Provides information about a student's academic strengths and weaknesses</td>
<td>Standardised</td>
<td>May not be relevant to Australia</td>
<td>As above</td>
</tr>
<tr>
<td>Identification measure/tool</td>
<td>What the tool measures</td>
<td>Advantages</td>
<td>Disadvantages</td>
<td>Identifies gifts or talents?</td>
</tr>
<tr>
<td>-----------------------------</td>
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<td>-----------------------------</td>
</tr>
<tr>
<td>Tests of Reading Comprehension- TORCH (ACER)</td>
<td>Identifies level of comprehension compared with a large normative sample</td>
<td>Standardised</td>
<td>Does not test ability, only level of reading Low ceiling</td>
<td>Objective identification tool for identifying talented students in specific areas of achievement such as mathematics, reading, comprehension and science reasoning.</td>
</tr>
<tr>
<td>Neale analysis of reading ability (ACER)</td>
<td>Identifies level of comprehension compared with a large normative sample</td>
<td>Standardised</td>
<td>Does not test potential</td>
<td>As above</td>
</tr>
<tr>
<td>Final year of school exams Competition papers eg UNSW Mathematics Competition</td>
<td>Tests knowledge and skills learnt in final years of school UNSW competition papers assess strengths and weaknesses</td>
<td>Large sample to compare students’ results Students who achieve high results are working above grade level</td>
<td>Costs to enter Multiple choice</td>
<td>As above</td>
</tr>
<tr>
<td>Teacher made tests/ assessments</td>
<td>Identifies school-based learning attainment, knowledge and skills Identifies learning gain</td>
<td>Identifies learning gains and compares performance with academic cohort</td>
<td>Does not measure giftedness Low ceiling Does not identify all underachievers or students from some culturally diverse or disadvantaged backgrounds</td>
<td>Objective measure of academically talented students performing in the school context.</td>
</tr>
<tr>
<td>Identification measure/tool</td>
<td>What the tool measures</td>
<td>Advantages</td>
<td>Disadvantages</td>
<td>Identifies gifts or talents?</td>
</tr>
<tr>
<td>-----------------------------</td>
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<td>---------------</td>
<td>-----------------------------</td>
</tr>
</tbody>
</table>
| Off-level/ Above-level tests | Identifies knowledge and skills above current grade level | Lifts ceiling that may affect results on grade-appropriate tests  
May identify student performance above grade level  
May identify underachievers who perform better on challenging tasks | Culturally diverse students or students from disadvantaged backgrounds may not perform well or have the skills to achieve well on such tests | Objective identification tool for academically talented students |
| Parent nomination | Observed behaviours of the child from birth | May identify early milestones  
Provides anecdotal evidence  
Parent has observed child over the long term  
Provides a wider view of the child, beyond the school context | Not objective  
Parent may not have relevant information  
Parent may not be able to compare objectively | Subjective identification tool for identifying potential and/or performance |
| Teacher nomination | Observed behaviours of student in learning setting | Teacher sees student in different academic situations  
Teacher can compare student's performance with that of others  
Teacher observes student in context other than the home | Teacher may make a judgement before using a checklist or identification support tool  
Teacher may disregard a student who displays largely negative characteristics | Subjective identification tool for identifying potential and/or performance |
How do we put all this together?

Here is a short case study. Consider what might be the recommended response to this scenario.

Helen is a quiet child who often arrives late to school. She is currently in Year 2 and walks to school with her younger brother. The two children often seem tired and a little dishevelled when they arrive at school. Helen does not complete all her work in class and often asks to leave the room to go to the bathroom.

Helen’s teacher notes that Helen reads well when tested on her reading benchmarks. However, she is concerned about this little girl who seems to have the weight of the world on her shoulders. Helen’s teacher has just started a unit on ‘roles and responsibilities’ and notes that Helen has shown a strong interest in it, asking some very mature and thought-provoking questions. Helen tells her that she is responsible for organising her younger brother and that she also has three younger siblings. She says she does not have time for breakfast as she must pack her brother’s bag. Her teacher explains how important breakfast is and organises for her to collect breakfast at the canteen before school.

What identification tools could Helen’s teacher use to ascertain whether Helen is gifted?

Recommended answer for ‘putting it together’ case study

What identification tools could Helen’s teacher use to ascertain if Helen is gifted?

Helen’s teacher gives Helen the next few levels of the reading assessment used at the school and finds that Helen is reading and comprehending texts four years above her age cohort. She also asks the teacher, who had Helen last year, about her ability. Helen’s mother is unwilling to fill in the parent nomination checklist about her daughter, as she says she is too busy. Helen’s teacher has found that the school has a copy of the Slosson Intelligence Test and administers this test. Her teacher asks the school guidance counsellor to make some suggestions as to how the school can best support Helen.
**The identification process**

Now that you have covered material on subjective and objective measures of identification, you may wonder where identification fits into the scheme of these Modules and the scheme of things in schools.

The following flow chart shows the direction that is taken in the process of identification.
1. What is the purpose of identifying a gifted student?
   (a) To compare them with other students.
   (b) To provide appropriate programs and curriculum for the students.
   (c) To give feedback to parents.
   (d) To label the child gifted and talented.

2. When trying to identify gifted and talented students we should:
   (a) Use one objective measure, as these tools are not influenced by personal opinion and bias.
   (b) Use one subjective measure, as teachers and parents are the best people to identify gifted and talented students.
   (c) Use multiple measures, comprising a combination of objective and subjective measures, according to the definition of giftedness and talent and the program.
   (d) Use one objective and one subjective measure as this will allow for balance in the identification process.

3. Explain the difference between objective and subjective measures.

4. When would you use a subjective measure and when would you use an objective measure?

5. What might be the most effective identification process for the following students?

   Read the two case studies and make recommendations for each of the given situations.

   Then read the modelled responses that we have provided. Note that these are not intended to be exhaustive; you may have thought of other constructive suggestions.
Georgina is a quiet girl in her first year at school who keenly observes what is going on in her class. She is cooperative and does the work her teacher has set for her. When she has finished her work, her favourite activity is to read the books in the classroom.

Georgina’s teacher thought she was only looking at the pictures in the books until Georgina came and asked her whether she thought that the owls in the owl baby book were going to be alright. Her teacher noted that the class had not yet read Owl Babies and asked whether Georgina’s parents had read the book to her at home. Georgina replied that she had read it at school and was concerned that even though the book had a happy ending, what would happen the next time the mother flew off to hunt for food?

What identification tools might be useful to judge the level at which Georgina is functioning, compared with her peers?

Max is a high achieving student in his third year at school. During his first year at the school his mother told his teacher that Max was clever in maths. However, the teacher thought that Max needed to do the basics and complete all of the textbook work before being given any more challenging tasks. Nevertheless, Max’s favourite subject at school that year was maths.

In his second year of schooling, his mother again came to school to tell Max’s new teacher that Max was very good at maths and enjoyed doing challenging maths work at home. However, nothing different was provided for Max that year and maths became no longer his favourite subject.

It is now Max’s third year of school and you are his teacher. Max’s mother has come to see you and is quite adamant that he is very good at maths. She is angry with the school because Max now says he doesn’t like maths any more because it’s boring.

What tools would you recommend to identify whether Max has gifts and talents?
Self Assessment Answers

1. (b)
2. (c)
3. Subjective measures are judgements based on personal observations. Objective measures are those that produce comparable scores, eg from standardised tests, that indicate potential or performance relative to a large population of other students.
4. You should aim to use a combination of both subjective and objective measures in the identification process. Objective measures may confirm observations and judgements made when using subjective measures.
5. The following modelled responses have been provided for each case study.

**What identification tools might be useful to see where Georgina is functioning, compared with her peers?**

In this case, Georgina’s teacher might recommend that she be assessed using an IQ test. Off-level testing of her reading achievement is necessary and a writing task on the topic of ‘owls’ would also add useful data. Her teacher should collect samples of her work and ask her parents to complete a Parent Nomination Form.

**What tools would you recommend to identify whether Max has gifts and talents?**

An individual IQ assessment, administered by the school counsellor, is requested by Max’s teacher. Off-level maths testing of Max would show his levels of skills and concept mastery. Max’s teacher requests that Max’s mother complete a Parent Nomination Form. She also asks Max’s past teachers to complete a Teacher Nomination Form. She is interested to see if there has been a pattern of negative behaviours or other signs that might indicate underachievement.
Questions for Reflection

Using the knowledge gained in this Module on Identification, think about which identification tools would be most useful in identifying gifted and talented students in your school.

- What are the identification tools available to you, in your school? (If you are unsure, you may wish to investigate this further.)
- Which of these tools might be best suited to identifying the gifted students in your class(es)?

Using the knowledge gained in this Module on Identification, think about which identification tools would be most useful in identifying gifted and talented students in your school.

In your group, brainstorm and discuss which identification tools are available to you, in your school. Using butchers’ paper or a table, classify these identification tools into the two categories of objective and subjective measures.

Think about the students you teach. Which of these identification tools might be best suited to identifying the gifted students in your class(es)?

Divide into groups, such as by stage. Using the knowledge gained in this Module on Identification, think about which tools might support you in identifying gifted and talented students in your stage.

Using butchers’ paper or a table, classify these identification tools into the two categories of objective and subjective measures.

Each small group is encouraged to provide feedback to the rest of the staff, to create a whole school perspective on the identification tools available within the school.
After your small group or whole staff feedback session, use a table to collate the information presented by each stage.

Analyse the results and identify any areas of need, in either subjective or objective identification tools, or both.

Evaluate the identification tools required to support staff in the identification process. From this exercise, what identification tools do your staff have and what do they need?
Resources

References

Websites
http://www.hoagiesgifted.org/identification.htm
http://ericec.org/digests/e644.html
Psychological and Educational Assessment of Gifted Children

Susan G. Assouline, The University of Iowa

An assessment is a data-gathering process designed to help answer questions and make decisions. Many assume that assessment and testing are synonymous; however, testing is but one component of an educational and/or psychological assessment. The four components are: (a) standardized tests, (b) interviews, (c) structured or unstructured observations, and (d) informal procedures (Satir, 2001). As components of a comprehensive assessment, interviews, observations, and informal procedures will be briefly addressed, but the emphasis and purpose of this chapter is to highlight and confirm testing, and standardized testing in particular, as the primary component of an assessment of a gifted student.

It is important for the reader to know what I mean by test. The simple response is that a test is a sample of behavior. However, a more complex answer lies in the pages that follow.

Anastasi (1988) defined psychological tests as, “like other tests in science, insofar as observations are made on a small but carefully chosen sample of an individual’s behavior” (p. 24). She described the function of psychological tests as the “measure [of] differences between individuals or between the reactions of the same individual on different occasions” (p. 3). In other words, psychological tests measure individual differences in samples of behavior. The behaviors being measured may be sampled from broad domains, such as intelligence or personality.

Educational tests are also measures of samples of behavior, but, as defined by Anastasi, “have been specifically developed for use in educational contexts” (1988, p. 411). Because the distinction between psychological and educational tests is not always clear, the term psychoducational has come to mean that the information used will include results from psychological as well as educational tests.

Many adjectives have been placed in front of the word test. For example, authentic, criterion-referenced, standardized, or norm-referenced. Criterion-referenced tests differ in significant ways from norm-referenced or standardized tests. Criterion-referenced tests (e.g., spelling tests) are designed to yield information that suggests an individual’s degree of competency or mastery of a pre-established level of performance or criterion. Criterion-referenced tests are an example of the informal component of an assessment. The information from a criterion-referenced test can be helpful in determining curriculum.

An authentic assessment analyzes a student’s work. Authentic assessments are especially subjective in nature. Often, the student’s work, as well as the analysis of the work, is kept in a portfolio or file, and sometimes an authentic assessment is called a portfolio assessment. Although the adjective authentic implies that this form of assessment is more valid than a standardized or norm-referenced test, that is not the case. Authentic assessments also represent the informal component of an assessment and can be rich with information about a learner.

Norm-referenced tests are developed so that a score can be compared to a representative group of individuals referred to as a normative sample. In order for the comparison to be valid, a norm-referenced test must be administered under the same (i.e., standardized) conditions for everybody. In this chapter, the terms norm-referenced and standardized are used interchangeably. Both large-group administered tests of achievement, such as the Iowa Tests of Basic Skills (ITBS), and individually administered intelligence tests are examples of norm-referenced or standardized tests.

Norm-referenced or standardized tests are perennially criticized. Wiggins (1993), for example, criticizes testing with the assertion that:

Students are tested not on the way they use, extend, or criticize “knowledge” but on their ability to generate a superficially correct response on cue. They are allowed one attempt at a test that they know nothing about until they begin taking it. For their efforts, they receive—and are judged by—a single numerical score that tells them little about their current level of progress and gives them no help in improving (p. 2).

Similar attacks are found in a variety of publications, including professional educational publications such as Phi Delta Kappan. Also, in a recent article, Wasserman laments that both the practice of standardized testing as well as criticisms of standardized testing have remained consistent throughout the latter half of the twentieth century, and argues that we should be suspicious of the motives of those advocating standardized testing. Wasserman asserts that educators should omit testing from the assessment process and revert to, “the use of informal, evaluative observations by teachers,” even though these observations may be “flawed . . . subjective . . . and it’s true that teachers’ judgments about students’ performance could be wrong, misguided, or biased” (p. 36).

In this chapter, I propose that the responsible educator should ignore Wiggins’ and Wasserman’s advice and (a) recognize that standardized tests can be extremely useful in understanding the learning needs of a gifted student, and (b) advocate for the synthesis of information from standardized tests as well as from informal assessment procedures to develop programs for gifted students.

The first part of this chapter provides the reader with an appreciation of standardized testing through the presentation of a brief history of norm-referenced testing, theories of intelligence, and giftedness. The second part presents case studies and discusses testing issues as they relate to the field of gifted education. The case studies demonstrate clearly the value of information from standardized testing for making programming and placement decisions about gifted students. The chapter concludes with a list of “consumer guidelines” that summarize important issues when assessing gifted children.

How Has the History of Testing Influenced Today’s Practices in Gifted Education?

In 1869 Sir Francis Galton published Hereditary Genius, which established the link between the terms intelligence and genius. Lewis Terman published in 1916 the U.S. version of Binet and Simon’s individual intelligence test. Terman called his version of Binet and Simon’s test the Stanford-Binet Intelligence Scale and, in 1922, used this scale to launch a study of 1,328 gifted children. The results of Terman’s study were published in a series entitled The Genetic Studies of Genius, the first volume of which was published in 1925 (Terman, 1925). Terman’s work, we see the shift in terminology from genius to gifted (Feldhusen & Jarwan, 1993). Also, through Terman’s work we see the forging of the strong link between intelligence testing and gifted.

Terman’s extensive longitudinal studies established the foundation for identifying gifted students on the basis of intellectual potential as measured by individualized intelligence tests. However, Terman was sensitive to the limitations of measuring “intelligence,” and early in the days of developing the Stanford-Binet Terman cautioned test users:

We must guard against defining intelligence solely in terms of ability to pass the tests of a given intelligence scale. It should go without saying that no existing scale is capable of adequately measuring the ability to deal with all possible kinds of material in all intelligence levels (Terman, 1925, p. 131).

Terman’s precautionary statements were prescient to the theoretical work dominating the last quarter of the 20th century. During the twentieth century, the conceptualization of intelligence evolved from a single point of view (i.e., Terman’s Stanford-Binet) into a complex perspective with several different orientations, three of which are described below: psychometric, cognitive modifiability, and information processing. Each orientation has influenced educational practice; at the same time, educational practice has influenced our views about the usefulness of intelligence tests.

The oldest and most research-based tradition of measuring intelligence is the psychometric approach (McGrew & Flanagan, 1998). Psychometric is defined as the quantitative measure of psychological traits or attributes (Satir, 2001). The psychometric
approach has resulted in thousands of tests, according to the 1999 edition of Tests in Print, there were 2,939 commercially available tests. Each test is concerned with measurement issues of reliability. Validity refers to the consistency and stability (accuracy) of scores earned by test-takers. Validity is a more exotic concept, but a brief definition of validity refers to its "appropriateness" to the domain being measured. (See Anastasi, 1986, or Hambleton, Brown, & Bryden, 1992, for more detailed explanations of reliability and validity.)

The psychometric approach to testing dominates the present-day educational system, and with good reason, as the information from norm-referenced testing can be tremendously useful in both placement and programming decisions. The psychometric approach continues to evolve. Some tests of psychometric testing, for example, Galton's measurement of sensory discrimination abilities as a way to measuring intelligence, are now extinct. Other types of psychometric tests have evolved, for example, individualized intelligence tests, and their evolution is complemented (not replaced) by the cognitive-modifiability and information-processing approaches.

A distinction is made between "static" and "kinetic" functions within an environment representing an intensive or dynamic approach to assessment (as opposed to the more "static" nature of the psychometric approach) and determining cognitive modifiability theories of intelligence. McGrew and Flanagan (1998) associate cognitive modifiability theories with Vygotsky's zone of proximal development (ZPD). ZPD is defined as "the difference between a person's average performance in isolation and one's performance when mediated by his or her guided instruction, and suggestiveness by another individual" (p. 50). Dynamic assessments evolved from cognitive modifiability theory, and, by their nature, dynamic assessments correspond to the gifted educator's vision of dynamically assessing a student's learning needs and matching those needs, with an appropriate prescription for instruction.

The information-processing approach to intelligence is characterized by analyses of how information is received and mentally operated upon during problem solving and everyday tasks. Information processing is still relatively new, so it entered the psychological scene in the 1960s. Naglieri and Kaufman (2001) refer to tests that have been developed from the information processing tradition as a new breed of instruments that provide "cognatively-based alternates to traditional IQ test technology that has dominated the field during most of the 20th century" (p. 152). Measurement of processing components by this new breed of instruments relies on psychometric procedures and principles.

Sattler (2002) provides a fascinating timeline that reviews the historical markers in cognitive and educational assessment. The timeline presented in Table 10.1 includes important dates and notes about the evolution of theories of intelligence testing as they relate to gifted education. Much of the information in Table 10.1 draws heavily from Sattler and McGrew and Flanagan (1998).

### What Types of Educational Decisions Are Conductive to Assessment?

The purpose of an assessment is to gather information relevant to making a decision. In gifted education, decisions about students usually involve (a) placement into a program and/or level and (b) type of curriculum to use within the program. Until recently, the primary reason for assessing an academically talented child was to make a decision regarding placement. For gifted children, this misunderstanding has been to obtain a measure of general intellectual ability (IQ).

Group intelligence tests are often used as a way of initially screening for students of high academic ability. At a university, for example, students receive these tests and are then assigned to individual counseling. However, one's own intellectual function is specified by experience. The Stanford-Binet Intelligence Scale is designed to measure specific functions or behaviors of every student at every age. In 1997, the Wechsler Preschool and Primary Intelligence Scale (WPPSI-IV), designed for children ages 2 to 7, was published. This version was revised and renamed the WISC-IV in 2011. The 1974 WISC was revised and renamed the WISC-III. WISC-IV is considered IQ defined as the ratio of mental age to chronological age, an unreliable, especially for adults. He developed the notion of a deviation IQ in which the examinee's score is compared with scores earned by other individuals of the examinee's age.

The best known IQ tests are the two 1957 forms of the Stanford-Binet Intelligence Scale and the Wechsler Intelligence Scale for Children. The Stanford-Binet Intelligence Scale, when compared to the WISC-III, correlated highly with Leiter International Performance Scale and was considered an extremely reliable and valid instrument for use in assessing academic success. It was considered appropriate for use with individuals as young as two years of age through adulthood.

Congress mandated Secretary of Education Sidney Martin to develop a report on the Education of Gifted and Talented (published in 1975 and commonly called the Martindale Report). From this report, a national definition of giftedness, the concept of the gifted student, was given in Table 10.2. This definition is still used in many states, and given its nature, it seems to ensure that standardized tests—especially tests of intelligence—will continue to play a role in the identification of gifted students.

Professor Julian C. Stanley initiated the Talent Search Model. Although the Talent Search consists of a few hundred students each year, it is the beginning of the twenty-first century, hundreds of students are participating annually in the Talent Search.

In 1975, US. PL 94-142, protecting the right to equal education for all handicapped children, was passed. In 1990 this law was updated and renamed the Individuals with Disabilities Education Act—IDEA. There was a reauthorization in 1997, and amendments in 1999. PL 94-142 was a watershed in education, education, and parents were more aware of assessment and special needs, as well as retraining to accommodate students with special needs.

Howard Gardner proposed a Theory of Multiple Intelligences. Gardner's theory resulted in a series of instruments, and is recognized, however, is not yet a standardized test exists to measure the multiple intelligences. Robert Sternberg introduced a Triarchic Theory of Intelligence. Sternberg's theory, like Gardner's, is also contrary to a single, universal theory of intelligence. McGrew and Flanagan (1998) stated that Sternberg's theory has not held up as well when judged against established standards of validity.

Table 10.1  Twentieth Century Timeline of Cognitive and Educational Assessment

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1904</td>
<td>Spearman introduced the concept of a two-factor theory of intelligence—a general factor (g) of intelligence and one or more specific factors (s). Spearman's emphasized intelligence—mental ability—as a unifying trait.</td>
</tr>
<tr>
<td>1960</td>
<td>Alfred Binet and Theodore Simon developed an IQ test intended to measure intelligence quotient, to 1960, and received a kindergarten child's ability to use standard testing that began in the early 1900s. This effort resulted in the Binet-Simon Scale.</td>
</tr>
<tr>
<td>1916</td>
<td>Stanford University Professor Lewis Terman published an extended standardized form of the Binet-Simon Scale (under the name of the Stanford Revision and Extension of the Binet-Simon Scale). Terman's scale forms the foundation for current applications of the psychometric theory of intelligence testing to measurement. This scale and its subsequent revisions represent the classic application of Spearman's theory of intelligence testing.</td>
</tr>
<tr>
<td>1940</td>
<td>The Iowa Every-Pupil Tests of Basic Skills (later renamed the Iowa Tests of Basic Skills) were developed by E. F. Lindquist and his colleagues at the University of Iowa. The ITBS represents a large-scale achievement testing program. The Iowa Tests of Basic Skills are used from the ITBS to identify students for programs.</td>
</tr>
<tr>
<td>1957</td>
<td>The 1957 version of the Binet-Simon Scale was revised by Lewis Terman and his colleague Maude Merrill and renamed the Stanford-Binet Intelligence Scale.</td>
</tr>
<tr>
<td>1965</td>
<td>Louis Thurstone introduced a &quot;multiple&quot; intelligence theory. In direct contrast to Spearman's g theory, the and the Diezel test, the Primary Mental Abilities Test, portrayed intelligence as equally weighted multiple abilities, including, verbal, number, and spatial ability.</td>
</tr>
<tr>
<td>1969</td>
<td>David Wechsler published the Wechsler-Bellevue Intelligence Scale. Revisions of this scale, as the Wechsler Adult Intelligence Scale (WAIS) were published in 1955, 1961, and 1977. (Note: In 1914 David Wechsler was introduced to the measurement of intelligence through his experience as a U.S. Army private in the Army's large-scale testing program.)</td>
</tr>
<tr>
<td>1974</td>
<td>The Wechsler Intelligence Scale for Children (WISC) designed for children ages 6 to 16, was published. The WISC tests use a point-scale format. The underlying assumption of a point-scale format that is items are designed to measure general abilities or behaviors of every student at every age. In 1967 the Wechsler Preschool and Primary Intelligence Scale (WPPSI), designed for children ages 3 to 7, was published. The WPPSI-R was published in 1991. In 1974 the WISC was revised and renamed the WISC-III and in 1991 the WISC-IV was revised and renamed the WISC-IV.</td>
</tr>
<tr>
<td>1987</td>
<td>WISC was considered IQ defined as the ratio of mental age to chronological age, an unreliable, especially for adults. He developed the notion of a deviation IQ in which the examinee's score is compared with scores earned by other individuals of the examinee's age.</td>
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<tr>
<td>1995</td>
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<tr>
<td>1972</td>
<td>Congress mandated Secretary of Education Sidney Martin to develop a report on the Education of Gifted and Talented (published in 1975 and commonly called the Martindale Report). From this report, a national definition of giftedness, the concept of the gifted student, was given in Table 10.2. This definition is still used in many states, and given its nature, it seems to ensure that standardized tests—especially tests of intelligence—will continue to play a role in the identification of gifted students.</td>
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<td>1985</td>
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</table>
Table 10.2 1972 and 1993 Federal Definitions of Gifted and Talented

| Part A: 1972 Federal Definition (Public Law 91-230, section 805) |
|---|---|
| Gifted and talented children are those identified by professionally qualified persons, who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school programs in order to realize their contribution to self and society. Children capable of high performance include those whose demonstrated achievement and/or potential ability in any of the following areas, singly or in combination: |

1. general intellectual ability
2. specific academic aptitude
3. creative or productive thinking
4. leadership ability
5. visual and performing arts
6. psychomotor ability

It can be assumed that utilization of these criteria for identification of the gifted and talented will encompass a minimum of 3 to 5% of the school population.

| Part B: 1993 National Excellence Report Definition (Based upon the Federal Javits Gifted and Talented Education Act) |
|---|---|
| Children and youth with outstanding talent perform or who show the potential for performing at remarkably high levels of accomplishment when compared with others of their age, experience, or environment. These children and youth exhibit high performance capability in intellectual, creative and/or artistic areas, possess an unusual leadership capacity, or excel in specific academic fields. They require services or activities not ordinarily provided by the schools. Outstanding talents are present in children and youth from all cultural groups, across all economic strata, and in all areas of human endeavor. |

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Two Case Studies

The two separate cases in Figures 10.1 and 10.2 demonstrate the usefulness of tests as part of the assessment process for gifted placement and programming. Figure 10.1 is a report of an assessment of Fred, an extremely able student. At the time of the report, Fred was placed in first grade in accordance with his age. However, as noted throughout the report, the first grade curriculum was so underchallenging that Fred was very frustrated, and his parents requested a grade-skipping from first to seventh grade. Parents and school officials were much intractable in their positions and were ready to go to court for a placement ruling.

Throughout the report, there is a School Psychologist's Perspective of the Assessment (SPPA), which details the motivation for which tests were selected as well as the interpretation of the results. The purpose of reproducing the assessment report and the SPBA is not to recommend specific tests, but demonstrate how the tests "saved the school day" for this very gifted student.

For Fred, both the immediacy as well as the long-term indicators of success were extremely positive. Six months after the results from the psychological assessment were used to accelerate Fred from first grade to a third grade class, the unanimous conclusion was that the placement and the program were tremendously successful. The school personnel gained a new appreciation of Fred's ability and achievement, and the discussions about Fred opened up new opportunities for other gifted students.

Fred entered Purdue University at the age of eleven. He graduated from Purdue with a Doctor of Pharmacy degree at the age of 17, and enrolled in a Ph.D. program at Rockefeller University in New York. Fred's case was litigious for two reasons: (a) he was extremely capable, and (b) there was a great deal of defensive reluctance by the educators because the results from the screening were incongruent with their informal observations. Cases like Fred's do not have to be controversial if educators and psychologists use the information from tests of ability, aptitude, and achievement to make decisions about placement and programming. Fred's assessment occurred prior to the development of the Iowa Acceleration Scale (IAS), which is discussed below and sections of which are presented in Figure 10.2. However, a discussion similar to that promoted by the process of using the IAS occurred with Fred, and it was that group discussion, based upon assessment data, that fostered an appropriate placement and program for this extremely gifted student.

An essential component to Fred's assessment was the professional administration and interpretation of the tests within the context of the information that had been gathered informally. An appreciation for the special programming needs of academically able students also is crucial. Additionally, it was important to convey this information to parents and educators in a way that would serve the child.

What is the Role of Assessment in Whole-Grade Acceleration Decisions?

Despite the unequivocal evidence (DeHaan & Havighurst, 1961; Galliegher, 1996; Kulik & Kulik, 1984) supporting whole-grade acceleration as a programming option for gifted students, acceleration— or grade-skipping—remains a contentious issue. Prior to the publication of guidelines for grade advancement (Feldhusen, Proctor, & Black, 1980), most decisions concerning grade acceleration were based upon the selective biases of a school administrator. In some instances, decisions about acceleration were precluded by a district's ex parte policy against acceleration. The Feldhusen et al. article was helpful to many gifted educators and parents of gifted students who found themselves in the role of advocate for acceleration without the tools to advocate effectively.

1. See Chapter 21 by Kulik.
Fred is right-handed and has worn corrective lenses for four months.

Interpretation of Results:
Tests Used

- Raven's Progressive Matrices (RPM)
- Stanford Diagnostic Reading Test (Green Level, Form A)
- Stanford Diagnostic Mathematics Test (Green Level, Form A)
- Sequential Tests of Educational Progress (STEP): Basic Concepts and Computation

One of the goals of the present evaluation was to determine Fred's academic progress relative to his ability. Fred was asked to complete the Raven's Progressive Matrices, an untimed nonverbal test of figural reasoning. For this test, the individual is presented with 60 meaningless figures and is asked to discern the nature of the pattern for each figure and complete the relations. Fred correctly completed 41 out of 60 figures in 35 minutes and earned a score surpassing 99% of the 8-year-olds in the normative sample (the highest raw score earned by the 8 1/2-year-olds in the normative sample was 34). Thus, compared to the highest score earned by his age-mates in the normative sample, he was able to answer correctly 7 more items than the top-scoring individuals. This is a significant discrepancy from the highest score earned by his age-mates and confirms that Fred's ability to form comparisons, reason by analogy, and organize spatial perceptions and systematically related wholes, as measured by this well-standardized instrument, is superior—indeed when compared to children two years older than he.

During an interview with Fred's father, Dr. D, he described Fred's routine at home. The family chose not to have a television in their home, and evenings were devoted to study and exploration of world events. It was obvious that Fred had been presented with considerable factual knowledge; however, all evidence indicated that he was ready not only for the exposure to this knowledge, but to process the information with reasoning skills that surpass those of bright students in higher grades. The results of the RPM support this observation.

Superior ability to process information and to attend to learning tasks in rare and requires careful tailor-
ing of an individualized educational plan that will provide an optimal match between Fred's ability and achievement. The two previous psychological reports included a screening of spelling, reading, and mathematics. The present assessment of reading and mathematics was more diagnostic in nature.

Reading: The Green Level (Form A) of the Stanford Diagnostic Reading Test was administered. The Green Level is designed for students in grades 3, 4, and 5 and provides comparative scores for a sample of students in those grades. Fred worked quickly through the sub-tests. The final passages were to be read silently, but Fred vocalized each of those passages. Even though he worked quickly, he was not impulsive in his responses and he rechecked his answers to the questions.

When compared to fourth graders, Fred earned the percentile rankings reported below. Grade equivalent scores represent the typical performance of students in a specified grade. Because Fred is not a typical student, grade equivalents are not generally good comparative indicators, however, for our purpose of determining where to begin instruction, it was appropriate.

<table>
<thead>
<tr>
<th>Stanford Diagnostic Reading</th>
<th>Grade Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Green Level—Form A)</td>
<td>(Compared to fourth graders)</td>
</tr>
<tr>
<td>Auditory discrimination</td>
<td>92  7.3</td>
</tr>
<tr>
<td>Phonetic analysis</td>
<td>95  12.0</td>
</tr>
<tr>
<td>Structural analysis</td>
<td>83  5.8</td>
</tr>
<tr>
<td>Auditory analysis</td>
<td>51  3.9</td>
</tr>
<tr>
<td>Literal comprehension</td>
<td>74  4.7</td>
</tr>
<tr>
<td>Inferential comprehension</td>
<td>43  3.7</td>
</tr>
</tbody>
</table>

The "lowest" grade equivalent score (earned for inferential comprehension) was two grade levels above his present placement. The highest (earned for phonetic analysis) was beyond grade 12. Relatively speaking, Fred's auditory vocabulary, literal comprehension, and inferential comprehension, as measured by these sub-tests of the Stanford Diagnostic Reading Test, are not as well developed as his ability to discriminate auditorily, analyze the relationships between sounds and letters (phonetic assessment. The screening instruments from the previous assessments were inadequate for this task. The tests that were chosen were diagnostic in nature and were administered so that specific suggestions regarding programming could be made.

The Standard Reading Inventory (SRI) was also administered, and the hypothesis that Fred's decoding skills were more developed than his comprehension skills was confirmed by the results of the SRI. He orally read the fourth- and fifth-grade passages with only a few minor pronunciation errors. It was noted that he read in a monotone. We did not do beyond the fourth- and fifth-grade passages, but he could probably read passages at a much higher grade level. However, it is unlikely that he could comprehend passages at the junior high grade levels. His silent reading speed was at the instructional level for grade 4, but not for grade 5.

Instructionally, Fred reached frustration (correctly answered four of ten comprehension questions for both silent and oral reading) at the fourth-grade level. He correctly answered four of the ten comprehension questions for the fifth-grade oral reading passage, but he answered only two of the ten comprehension questions correctly for the fifth-grade silent reading passage. He vocalized while he was reading this passage.

Coupled with the information from the Stanford Diagnostic Reading Test, it appears that providing material at an advanced third- or fourth-grade level would be instructionally appropriate. Fred's ability to process written words will continue to be far superior to his ability to comprehend for several more years. Fred could probably read a sixth- or seventh-grade social studies text, but his thinking is not yet sophisticated enough to comprehend the material fully and draw inferences. He needs time to allow underlying cognitive functions necessary for comprehending to develop and mature.

Reading: Fred needs only limited instruction in decoding or phonics. It is recommended that an instructional program emphasize the development of his comprehension skills. His overall comprehension is at an advanced third-grade or beginning fourth-grade level, and instruction with materials at
The Basic Concepts test designed for grades 6-9 was too difficult, as evidenced by his performance: Fred required all 40 minutes to answer 24 of the 50 questions; and he correctly answered only 14 questions, which placed him at the 8th percentile when compared to ninth graders. It was decided not to give him the middle schooljunior high level of the Computation test. There was concern that he would be unnecessarily frustrated.

Therefore, the lower level of the STEP Basic Concepts and Computation tests, which were designed for grades 3-5, was administered. On this level of the Basic Concepts test, Fred correctly answered 30 out of 40 items in 35 minutes. When compared to second-quarter fifth graders, this score is at the 83rd percentile. Eight of the 12 mixed items required manipulation of number concepts. On the Computation subtest, Fred correctly answered 33 out of 34 items in 28 minutes. This score is at the 90th percentile when compared to second-quarter fifth graders.

**Recommendation for Mathematics:** The fact that Fred did so well on both of the tests designed for third through fifth graders indicates that he has relatively few gaps in his mathematics knowledge base. The biggest concern is that he does not rush too quickly into pre-algebra and algebra because he needs time to allow for the development of the necessary cognitive structures that will foster success in more abstract mathematics such as algebra and geometry. Unlike many extremely precocious students, Fred has not developed sloppy habits. He did not do all of his work in his head; rather, he was careful to work out the problems on scratch paper. However, if he remains unchallenged, he will most likely develop poor work habits because performing computations mentally will be one of the only ways that he can mentally challenge himself.

**Summary and General Recommendations:**
Given Fred's superior performance on the two previously administered individual intelligence tests, as well as his superior performance on the RPM, one would predict that his academic achievement would be at least two grade levels above that of his age-grade-mates. Indeed, Fred has fully utilized his superior academic ability and has achieved at a level commensurate with that ability. Fred has excellent concentration and attending skills and could easily these levels would probably provide sufficient challenge. To continue developing his comprehension skills, Fred needs: (1) time for the underlying cognitive processes to mature, and (2) the opportunity to interact with students who are at a similar level of comprehension. These students will likely be found in higher grades. If Fred is accelerated into third or fourth grade, it would be appropriate to place him with the most advanced reading group.

Although his reading comprehension skills are (relatively) not as superior as his skills at decoding words, they are still superior when compared to those of his age-grade-mates. The fact that his ability to comprehend ranges from two to four grade levels above his age-mates means he will need special arrangements for reading instruction. A whole-language approach to reading and writing instruction might foster Fred's progress in each of these areas. However, it would be important not to use a grade-level basal for whole-language instruction. Rather, Fred will need exposure to literature such as that provided by the Great Books Series.

**Mathematics:** Mathematics was the other curriculum area for which programming recommendations were needed. Three mathematics tests were administered before finding one that was appropriately difficult. The Green Level (Form A) of the Stanford Diagnostic Mathematics Test was the first test administered. The green level was developed for students in grades 4, 5, or 6. Fred finished the whole test in less than an hour (95 minutes is allowed). When compared to fifth graders, he earned the following percentiles for the three sub-tests:

<table>
<thead>
<tr>
<th>Stanford Diagnostic Mathematics Test</th>
<th>Percentile Rank Compared to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subtest</td>
<td>Fifth Grader</td>
</tr>
<tr>
<td>Number system and numeration</td>
<td>86</td>
</tr>
<tr>
<td>Computation</td>
<td>85</td>
</tr>
<tr>
<td>Applications</td>
<td>94</td>
</tr>
</tbody>
</table>

The Stanford Diagnostic Mathematics Test did not appear to be sensitive enough to prescribe specific instruction. Therefore, the Basic Concepts and Computation tests of the Sequential Tests of Educational Progress (STEP) were administered.
succeeded in third- or fourth-grade material. For some tasks, such as decoding and basic computation, even fourth-grade material will be too easy for him.

The more routine school tasks (i.e., decoding of words and basic mathematics computation) are about as fully developed as can be expected for a 6 ½-year-old child, and his ability to concentrate and attend has been well honed. Fred is at a critical point in his academic development. He will not lose his ability to learn, but if he is not sufficiently challenged he may lose his love for learning and will likely develop poor study habits.

- With regard to his general reading comprehension, placing him in an advanced third-, fourth-, or fifth-grade class seems most appropriate.
- Because his reading and math comprehension skills seem to be equally developed, it would make sense to consider whole-grade rather than subject-matter acceleration. For subjects such as science and social studies, Fred is probably ready to begin receiving instruction at a third-, fourth-, or even fifth-grade level. Pre-testing in these subject areas would be appropriate.

The school system is fortunate that Fred's parents are able and willing to fill in any gaps in Fred's instruction that might occur as a result of accelerating Fred by two or more grades. When students who have superior ability to learn are tutored at home, it is sometimes believed that the parents' opinions are suspect because parents have invested so much in their child's education. My sense of the situation is that Dr. D has tapped into his son's strengths and has helped his son realize those strengths. Fred took the tests at the Belin-Blank Center by himself and demonstrated extremely mature behavior. His behavior was more similar to that of a mature, extremely intelligent eight- or nine-year-old. His demeanor is like that of a well-behaved upper elementary student.

Fred has achieved through home schooling provided by his parents, but he needs the opportunity to interact with peers. He also needs exposure to extracurricular activities and contests, such as spelling bees, the Mathematical Olympiad for Elementary Students, and science projects that are typically assigned in the upper elementary grades. It determining an appropriate placement for Fred, attention should be paid to the most academically comfortable setting; that is, third-, fourth-, or fifth-grade, as well as the most emotionally comfortable setting. The receiving teacher(s), parents, and administrators should discuss the most appropriate setting.

An understanding teacher who can adequately prepare his or her class to welcome a new student (who is younger, yet equally or more able), and who can communicate effectively with the parents is most important.

- I have recommended that Dr. and Mrs. D continue to provide enriching educational experiences for their son. However, it was suggested that these experiences might focus on opportunities that are not traditionally offered in the public school. For example, Fred would probably do well if exposed to one or two foreign languages, as well as a musical instrument. Activities in sports and social groups such as Cub Scouts are also to be encouraged. When he is old enough (probably around age 11 or 12), Fred would probably benefit from summer academic programs offered by universities such as the University of Iowa.
- Follow-up every three or four months with the Belin-Blank Center Staff, to be initiated by Dr. and Mrs. D is strongly recommended.

Figure 10.1 Psychological Interpretive Report.

Southern and Jones (1991) and Passow (1993) raised the debate about the advantages of acceleration forward. In 1993, Assouline, Colangelo, and Lupkowski published the Iowa Acceleration Scale (IAS), a guidance tool designed to facilitate discussions and decisions about acceleration. In 1999, the manual for the Iowa Acceleration Scale (IAS) (Assouline, Colangelo, Lupkowski-Shoplik, & Lipcon, 1999) was published. The Iowa Acceleration Scale (IAS) and the accompanying manual were developed to guide educators in making recommendations about accelerating a student. Because no single definition exists as to what qualifies a student for whole-grade acceleration, one goal of the IAS is to provide exclusionary indicators of the appropriateness of acceleration as an educational option for students in Kindergarten through eighth grade.

The indicators of the IAS include school-related issues, such as class attendance and the student's attitude toward learning; developmental factors, such as body size and fine and gross motor coordination; interpersonal skills, which assess how effectively a student interacts with others; and attitude and support of the principal individuals involved in the student's academic life. These issues represent the informal components of the IAS.

The IAS also requires information from tests of academic achievement and ability. With respect to academic ability, a formal measure of intelligence is one of the critical aspects underlying acceleration decisions using the IAS. Both group-administered and individually administered test scores can be used. A score representing superior intelligence is required before other indicators on the IAS can even be
Figure 10.2 The Iowa Acceleration Scale.

IAS Example: Jenny
The Iowa Acceleration Scale Form*

Section I: General Information

Part A: Student Information

Student Name

Student Address

Student Phone Number

Present School

School Address

Date of IAS Completion

Student's Date of Birth

Student's Chronological Age

Part B: Family Information

Father

Mother

Does parent live with child?

Does parent live with child?

Names of Siblings

Age

School Grade

Year

Month

Day

Occupation

Occupation

Gender

Gender

Name

Part C: Child Study Team Information

Names/Position of Individuals Participating in Acceleration/Decision/Planning:

Principal

Parent (Guardian)

Present Teacher

Receiving Teacher

Other (e.g., Gifted Ed. Coordinator, School Counselor, School Psychologist)

Name of Person Completing this Form: Mrs. E.

Position: G/T Coordinator

Who initiated the consideration of acceleration? Student

Parents

Educator

(Please indicate name: _______ and position: _______)

Sections II through V have been omitted from this figure. See the IAS manual for a detailed description of these sections.

Section VI: Academic Ability and Achievement

Part A: Ability Test Results

NOTE: although an IQ score is not a perfect measure of ability, research has shown that individualized intelligence test scores are excellent predictors of academic success.

For each item below, circle the number to the right of the response that best describes the results of tests which the student has completed.

On an individualized intelligence test (name of test: WISC-III) administered within the last three years, the student's overall IQ score was:

Please circle one

Between one and two standard deviations above the mean (115-129)

Between two and three standard deviations above the mean (130-144)

Three or more standard deviations above the mean (145-above)

If a score is unavailable, an individualized IQ test, such as the WISC-III, Binet IV, or W-J Cognitive Ability Scale, should be administered and the results incorporated into this decision-making process about acceleration. (If the score is below 115, see Sections II, Critical Items.)

Comments or concerns: Verbal Score in Superior Range, Performance Score in High Average to Above Average Range. This is NOT a concern.

Part B: Achievement Test Results

Grade level achievement test administered within the last year:

Name of test:

Please indicate the type of test used: Individual Group

Above-grade level achievement test administered within the last year (if available):

Name of test:

Please indicate the type of test used: Individual Group

*Sections of the Iowa Acceleration Scale (IAS) have been reprinted with permission of Great Potential Press (formerly Gifted Psychology Press). This publication, or parts thereof, may not be reproduced in any form without written permission of Great Potential Press.
Section X: Attitude and Support

19. Planning for Acceleration Prior to Completing the IAS Form

No prior planning or gathering of information has taken place or been shared regarding this student's acceleration.
Limited staffing, information sharing, and planning have occurred regarding this student's acceleration.
Extensive staffing, planning, and discussion have occurred regarding this student's acceleration.
Comments or concerns: ________________

Section XI: Scale Subtotals, IAS Grand Total, and Guidelines

Is the Academic Ability and Achievement (AAA) Subtotal Score ≥ 50? Yes ___ No ___
If the AAA Subtotal is < 10, do not consider whole-grade acceleration.

Academic Ability and Achievement Subtotal: 12 of a possible 32 points
School and Academic Factors Subtotal: 18 of a possible 22 points
Developmental Factors Subtotal: 6 of a possible 9 points
Interpersonal Skills Subtotal: 14 of a possible 16 points
Attitude and Support Subtotal: 8 of a possible 11 points

Add the above five scale subtotals together to equal the IAS Grand Total:

Iowa Acceleration Scale Grand Total: 55 of a possible 90 points

Guideline for Interpreting the Iowa Acceleration Scale Grand Total:

70 to 90 total points: Student is an excellent candidate for whole-grade acceleration. Acceleration is recommended.
54 to 69 total points: Student is a good candidate for whole-grade acceleration. Acceleration is recommended.
43 to 53 total points: Student is a marginal candidate for whole-grade acceleration. There is no clear recommendation. Review materials closely and carefully consider alternatives.
42 or fewer total points: Whole-grade acceleration is not recommended. Consider single-subject acceleration, mentoring, enrichment, or other alternatives.
Analysis of Team Decision and Outcome

Jenny:

Current Grade: 3rd Grade, with acceleration in Reading and Language Arts
Proposed Grade for Acceleration: 5th Grade
IAS Score: 95 (Good Candidate for Whole-Grade Acceleration)

Overall, Jenny is a good candidate for acceleration into the 5th grade. One concern did suppress her score, and this was indicated in Section VII. Item 1, Grade Placement Consideration. Jenny earned a zero on this item, because acceleration at this point in time would result in a mid-year change in buildings—she would be moved from the elementary school to the junior high school. Because the acceleration is still recommended, however, a plan needs to be in place so that Jenny can make the necessary adjustments in the new environment. This plan includes specifically implementing some of the typical transition activities experienced by fourth graders.

Note: In reality, Jenny's acceleration took place several years ago. Because of this, we have been able to track her progress. At the beginning of the trial period, Jenny was treated much like a transfer student and was given special consideration regarding the change in her routine. In no time, though, her mother reported that Jenny had adapted to the new setting like "a fish in water." A critical factor to the success of this intervention was the receiving teacher's willingness and openness to having Jenny in her class. This set the tone for the rest of the class. Additionally, the teacher at the receiving school was involved in the planning phase of the acceleration process, which eased some of Jenny's anxieties. It was clear from the beginning of the process that Jenny knew what she wanted and was willing to work with the teachers to assure that she was in a challenging setting.

Jenny was very satisfied with her school experience as a result of the acceleration. She was appropriately challenged, and her enthusiasm for school remained undiminished throughout high school and into college. All indicators continue to confirm that the acceleration was a successful educational intervention.

Jenny's Letter to the Principal

Dear Mrs. S,

I find that the work I'm being given is very discouraging because its much too easy.
Most of it I know so I do the work catch as and I have to wait for the others to catch on.
The grade I'd like to go to best would be college but since I can't have something more challenging. Say for instance I could go to any grade I want as long as I'm in Presidential Elementary or Presidential Middle School. I'd like to be in 5th Grade I don't know if it would be nice to go there and see what its like. I don't care if I leave Presidential Elementary cause I really don't have any thing really important or even friends that I'd miss.

Sincerely, Jenny

Jenny expressed her desire to be skipped into a higher grade. Her motivation and advanced language skills are apparent in this poignant letter. The absence of above-level testing information should be noted. When Jenny's case was presented, the availability of above-level testing through elementary talent searches was relatively limited, and Jenny's school district was not participating at that time. Nonetheless, the team's ultimate decision was that she be accelerated.

When Is an Assessment Important for a Gifted Student?

Identification and Programming

The National Association for Gifted Children (1998) Pre-K—Grade 12 Gifted Program Standards includes guidelines for guiding principles, two of which are relevant to a discussion about assessment. Principle 3 states that, "A student assessment profile of individual strengths and needs must be developed to plan appropriate intervention. Exemplary standards for this principle state that "Individual assessment plans should be developed for all gifted learners who need gifted education. An assessment profile should reflect the gifted learner's interests, learning style, and educational needs." Principle 4 states that, "All student identification procedures and instruments must be based on current theory and research." The exemplary standards for this principle include: "Student assessment data should come from multiple sources and include multiple assessment methods. . . . Student assessment data should represent an appropriate balance of reliable and valid qualitative and quantitative measures."

Although these standards are well intended, they do not provide the typical educator of the gifted with a clear guide on how to use these steps to develop an assessment profile for a gifted student. However, only through an assessment will educators be able to provide students with a curriculum that is based upon the learner's needs.

The Twice-Exceptional Student

The twice-exceptional student is exceptional in at least two ways: (a) Giftedness is one of the exceptionalities, and (b) one or more disabilities, for example, a physical, learning, and/or emotional disability, represents the second exceptionality. Combining the terms gifted and learning disabled may seem to pose a conflict in some, especially to those who may still adhere to Terman's (1925) conclusions. Although Terman's work is important because it dispelled the myth of the sickly, socially awkward child and introduced us to the gifted child as an individual with superior intelligence, in good health, and socially well adjusted, these same conclusions masked our awareness that some gifted children also had physical, learning, or social-emotional exceptionalities that needed to be addressed.

Since the 1975 passage of PL 94-142, there is increased public awareness regarding the characteristics of all students with disabilities. Public awareness has grown to recognize that many students with disabilities are also gifted, and vice versa. For comprehensive discussions on students who are gifted and learning disabled, see Brody and Bills (1997) and Cohen and Vaughn (1994). Kaufmann and Castellanos (2001) provide an excellent review of the gifted student with ADHD, and Neihart (2000) points to giftedness in Asperger's Syndrome are under-identified because some of their behaviors are not considered to be attributed to learning disabilities.

For most students who are twice-exceptional, an IQ test is a critical first step to discovering their giftedness, but the analysis of the IQ test profile must go beyond the score to look at patterns of strengths and weaknesses, especially within the context of the new theories of intelligence.

Which Tests Are Recommended for the Assessment of Gifted Students?

Assouline and Lupkowski-Shoplik (in press) have developed educators and parents "Consumer Guidelines for Educational Assessments," which includes:

1. The assessment question guides the selection of tests and drives the recommendations. Parents should be

2. In the IAS manual, Jenny's case is reproduced in its entirety. Sections of Jenny's case have been reprinted in Figure 10.2 with permission of the publisher, Great Potential Press, formerly Gifted Psychology Press.

Involving in formulating the assessment question.

2. Know what types of tests are appropriate and useful for obtaining the needed information. A general ability test can be helpful in predicting success in school, but won't give enough specific information about a student's specific aptitude, for example, mathematics, to determine placement in a mathematics class or programing without that class.

3. Confirm that the person conducting the assessment has appropriate training. A teacher who is familiar with the directions can administer some tests. Other tests require extensive training, and the person administering them usually has an advanced degree.

4. Test results should be reported in written form. This report should include the actual test scores, which should be presented within an educational context. A test score, by itself, is of little value.

5. Verify that the report will include several specific recommendations individualized to the child who was tested. A photocopy of lists of pre-validated educational practices is not acceptable.

6. Reports should be completed and sent in a timely fashion, that is, within one month after the assessment has been completed. Parents should be notified of any delays.

7. Parents should know whether a test will be administered in a group or individually. If the test is administered in a group, parents should know in advance whether the test is designed for electronic response, paper and pencil response, or whether the student will simply listen.

8. Cost may be an issue for some parents. At one end of the cost-contingent testing might be done through the school district at no cost to parents. At the other end, some parents might pay several hundred dollars, especially for a thorough assessment that includes an individualized intelligence test.

SUMMARY AND CONCLUSIONS

This chapter highlighted the brief history of testing and its role in the educational lives of gifted children. Much of the chapter was a defense of testing as the primary way in which psychologists and educators obtain the information necessary for placement and programming. Although the general public, as well as some educators, sometimes criticize testing as an unnecessary educational practice, there is strong evidence that testing should continue to be an integral part of the education of all students, and gifted students in particular. The two case studies demonstrated the importance of a professional interpretation of the results from testing to the educational decision-making process.

QUESTIONS FOR THOUGHT AND DISCUSSION

1. What can an individualized intelligence test tell you about a student? How do you score from an IQ test to the understanding of a student’s learning needs?

2. According to Asselstine, testing is one of four components of an assessment. Why was testing described as the most important component? How do the other three components fit into an assessment?

3. Imagine that a school board member wants to eliminate testing from the gifted education program to save money. The person believes that testing should be replaced with “portfolio assessment.” List five to seven points from this chapter that would allow you to respond to this board member’s recommendation.

4. Think of an elementary student in your school district who needs accelerated experiences. How would testing fit into your curriculum planning for that student?

5. Some gifted students also have a learning and/or social emotional disability. How can an assessment help educators and parents achieve a better understanding of such a student?

REFERENCES


Welcome!

You are about to start a Professional Development Course which will help you identify the gifted and talented students in your class or your school, and differentiate the curriculum to respond to their individual learning needs. You'll also be able to decide which of your students may benefit from various forms of ability or interest grouping and which may possibly be candidates for one or more of the many forms of academic acceleration.

About the Package

The course consists of six Modules

Each Module consists of three levels: Core, Extension and Specialisation. The Core levels of the six Modules are the heart of this course. The Core Modules contain essential information and practical advice and strategies to assist you to identify and respond to your gifted and talented students.

We strongly suggest that you complete the Core level of each Module.

Pre-tests

We are aware that teachers and school administrators will enter this course with a wide range of existing knowledge of gifted and talented education. To accommodate this range of knowledge and experience, we have started each Core Module, from Module 2 onwards, with a pre-test. We encourage you to take these pre-tests and, if you ‘test out’ on any Module at Core level, simply move on to the next Module. For example, if you ‘test out’ of Core Module 2 you will pass over that Module and move on to Core Module 3.

Extension and Specialisation Levels

Extension and Specialisation levels for each Module. Material covered in the Extension and Specialisation levels builds on the knowledge you will have gained from the Core level in each Module. Key issues are examined in greater depth and participants explore a wider range of issues in the cognitive and social-emotional development of gifted students. New identification, curriculum differentiation and program development techniques are introduced.

The Extension and Specialisation levels require teachers, counsellors and administrators to undertake further reading and practical activities to reflect on classroom practice, school practice and policy. They encourage participants to focus on their specific role in the school and prepare a brief action plan to demonstrate application or mastery of outcomes.

Schools may decide that completion of the course at Specialisation level would be a useful prerequisite for becoming the school's Gifted Education Coordinator.
What will you learn in this course?

The course consists of six Modules:

**Module One: Understanding Giftedness**
Understanding the nature of giftedness and talent; what the terms mean; levels and types of giftedness. Cognitive and affective characteristics of gifted and talented students; ways in which these students may differ from their classmates - even if at first we don’t observe this.

**Module Two: The Identification of Gifted Students**
A range of practical identification procedures, with particular attention to procedures which are effective in identifying gifted students from culturally diverse and disadvantaged groups. We’ll be emphasising the use of a combination of approaches rather than a single measure such as IQ testing or teacher nomination used in isolation.

**Module Three: Social and Emotional Development of Gifted Students**
Understanding the social and emotional characteristics and needs of gifted students. Ways in which gifted students may differ somewhat from their classmates in their social and emotional development. Supporting gifted students and their parents. Teaching strategies and class structures which foster the development of positive social attitudes and supportive peer relationships in gifted students.

**Module Four: Understanding Underachievement in Gifted Students**
Understanding the causes of underachievement in gifted students. Identifying gifted underachievers and planning interventions designed to prevent and reverse cycles of underachievement.

**Module Five: Curriculum Differentiation for Gifted Students**
Teaching strategies and methods of curriculum differentiation which enhance the learning of gifted students in the regular classroom. Appropriate use of different enrichment models that international research has found to be effective with gifted and talented students. Practical applications of pre-testing, curriculum compacting and individualised programming.

**Module Six: Developing Programs and Provisions for Gifted Students**
Practical strategies for the establishment and monitoring of ability, achievement or interest grouping, and the many forms of accelerated progression. Particular attention will be paid to the effects of various strategies on students’ academic and social development.
Using the package

Much of the material is suitable across teaching and learning contexts. This content is not specifically marked. However, content that may be applicable to your particular context is identified as follows:

<table>
<thead>
<tr>
<th>Role</th>
<th>Classroom Teacher</th>
<th>Executive Staff</th>
<th>Principal</th>
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<tr>
<td>ct</td>
<td>RULE</td>
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<tr>
<th>Location</th>
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<td>u</td>
<td>LOCALITY</td>
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<tr>
<th>Mode</th>
<th>Self Study</th>
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<tr>
<td>ss</td>
<td>MODE</td>
<td>sg</td>
<td>WS</td>
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</table>

Follow these symbols through the content to customise your learning path.

Each Module comes in two parts, each concluding with a practical exercise. We suggest that you complete the first and second parts a few days apart - unless this is not workable in your particular learning context. This will give you a chance to digest the information in Part 1 and work through the Reflective/Practical component.
# Core Module 2:
Identification of Gifted and Talented Students

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Module 2

Identification of Gifted and Talented Students

Welcome to Module 2, Identification of Gifted and Talented Students. In this Module you will become familiar with some of the tools and techniques that are used to identify giftedness and talent in students at different levels of schooling.

This is a challenging process, as each school will have students with different characteristics, circumstances and needs.

As will become clear throughout this Module, the key purpose of identifying gifted and talented students is to serve them with a program and curriculum that meet their needs.
1. What is the main purpose of identifying a gifted student?
   (a) To compare them with other students.
   (b) To provide appropriate programs and curriculum.
   (c) To give feedback to parents.
   (d) To label the child gifted and talented.

2. When trying to identify gifted and talented students we should:
   (a) Use one objective measure, as these tools are not influenced by personal opinion or bias.
   (b) Use one subjective measure, as teachers and parents are the best people to identify gifted and talented students.
   (c) Use multiple measures, comprising a combination of objective and subjective measures, according to the definition of giftedness and talent used by the school and the nature of the program.
   (d) Use one objective and one subjective measure as this will allow for balance in the identification process.

3. Explain the difference between objective and subjective measures.

4. When would you use a subjective measure and when would you use an objective measure?

5. What might be the most effective identification process for the following student? Read the case study and make recommendations.

   Lynne, a Year 5 student, is constantly checking with her teacher to see that she is ‘getting it right’. She often seems worried and her teacher discovers that her parents have her attending coaching college three evenings a week in the hope of gaining a place in a selective high school.

   Lynne achieves well in many KLAs but performs poorly in test situations. Her parents have been asking the school to help Lynne perform better at school as they want her to go to a selective high school.

   What tools might we use to assess whether Lynne’s parents are expecting too much or whether Lynne is underachieving because she is feeling stressed?
1. (b)
2. (c)
3. Subjective measures are judgements based on individuals’ personal observations. Objective measures are those that produce comparable scores, eg from standardised tests, that indicate potential or performance relative to a large population of other students.
4. You should aim to use a combination of both subjective and objective measures in the identification process. Objective measures may confirm personal observations and judgements made when using subjective measures.
5. The following modelled response has been provided for the case study.

**What tools might we use to identify whether Lynne’s parents are expecting too much or whether Lynne is underachieving because she is feeling stressed?**

Lynne’s teacher recommends an IQ assessment and collects a portfolio of her best work. He also asks Lynne’s previous teacher to complete a Teacher Nomination Form. Lynne’s teacher does not think that it is a good idea to above-level test this student, as she is anxious about tests - instead he organises to talk her through an above-level series of examples in maths so that Lynne is unaware that she is being assessed. It would also help to collate Lynne’s results from the state-wide literacy and numeracy tests and any large-scale competitions she has entered.

**Outcomes**

At the completion of this Module, you will:

- understand the purpose of identification.
- understand the difference between objective and subjective identification tools and when to use them.
- be aware of various tools available for identification.
- appreciate the need for multiple identification criteria.
Identification as an ongoing process

As discussed in Module 1, gifted and talented students have different learning needs from those of their age peers of average ability and therefore need special educational planning to support them in developing their potential. The first step in helping these students is to find them - and this is commonly termed identification.

Just as it is important to identify students with learning disabilities and assess their particular learning needs on the learning continuum, it is also necessary to identify each gifted child’s specific learning needs and current level of achievement. The purpose of identifying a gifted child is to provide appropriate learning experiences (Richert, 2003).

Once a student has been identified as gifted, we can then use appropriate educational interventions and strategies in order to move them along the learning continuum. In the process we may unearth additional gifts in specific areas, identify students whose needs are not being met by the current curriculum and provide evidence for inclusion in a particular program. These are both the main purposes of identifying gifted and talented students and the desired outcomes of successful identification.

Identification is not intended to label children once and for all as gifted or not gifted. Rather, it is an ongoing process, with a diagnostic purpose, just as it is for students in other special needs groups. Identification should occur throughout a child’s educational journey. New contexts and developmental changes may alter the expression of different abilities at various times, requiring ongoing identification. It is a shared responsibility between parents, teachers, counsellors and trained professionals. Periodic assessment is required as students’ gifts grow and change.

In a nutshell, we can see the process of identification as ongoing:

- Definition of program
- Nomination
- Evaluation and continued identification
- Assessment / identification
- Appropriate curriculum differentiation / program
When identifying gifted students we need to know not only whether they are gifted and/or talented but also in what domain(s) the gifts or talents are sited.

**Rationale**

Identification of gifted and talented students can be a complex issue and the selection of the most suitable tests, checklists and other tools for your school is very important. Choosing the ‘right’ tools will help you provide defensible interventions for gifted and talented students (Borland, 1989). By defensible we mean that your school can affirm that you are using the best methods available, so that your selection or placement decisions are soundly based and therefore fair and valid. Your school will be able to explain that your identification processes aim to identify as many as possible of the gifted and talented students at the school, using a variety of reliable and valid data collection processes.

The rationale behind the way gifted and talented students are identified is dependent on the definitions of giftedness and talent that the school adopts. The Gagné model is the rationale behind the identification system used in this Professional Development Course, so this model will guide our discussion of identification tools and their use. If you are looking for students who are either gifted or talented (or both, with some gifts having been successfully translated into talents and others still to be assisted), you need to use a variety of tools that will allow you to identify high potential as well as high performance. Identification procedures need to take into consideration the important issue that some gifted children freely express their abilities at school, while others may not.
Principles of effective identification

There are several important principles, supported by research, to guide you in your endeavours to identify gifted students effectively and confidently. These include:

- Using tools and strategies that are prescribed by, or in harmony with, the definitions of giftedness and talent adopted by your school (eg Gagné’s, as described in Module 1).
- Using multiple criteria, so that you may identify as many of your gifted students as possible, using a variety and balance of both subjective and objective measures.
- Ensuring that the tools and strategies you use are reliable and valid.

Reliability refers to the accuracy or consistency of an identification method (eg teacher nomination may be considered to have low reliability if two teachers estimate quite differently the potential in a particular domain of the same student, or group of students).

Validity refers to the extent to which an identification method measures what it is supposed to measure (eg parent nomination may be considered to have low validity if all students in a comprehensive school are rated as gifted).
Reliability and validity will be expanded upon in the Extension and Specialisation levels of this Module.

- Examining the intrapersonal and environmental catalysts which are influencing the expression of giftedness.
- Establishing equity of procedures to ensure that no one is overlooked. This will include considering children from disadvantaged backgrounds, and taking into account cultural influences.
- Beginning the identification process early to help prevent chronic underachievement.
- Providing appropriate education (eg in pace and level). We will cover this in the subsequent Modules.

The range of identification measures which the school adopts should be designed to identify all of the gifted and talented students in the school population.

So, how do we know what are the best measures?

Identification measures fall into two basic categories: subjective and objective measures.

**Subjective measures** allow judgements to be made on the basis of structured observations of the student. These include teacher, parent, peer and self nomination, along with anecdotal records contributed by previous teachers and the child’s family.

**Objective measures** are standardised tests of ability or achievement. These include IQ tests and other forms of psychometric testing, standardised performance tests, dynamic testing and off-level testing.

You may also see these two types of measures referred to as **quantitative** (objective) and **qualitative** (subjective). Effective identification of gifted children requires evidence from both categories.

Effective identification will provide:

- evidence of both students’ ability (potential) and their current level of performance.
- pointers to underachievement, including information about the environmental and personalogical catalysts, which may be influencing students’ current performance. (You may wish to re-read the section on Gagné in Module 1 which outlines the possible impact of these catalysts).
- information that initiates appropriate curriculum and programs.
Did you know that effective identification will help you to identify underachieving gifted students, including students from culturally diverse and disadvantaged populations?

(You can read more on this, later in this Module, and in Module 4).

Not all gifted students perform well in the school system

The school should also employ identification procedures which are designed to find students who are not achieving at levels commensurate with their ability, due to negative effects of intrapersonal and environmental catalysts. These students are called gifted underachievers and in Module 4 we will explain some of the reasons why underachievement is so prevalent among gifted and talented children and adolescents.

A wide range of strategies must be used to assist identification. The tools you use will depend upon the child’s age, need, location, background and the resources available to you in your school, district or system. These will be different for each individual in each school. A defensible identification process must contain a balance of objective and subjective measures.

Subjective measures

Giftedness has many dimensions and so should the identification process. Subjective measures allow teachers, parents, peers and the students themselves to use checklists and other descriptors which help them make evaluative judgements about a student’s ability.

Parent nomination

Parents are a valuable source of information. No one knows a child, particularly a young child, better than their parent. Parents have information on both the positive and negative characteristics of their children, particularly in the first five years of life before schooling begins. They know their children’s areas of interest and passion.

Significant areas of advanced development can be readily observed in young children and it is the parent who is the ‘keeper’ of this information.

Parents may be aware of the ages at which their child moved through stages of speech acquisition, physical development milestones, stages of prereading and early reading, and the development of numeracy and early interests. Early development of speech, movement and reading are strong predictors of high intellectual ability. Gross’s (2004) study of exceptionally gifted children recorded children who sat up at four months, uttered their first meaningful word by eight months and walked up stairs by nine months. Clearly, these children demonstrated learning which was significantly in advance of their peers. These behaviours occurred long before school entry. They were observed by parents: their teachers weren’t around at the time! It is essential to
involve parents in the identification process if we are to gain a whole picture of the child. Early development and milestones will be expanded upon in the Extension and Specialisation levels of this Module.

Teachers are often sceptical that parents may overestimate their child’s abilities. However, parents of gifted young children more often underestimate their child’s abilities, as they may see them as normal, compared to siblings or other family members. In a family where children are developmentally advanced, what parents consider to be normal development may later be seen as substantially advanced when the child enrols in school.

Teachers do not see these early developmental stages. Parents are more likely to know when particular areas of strength are most evident - and this can be a very useful aid to the identification process. To assist parents to record this valuable information, a set of questions which allows an anecdotal example to be provided, is a most useful tool for identification. Be aware that for some cultural groups there may be reticence to nominate a child or that cultural norms may hold back or hide gifted students. This is particularly true where it is culturally inappropriate to stand out.

A variety of parent checklists is available and your state or territory may have a preferred version. However, one that we recommend, developed by Professor Michael Sayler of the University of North Texas and already used in a number of Australian schools, is included below for your use.
GERRIC RESOURCES
GIFTED AND TALENTED CHECKLIST FOR PARENTS
THINGS MY CHILD HAS DONE

Carefully read each of the following descriptions. Each item is followed by a series of examples; use the examples to help understand the description in the item. Decide how much you agree that your child is like the description. Mark your agreement on the scale from strongly agree (SA) to strongly disagree (SD). Fill in one circle for each item. If you are unclear or haven’t noticed how your child compares to an item, fill in the Unsure or don’t know circle. Then, tell us about a time your child did the things in the item. Try to recall specific incidents or examples about your child. Feel free to add extra pages of stories or examples to tell us more about your child.

Child’s name:__________________________ Child’s birthday:__________________________

Your name:__________________________ School name:__________________________

Date:__________________________

My child:

1. Has quick recall of information.
(e.g. immediately remembers facts, series of numbers, events, words from songs or movies, or parts of conversation heard earlier)

SA ★★★★★★★★★★★★★★★ SD
A personal example:

★ Unsure or don’t know

2. Knows a lot more about some topics than do other children that age.
(e.g. recounts facts about dinosaurs, sports, electronics, maths, books, animals, music, art, etc; finds out a lot about a particular subject on his or her own)

SA ★★★★★★★★★★★★★★★ SD
A personal example:

★ Unsure or don’t know

3. Uses advanced vocabulary.
(e.g. surprises older children and adults with the big words used; uses words unusual for a child, knows the correct terms, exact words or labels for things; acts and speaks like a grown-up when talking to adults; uses simpler words when talking to peers or younger children)

SA ★★★★★★★★★★★★★★★ SD
A personal example:

★ Unsure or don’t know
4. Began to read or write early.
(e.g. said or could read individual words at a very young age; started to read before entering school;
likes to write or tell stories; learned to read without being taught)

SA 1 1 1 1 1 1 1 1 1 1 SD 〇 Unsure or don’t know
A personal example and age of child at the time:

5. Shows unusually intense interest and enjoyment when learning about new things.
(e.g. has lots of energy and interest when learning; frequently and persistently asks how and why
questions; is not satisfied with simple answers; wants to know details; loves how-to-do-it and
nonfiction books)

SA 1 1 1 1 1 1 1 1 1 1 SD 〇 Unsure or don’t know
A personal example:

6. Understands things well enough to teach others.
(e.g. teaches other children how to do things; explains things so that others can understand;
explains areas of interest to adults)

SA 1 1 1 1 1 1 1 1 1 1 SD 〇 Unsure or don’t know
A personal example:

7. Is comfortable around adults.
(e.g. spends time with and talks to adults who visit the house; likes the company of adults;
enjoys talking with adults; understands adult humour and creates funny sayings or jokes adults
can appreciate)

SA 1 1 1 1 1 1 1 1 1 1 SD 〇 Unsure or don’t know
A personal example:

8. Shows leadership abilities
(e.g. other children ask my child for help; organises games and activities for self or others; makes
up the rules and directs group activities; may be bossy)

SA 1 1 1 1 1 1 1 1 1 1 SD 〇 Unsure or don’t know
A personal example:
9. Is resourceful and improvises well.
(e.g. puts together various household objects to make inventions or solve a problem; uses unusual objects for projects; uses objects in unusual ways; makes ‘something out of nothing’)

SA ⬤ ⬤ ⬤ ⬤ ⬤ ⬤ SD  ❄️ Unsure or don’t know
A personal example:

10. Uses imaginative methods to accomplish tasks.
(e.g. makes creative short cuts; doesn’t always follow the rules; good at finding creative ways to get out of work)

SA ⬤ ⬤ ⬤ ⬤ ⬤ ⬤ SD  ❄️ Unsure or don’t know
A personal example:

11. Use the rest of this page or its back to tell us anything you think is important about your child that we have not asked about. Please feel free to add any information you think might be useful in giving us a clear picture of what your child has done. Be as specific as possible in describing your child’s interests and accomplishments. If you can share some copies of your child’s creative work, we would be delighted to have them.
Here is an example of a useful parent checklist item on Sayler’s ‘Things My Young Child Has Done’:

Checklist item:

**My child:**

1. **Has quick accurate recall of information.**

(eg remembers complex happenings and describes them long afterwards in clear details; learns notes and words to songs quickly; remembers landmarks and turns on the way to familiar places.)

SA 10 9 8 7 6 5 4 3 2 1 0  SD 0 Unsure or don’t know

A personal example:

An example of a parent response to the above checklist item, follows;

**My child:** Antonio Tamaro

SA 10 9 8 7 6 5 4 3 2 1 0  SD 0 Unsure or don’t know

A personal example:

Antonio was only 18 months old when his grandparents moved house. After his first visit to Grandma’s, he directed the way home from the back seat of the car by pointing. The 20-minute trip was achieved perfectly. By age two-and-a-half he could remember the words to 20 nursery rhymes, which all had to be recited every night!

It is clear that Antonio has an excellent memory, both verbally and spatially. However, more than one item is required in order to develop an overall picture of Antonio’s ability. Using a detailed parent nomination form will assist the teacher to note the overall pattern of Antonio’s behaviours, early interests and passions.

It is sometimes easy for educators to dismiss parent information or anecdotes as parental pride. However, it is these anecdotes which tell you, the teacher, just how early the child was displaying specific behaviours. This will also allow you to assess just how different the child is from his or her age-peers. Parents will be more likely to cooperate when you explain that you are interested in knowing more about their child and the way he or she learns.

**Limitations of the parent nomination checklist**

As with all identification procedures, parent nomination has some limitations. For example:

- A parent may not be fully aware of the degree of a child’s advancement.
- Adoption or fostering may mean that consistency of information has not been maintained.
• A parent may not be able to read, interpret or understand the nomination form due to language, literacy or cultural barriers.
• Parents may not have all the relevant information, due to family breakdowns.
• For a variety of reasons, parents may refuse to complete the form.

**Interpreting parent checklists**

Interpreting parent checklists means reading carefully through the information given and asking yourself:

• Are there gifted behaviours being observed at home?
• Are there early milestones achieved at a younger age than the norm?
• Are more than a third of the items illustrated with descriptive anecdotes?

This information should indicate whether the child is displaying observable gifted behaviours, which can then be combined with information from the other subjective and objective measures the school can use.

**Teacher nomination**

Module 1 presented a range of learning characteristics and social-emotional characteristics of gifted students. These characteristics are readily observable if teachers know what they are looking for. Certainly, poor teacher nomination can occur when teachers make a subjective judgement without the support of checklists or other tools. For example, teachers may associate giftedness only with high performance. However, many gifted children may not outperform or even equal their peers on everyday classwork. Rather it is on complex, more advanced work, in the student’s area of high ability, that you may see greater evidence of giftedness.

A behavioural checklist is a useful tool for teacher nomination. It may facilitate structured observation of both positive and negative behaviours in students. Teachers wanting to identify their gifted students sometimes make the mistake of looking only for positive behaviours.
However, gifted children who are frustrated, bored or switched off learning will rarely be feeling positive about their school experience - and boredom and frustration are rarely manifested in positive ways! Gifted underachievers are unlikely to be identified by teacher checklists which consist only of positive descriptors.

Here is an example of how a characteristic can be described in both its positive and negative forms:

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Positive Behaviour</th>
<th>Negative Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>High level of curiosity and a wide variety of interests</td>
<td>Investigates ideas, remembers things in great detail, asks questions.</td>
<td>Easily diverted from the task, takes on too many projects, asks questions at inappropriate times.</td>
</tr>
</tbody>
</table>

Scenario of a classroom setting

Mrs McCarthy would describe 12 year-old William as a dreamer, rather average and not particularly interested in much that goes on in the classroom. He floats through class and seems to be miles away, lost in his thoughts most of the time. He usually performs poorly on his written work and misses instructions, needing these to be given again and again. However, on weekends, William belongs to the Geologists Society, which is run by Mr Cameron, a geology teacher from the local high school.

William loves nothing more than spending his weekends digging for fossils and classifying rocks. He has quite a collection even though he is at least 20 years younger than most other members of the Society. The adults in the group refer to him as ‘Professor William’ and when they unearth a new find, ask for his opinion. They describe his level of knowledge as that of an expert. He dreams of becoming an archaeologist or anthropologist (he is yet to decide!) and has made some significant finds.

William rushes through his homework in order to get on to more interesting things. He sees school as a waste of time and ‘saves himself’ for his research. He has a documented journal of his fossicking adventures and records in great detail what he has discovered each trip. He also enjoys emailing the adults in his fossicking group, asking questions and planning future trips.

Mrs McCarthy and Mr Cameron would have very different views of William. However, a checklist of behaviours employed after seeing William engaged in his passion area of geology and ancient civilisations would elicit a very different profile from his daily class work. Therefore, it is crucial when using teacher nomination that you give students the opportunity to engage in an area of advanced and complex content. You can then look for demonstrated behaviours that indicate gifted characteristics.

Students need to engage in challenging and complex activities in order to demonstrate advanced thinking and complex reasoning. For example, curiosity may only be evident when there is something to be curious about. Use of sophisticated humour may only manifest itself when children are given the opportunity to be ‘cleverly’ funny.
You may need to design a range of complex activities in order to elicit these gifted behaviours.

Be careful not to use the 'shopping list' approach, whereby you observe a student for 10 minutes, aiming to tick off all the items which describe the student. Structured longer-term observation is more valid. You should observe the child over a period of time, during which different experiences are offered and specific behaviours can be observed.

Teacher nomination forms or checklists come in many styles. Your state or territory may have a preferred version. However, the following table is an alternative which you can use.
Primary and Secondary Teacher Nomination Form

Record the name of your student. Use a highlighter to show each behaviour you observe in the classroom or playground.

Name of Student: ___________________________  Age: _______________
Teacher: _________________________________  Date: ________________

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Behaviours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unusual alertness</td>
<td>• intense concentration and interest in interactions and objects</td>
</tr>
<tr>
<td></td>
<td>• long attention span</td>
</tr>
<tr>
<td>Advanced play behaviour</td>
<td>• interest in games with rules developed at an earlier age than usual</td>
</tr>
<tr>
<td></td>
<td>• able to play games which require strategy earlier than age-peers</td>
</tr>
<tr>
<td>Exceptional memory</td>
<td>• ability to recall information in great detail. Often tells stories to the teacher with a immense amount of detail.</td>
</tr>
<tr>
<td>Early reading</td>
<td>• ability to read on entry to school</td>
</tr>
<tr>
<td>Rapid pace of learning</td>
<td>• appears to acquire knowledge effortlessly</td>
</tr>
<tr>
<td></td>
<td>• ability to generalise the knowledge to new situations in unexpected ways</td>
</tr>
<tr>
<td>Asks lots of questions</td>
<td>• ask probing and reflective questions</td>
</tr>
<tr>
<td>Early development of classifying and investigating skills</td>
<td>• organises things by classifying into groups</td>
</tr>
<tr>
<td></td>
<td>• investigates how things work and wonders ‘what will happen if …’</td>
</tr>
<tr>
<td>Exceptional mathematical ability</td>
<td>• capacity to grasp abstract mathematical concepts at unusually early age</td>
</tr>
</tbody>
</table>
### Imagination
- has an imaginary friend or animal
- creative and inventive storyteller

### Early speech
- love of rich vocabulary; larger than expected vocabulary compared with age peers
- capacity to create complex sentences

### Early social interactions
- early awareness of the individuality of others
- intense concern for other children who are hurt

### Feelings of frustration
- frustrated if motor coordination lags behind intellectual development, such as pencil grip
- may be resistant to writing or drawing

### Heightened sensitivity
- early capacity to empathise with feelings of others

### Social and emotional maturity
- emotionally more like older children and may seek them out as friends
- may be isolated from same-age peers because of his or her more mature interests and perceptions

### Early awareness of difference from others
- norm-references to other children from an early age
- may deliberately begin making mistakes to be like other children

---

Caroline Merrick, 2004

### Scoring the Checklist

Have you highlighted more than 5 different behaviour boxes? **YES / NO**

How many characteristics (in the first column) are being displayed? __________

Conclusions:

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________

---
Let’s look at how Mrs McCarthy would score William on a Teacher Nomination Form:

**Primary and Secondary**

**Teacher Nomination Form**

*Record the name of your student. Use a highlighter to show each behaviour you observe in the classroom or playground.*

<table>
<thead>
<tr>
<th>Name of Student:</th>
<th>William Harris</th>
<th>Age: 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher:</td>
<td>Mrs McCarthy</td>
<td>Date: Nov 2004</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Positive Behaviours</th>
<th>Negative Behaviours</th>
</tr>
</thead>
</table>
| Highly curious | • asks lots of questions  
• inquisitive  
• remembers details | • asks inappropriate questions  
• poor group participant  
• easily diverted from task |
| Abstract thinker | • makes generalisations  
• tests out ideas | • questions others  
• questions authority |
| Flexible thinker | • employs variety of strategies to work something out | • manipulates people and situations by using a variety of strategies |
| Clever use of humour | • enjoys ‘adult’ humour  
• gets teachers’ jokes! | • uses humour at the expense of others |
| Superior Vocabulary | • heightened involvement in discussions  
• enjoys adult-like discussions | • may be bossy or overbearing when working with others |
| Advanced Reading | • reads widely  
• advanced vocabulary and comprehension | • reads constantly  
• neglects peer interaction and work-prefers to read |
| Retention of knowledge; fast learner | • moves beyond core content and skills quickly  
• detailed recall of facts | • rushes work, then disrupts others  
• monopolises class discussions |
| Long attention span | • concentrates and focuses on an area of interest for a long period of time | • easily distracted unless the task is an area of passion or interest |
| Independent | • self-directed  
• focused on task in research or study | • reduced involvement in discussion or group work  
• uncooperative in a group |
| High level of responsibility and commitment | • sets attainable goals  
• learns to accept own limitations  
• tolerant of peers in a group | • self-critical  
• perfectionist when completing tasks  
• sets unrealistic expectations for other group members |
| Strong feelings and opinions | • listens to others  
• shows concern and interest  
• considers others’ points of view  
• aware of others’ feelings | • speaks out and lacks tact  
• over-reacts to others’ comments and reactions  
• confrontational |
| Strong sense of justice | • empathises with those less fortunate  
• wants to ‘save the world’  
• stands up for other children whom they think have been poorly treated | • argues the rules in games eg handball  
• frustration when others don’t play exactly by rules  
• asks older children or adults to solve issues seen as ‘unfair’ |
| Original and creative | • comes up with ideas ‘out of the box’  
• sees problems as a whole  
• connects thoughts and feelings | • unaccepting of status quo  
• absent-minded or daydreamer  
• asks unrelated questions  
• disorganised |
| High energy level | • wide variety of interests  
• organises time well  
• high level of individualised learning | • often difficult to live with  
• may appear hyperactive  
• easily bored so seeks out new things to explore |
| Immersion learner | • wants to know everything about a topic  
• becomes an expert on a topic by reading widely or talking to people | • focuses on topics of interest to them, at the expense of classroom work  
• shows off knowledge to prove others wrong |

Caroline Merrick, 2004  
Adapted from Gross, MacLeod, Drummond & Merrick (2001), Clark (1983) and Baska (1989)

**Scoring the Checklist**

How many positive behaviours are being displayed?  1

How many negative behaviours are being displayed?  11

Have you highlighted behaviours in more than 5 different behaviour boxes?  YES

Of which behaviours are you observing more:  NEGATIVE

Conclusions:

William is displaying a majority of negative behaviours and should be further considered, using other identification tools. Follow up this teacher nomination form by speaking with his parents to find out if there are any other teachers who teach William in or out of school, eg music, drama, basketball. Ask William’s parents to complete a Parent Nomination Form. Record any objective test results, which may be on file. Consider other identification tools, particularly objective measures, such as an IQ assessment and off level testing.
Now let's look at how Mr Camerony would score William on a Teacher Nomination Form:

## Primary and Secondary Teacher Nomination Form

*Record the name of your student. Use a highlighter to show each behaviour you observe in the classroom or playground.*

| Name of Student: | William Harris | Age: 12 |
| Teacher:          | Mr Cameron    | Date: Nov 2004 |

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Positive Behaviours</th>
<th>Negative Behaviours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly curious</td>
<td>• asks lots of questions</td>
<td>• asks inappropriate questions</td>
</tr>
<tr>
<td></td>
<td>• inquisitive</td>
<td>• poor group participant</td>
</tr>
<tr>
<td></td>
<td>• remembers details</td>
<td>• easily diverted from task</td>
</tr>
<tr>
<td>Abstract thinker</td>
<td>• makes generalisations</td>
<td>• questions others</td>
</tr>
<tr>
<td></td>
<td>• tests out ideas</td>
<td>• questions authority</td>
</tr>
<tr>
<td>Flexible thinker</td>
<td>• employs variety of strategies to work something out</td>
<td>• manipulates people and situations by using a variety of strategies</td>
</tr>
<tr>
<td>Clever use of humour</td>
<td>• enjoys 'adult' humour</td>
<td>• uses humour at the expense of others</td>
</tr>
<tr>
<td>Superior Vocabulary</td>
<td>• heightened involvement in discussions</td>
<td>• may be bossy or overbearing when working with others</td>
</tr>
<tr>
<td></td>
<td>• enjoys adult-like discussions</td>
<td></td>
</tr>
<tr>
<td>Advanced Reading</td>
<td>• reads widely</td>
<td>• reads constantly</td>
</tr>
<tr>
<td></td>
<td>• advanced vocabulary and comprehension</td>
<td>• neglects peer interaction and work-prefers to read</td>
</tr>
<tr>
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<td>• moves beyond core content and skills quickly</td>
<td>• rushes work, then disrupts others</td>
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<tr>
<td></td>
<td>• detailed recall of facts</td>
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<tr>
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<td>• easily distracted unless the task is an area of passion or interest</td>
</tr>
<tr>
<td>Independent</td>
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<td>• reduced involvement in discussion or group work</td>
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<tr>
<td></td>
<td>• focused on task in research or study</td>
<td>• uncooperative in a group</td>
</tr>
<tr>
<td>High level of responsibility and</td>
<td>• sets attainable goals</td>
<td>• self-critical</td>
</tr>
<tr>
<td>commitment</td>
<td>• learns to accept own limitations</td>
<td>• perfectionist when completing tasks</td>
</tr>
<tr>
<td></td>
<td>• tolerant of peers in a group</td>
<td>• sets unrealistic expectations for other group members</td>
</tr>
</tbody>
</table>
| Strong feelings and opinions | • listens to others  
• shows concern and interest  
• considers others’ points of view  
• aware of others’ feelings | • speaks out and lacks tact  
• over-reacts to others’ comments and reactions  
• confrontational |
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• asks older children or adults to solve issues seen as ‘unfair’ |
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• shows off knowledge to prove others wrong |

Caroline Merrick, 2004  
Adapted from Gross, MacLeod, Drummond & Merrick (2001); Clark (1983) and Baska (1989)

**Scoring the Checklist**

- How many positive behaviours are being displayed? 15
- How many negative behaviours are being displayed? 1
- Have you highlighted behaviours in more than 5 different behaviour boxes? YES
- Of which behaviours are you observing more: POSITIVE

Conclusions:

William’s scientific knowledge is quite phenomenal. He is displaying many of these gifted behaviours, most of which are in the column of positive behaviours. I was more than happy to complete this Teacher Nomination Form for you, Mrs McCarthy. Please call me if you would like any further details.
Mrs McCarthy has identified clusters of William’s negative characteristics while Mr Cameron has identified positive characteristics. Individually, these checklists both show gifted behaviours. However, looking at both checklists, we can see how different patterns emerge in different contexts. In Mrs McCarthy’s class, William is gifted but not showing it. With Mr Cameron, he emerges as highly talented!

Who else can you ask to complete teacher nomination forms?

You may be able to ask other educators, who may teach these students, also to complete the Teacher Nomination Forms. This will add greater weight to the subjective elements of the identification process.

Perhaps this student participates in extracurricular activities, such as art, band or chess. These teachers may have valuable observations to contribute to the process.

Interpreting teacher nomination checklists

When you have collated the information gathered on the Teacher Nomination Forms, you are ready to interpret it. When analysing this information, you are looking for any patterns and clusters of gifted behaviours, which you have read about in Module 1.

Look for at least one-third of these behaviours or characteristics to be highlighted on the Teacher Nomination Form.

These can either be in the positive or negative behaviours column. The more behaviours that are highlighted, the more evidence you have collected to support your belief that this child is gifted.

When you have collated the evidence from teacher nomination - together with the other subjective measures and the objective measures which we will discuss later in this Module - you should have a much clearer picture of whether or not the student is gifted, and in what areas his or her gifts lie. The information gathered from the subjective and objective measures used will be very important in determining the child’s needs, in terms of programs, provisions and curriculum differentiation.

If the teacher nomination forms show a majority of negative (rather than positive) behaviours, be aware that this often indicates underachievement in gifted students. This should lead you to investigate possible causes - which we will address in Module 4.

Limitations of teacher nomination

As with all identification procedures, teacher nomination has some limitations. These include:

- Teachers may not believe the student is gifted and consequently may not use the checklist to identify the student.
- Teachers trained in the use of such checklists are more accurate in the identification of gifted and talented students than those who have not had such training. Teachers without this training may identify ‘moderately bright conformists’ (sometimes referred to as ‘teacher pleasers’) rather than gifted and talented students.
Training in the use of teacher nomination checklists is vital if this method of identification is to be effective.

Disadvantaged and culturally diverse populations

Identification procedures which are used for the majority of gifted and talented students may not be suitable for some culturally diverse populations. Different methods of identification may be needed for students from culturally diverse, low socio-economic status or Indigenous backgrounds.

These gifted students are not lacking in ability but their ability may be masked by negative environmental or intrapersonal catalysts. Because of this, their giftedness may not be evident in the identification process.

Teacher nomination of students from disadvantaged backgrounds or culturally diverse populations is most effective when the teachers have training in gifted education and experience with students from these backgrounds.

Finally, teacher nomination for all students will be most effective when teachers have had inservice or training in the identification of gifted students. You will feel more confident in identifying gifted students in your class or school when you have completed the six Modules over the course of this program.

Conclusion on subjective measures

The information collected in this initial phase of the identification process will then be used in conjunction with the objective measures. To conclude this section we offer for your consideration a further identification principle:

Include, for further assessment, students you are not entirely sure about, rather than exclude them - and invite surprises.
Think about the students in your class. Using the knowledge you have
developed from Module 1, choose three students who you think may be
gifted (even if they have not yet become talented achievers).

Print out or photocopy three copies of the Teacher Nomination Form and
write the names of these three students on the top.

Complete the checklist for each student by highlighting the behaviours
you have observed.

Now consider other educators who may also contribute to the process.
Write their names below:

Now interpret the checklist.

- Are more than four characteristics highlighted?
- Are there clusters of positive and negative characteristics?
- Is there any correlation with the information presented by other
  educators?
- Are there other teachers who perceive the student differently?
- Is the student a possible gifted underachiever?

Keep these teacher nomination checklists for use when collating the
information gathered from the other objective and subjective measures.
Think about the students in your class. Using the knowledge you have developed from Module 1, choose three students who you think may be gifted (even if they have not yet become talented achievers).

Print out or photocopy three copies of the Teacher Nomination Form and write the names of these three students on the top.

Complete the checklist for each student by highlighting the behaviours you have observed.

Share with the group, the names of the students you have identified, using the teacher nomination form.

- Are there any names recurring, among your group?
- Is a particular gender more represented in the negative behaviours column?
- Have you selected any students whom you had not considered gifted before you completed this Module?
- What do you think other teachers would say about the students you have identified?
Objective identification measures can be used to identify gifted and talented students’ aptitude and achievement. Objective measures are tools such as standardised tests of potential or performance. Objective measures give teachers and counsellors a score, or a series of scores, which can be used to compare the students with others from their age group or cohort. These measures usually assess a variety of elements of cognitive processing or achievement, eg verbal reasoning or reading comprehension.

Different objective measures give us specific information about a student’s ability to achieve well in the school context. The measure may show you either a student’s potential to achieve or his current level of achievement.

A variety of objective measures exist and each measure assesses different aspects of a student’s ability to learn.

It is important to note that it is quite possible for a student to score at a level lower than her ability. However, it is almost impossible to achieve beyond one’s true ability on any test, if it is administered in the manner prescribed.

This means that a student’s test result may be an underestimation of his ability. However, if a student scores higher than you expected, it is your expectation that is likely to be at fault rather than the test score!
**Psychometric assessment - IQ testing**

Currently, one of the most effective measures of a student’s potential to achieve academically in school is an independent psychometric assessment, commonly known as an IQ test (Assouline, 2003; Rogers, 2002). Such tests can only be administered by a registered psychologist such as your school counsellor or guidance officer, or a private registered psychologist. The most commonly used IQ tests are the **WISC-IV** or the **WISC-III** and the **Stanford-Binet-V**. These tests should be available to your school counsellor or guidance counsellor. This type of test gives information about the student’s ability to reason, compared with her age peers.

A high score on such a test shows that the student has the **potential** to achieve well at school. However, this does not guarantee that the student will be performing well in the school context. Remember Gagné’s environmental and personalogical catalysts that can block the translation of this student’s high **ability** - which is measured by the test - into high achievement.

IQ tests can be given to children from as young as three years of age - the Stanford-Binet-V has norms for children as young as two-and-a-half. However, testing a very young child usually results in a score that is an **under**estimation of the child’s ability. This is because a young child will often become fatigued during the testing process. The test results are less likely to underestimate a child’s ability if the test is done after the age of 5 or 6. The **optimum age range for testing is between 5 and 13 years**.

Some IQ tests are not as effective in identifying gifted students from some culturally diverse or significantly disadvantaged groups. Other identification tools are more effective with such students. (We will explain this further below and in Module 4 on Underachievement.)

The usefulness of IQ testing has sometimes been questioned by teachers who worry that IQ scores **label** children. However, the purpose of identification is not to **label** but to **diagnose** a student’s level of functioning and her consequent educational needs, so that these needs can then be addressed through the provision of appropriate curriculum and program options. IQ tests are very useful tools because they can, and often do, reveal hidden potential. They can also assess students’ **levels of giftedness**.

**Aptitude testing**

Aptitude tests measure a student’s potential to perform well at school. Most aptitude tests can be given to more than one student at a time. These tests are less expensive and less time consuming than individual IQ tests administered by a psychologist. Examples of such tests are the OLSAT, The Henman-Nelson and the Kaufman. These tests are often used for entry into ability grouped classes or schools. Aptitude tests give us a good understanding of a student’s reasoning potential, particularly in a verbal context, as the majority of these rely on good reading and comprehension skills.

Aptitude tests which are administered in a group format are less effective in identifying particular groups of students:

- students from disadvantaged backgrounds and/or culturally diverse groups,
- gifted students with English as their second language, and
- students with learning difficulties.
Low aptitude test scores from students in these populations should be treated with caution because the scores may not be a true indication of their ability.

**Standardised achievement tests**

Standardised achievement tests measure a student’s performance or current level of achievement. This is usually in a specific learning or subject area. These tests compare students with other students who are in the same stage or grade. Examples of such tests include any state literacy or numeracy test that has been normed across the state, such as ELLA or SNAP in NSW. Other examples of standardised tests include Maths Olympiad or UNSW competition papers, the Progressive Attainment Matrices (PAT Maths, PAT English), the Neale Analysis of Reading and the Test of Reading Comprehension (TORCH).

There are many excellent achievement tests available through companies such as the Australian Council for Educational Research (ACER), who may be able to assist you regarding the availability and purchase of such tests. Your school may already have some of these tests available for use.

Each standardised achievement test has been designed to identify a different aspect of a student’s learning. When choosing a standardised achievement test it is important to understand the specific purpose of the test. For example, the NEALE Analysis of Reading measures the specific aspects of reading fluency and comprehension. It does not assess a student’s ability to write lengthy responses to text or to empathise with the main character of a book.

Standardised achievement tests **only measure the performance level** of a student in a particular subject area. They will not identify a student’s potential to achieve in that area and thus, some **gifted underachievers may score poorly**.

**Teacher-made tests and assessments**

Teacher-made tests and assessments can be effective identification tools for talented students who are motivated and performing well. These assessment tools can be used to compare students against their current cohort. Educators regularly use such assessments to determine students’ current level of achievement. However, these tools often have a **low ceiling** and are unlikely to show the true level of ability of some gifted students, if the test is designed only to show mastery of basic skills.

In primary schools teacher-made tests are not used as often as in secondary schools. However any teacher-made assessment which has benchmarks can be considered a teacher-made assessment for identification.

Such tests will not identify gifted underachievers and may not identify talented students who are not engaged by the assessment process.
**Off-level testing**

Off-level testing is used to identify the extent of a student’s knowledge or skill in an area of giftedness or talent. The purpose of such testing/assessment is to identify if the student has knowledge and/or skills that you would expect of a student in a higher Year level. The information gathered from such assessments can help influence the curriculum delivery and programs in which a student participates.

In the primary years of schooling, assessments should be at least two years above the child’s current grade placement. For example, a student may be assessed in Year 6 using a Year 8 UNSW maths competition.

**Disadvantaged and culturally diverse populations**

Gifted children are found in all cultural groups and at every level in society. However, students who come from backgrounds other than that of the dominant culture may be more difficult to identify using standard identification procedures. This is because students who come from disadvantaged or culturally diverse backgrounds may not perform well on standard objective assessments. It is well documented that Indigenous Australians, students from low socio-economic status groups and some ethnic populations often do not perform well on standardised objective measures. For this reason, educators should be cautious when interpreting these results. This is discussed in greater depth in Module 4.

> If you believe the student is gifted, a guiding principle in using objective measures of identification is to believe the high scores but treat the average and low scores with caution.

The identification of gifted students from the populations noted above needs a flexible approach. Information needs to be gathered using a variety of tools which examine many facets of reasoning and expressions of giftedness. Such tools may include culture-fair standardised tests such as the Raven’s Standardised Progressive Matrices and the Goodenough-Harris Draw-a-Person Test. Other identification strategies which may be effective in such populations are authentic assessment, dynamic testing and identification through exposure to challenging teaching. Teachers need to be aware of the environmental and personal catalysts which may affect the expression of giftedness in these populations.

One way to identify underachievers from culturally diverse groups or disadvantaged populations is to use the emerging methodology of dynamic testing. This methodology represents a very promising alternative to traditional assessment in that it seeks to optimise the students’ cognitive performance, rather than simply measure it as it currently manifests itself.
**Consider the case of 9-year-old Zac**

Zac lives with his mother and three siblings. He lives in a housing commission home and goes to his local school. Zac’s mother has tried very hard to make sure that he is getting the best she can provide. However, his father does not contribute and Zac’s mother cannot afford very much.

Zac’s family do not read much and when he comes home he is usually told to ‘go and play with the other kids in the street’ so that his mother can organise the younger children’s dinner.

Zac performs at an average level compared with children in the rest of the state, according to the state-wide literacy and numeracy testing results. His teacher this year has done some training in gifted education and has recognised that Zac frequently draws very detailed pictures. He draws aerial view maps of the fantasy worlds he creates in pictures. Realising that Zac has advanced spatial abilities, his teacher is concerned that the state-wide testing may not reflect Zac’s true ability.

Using a non-verbal test, such as the Raven’s Standard Progressive Matrices or the Draw-a-Person test, might show Zac in a different light.

**Dynamic testing**

Dynamic testing seeks to optimise the student’s cognitive performance and begins where one-off assessments end. Dynamic testing usually follows a pre-test-intervention-posttest format where the intervention is designed to address factors that contribute to underachievement, for whatever is causing the underachievement in class will also be influencing any identification process. Students who perform well below their potential (ie underachieve) in the pre-test may improve considerably in the posttest if the intervention has been effective. Those who achieve to their potential at pre-test can improve only slightly.

**Consider the cases of Julia and Amelia**

Julia and Amelia both scored in the 45th percentile band in a dynamic assessment pre-test, a commonly used, relatively culture-fair measure of ability to learn. Following the intervention phase Julia scored in the 48th percentile band while Amelia had advanced to the 87th percentile band, strongly suggesting that Amelia’s pre-test score represented a substantial underachievement.

If the pre-test alone had been used to assess Amelia’s potential she would have been wrongly assumed to be an ‘average’ student and thus would have become an ‘invisible’ gifted underachiever.
The Raven’s Standard Progressive Matrices (RSPM) is a non-verbal test of a child’s underlying ability to learn. The RSPM is considered to be relatively culture-fair, mainly because it does not require any literacy or specific language skill and is free of culture-specific items. Consequently, the RSPM has been recommended by some as a suitable tool to identify children from culturally diverse backgrounds. However, recent research (Chaffey, Bailey & Vine, 2003; Lidz & Macrine, 2001) suggests that non-verbal assessment may be only marginally better than other assessment methods for some culturally diverse populations. The reason is simple: the factors contributing to underachievement for these students are many and complex, with language being only one.

So ... which objective and subjective measures should I choose?

As there are so many different types available, it is clearer to analyse these in a chart format.
## Chart summary of objective and subjective testing

<table>
<thead>
<tr>
<th>Identification measure/tool</th>
<th>What the tool measures</th>
<th>Advantages</th>
<th>Disadvantages</th>
<th>Identifies gifts or talents?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual IQ test</strong></td>
<td>Reasoning ability for school-based learning, compared to age peers</td>
<td>Individual administration means test anxiety can be alleviated</td>
<td>Does not measure creativity</td>
<td>Objective identification tool for giftedness</td>
</tr>
<tr>
<td>such as</td>
<td></td>
<td>Standardised</td>
<td>Less effective for some culturally diverse or disadvantaged groups, especially Indigenous groups</td>
<td></td>
</tr>
<tr>
<td>WISC-IV</td>
<td></td>
<td>Measures verbal and non-verbal reasoning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stanford Binet-V</td>
<td></td>
<td>No prior knowledge required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Group aptitude tests</strong></th>
<th>Assesses potential for school success</th>
<th>Less expensive than individual IQ tests</th>
<th>Does not allow for test anxiety</th>
<th>Objective identification tool for giftedness</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLSAT</td>
<td>Compared student with age peers</td>
<td>Measure verbal reasoning more accurately than non-verbal reasoning</td>
<td>Measures verbal reasoning more accurately than non-verbal reasoning</td>
<td></td>
</tr>
<tr>
<td>K-BIT</td>
<td>Standardised</td>
<td>Less effective for all culturally diverse students, especially Indigenous groups</td>
<td>Less effective for all culturally diverse students, especially Indigenous groups</td>
<td></td>
</tr>
<tr>
<td>Kaufman Assessment Battery for Children</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Ability tests-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woodcock-Johnson III Tests of Cognitive Abilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Intelligence tests teachers can administer</strong></th>
<th>Reasoning ability for school-type learning</th>
<th>Less expensive than individual IQ tests</th>
<th>Less comprehensive than an independent IQ assessment</th>
<th>Objective identification tool for giftedness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slosson Intelligence test</td>
<td>Compared student with age peers</td>
<td></td>
<td>Some have a low ceiling</td>
<td></td>
</tr>
<tr>
<td>Peabody Picture Vocabulary test</td>
<td>Standardised</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goodenough-Harris Draw-a-Person test</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>-----------------------------</td>
<td>------------------------</td>
<td>------------</td>
<td>---------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td><strong>Standardised achievement tests</strong></td>
<td>Tests school-based knowledge and skills</td>
<td>Identifies current level of achievement Tests learning gains</td>
<td>Does not measure giftedness/potential Less effective for some culturally diverse or disadvantaged children</td>
<td>Objective identification tool for identifying talented students in specific areas of achievement such as mathematics, reading, comprehension and science reasoning.</td>
</tr>
<tr>
<td>State wide literacy tests eg ELLA, SNAP, Basic Skills</td>
<td>Compares learning achievement with grade level peers</td>
<td>Compulsory</td>
<td>Low ceiling</td>
<td>As above</td>
</tr>
<tr>
<td>Kaufman Test of Educational Achievement (ACER)</td>
<td>Tests academic skill level in mathematics, reading, writing and oral language.</td>
<td>Standardised test that is easy to administer</td>
<td>Group test</td>
<td>As above</td>
</tr>
<tr>
<td>Progressive Achievement Tests-reading, mathematics (ACER)</td>
<td>Measures a student’s current level of achievement in maths or reading</td>
<td>Standardised Easy to administer</td>
<td>Low ceiling and multiple choice</td>
<td>As above</td>
</tr>
<tr>
<td>Woodcock-Johnson III Tests of Achievement</td>
<td>Provides information about a student’s academic strengths and weaknesses</td>
<td>Standardised</td>
<td>May not be relevant to Australia</td>
<td>As above</td>
</tr>
<tr>
<td>Identification measure/tool</td>
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<td>Advantages</td>
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<td>-----------------------------</td>
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<td>-----------------------------</td>
</tr>
<tr>
<td>Tests of Reading Comprehension-TORCH (ACER)</td>
<td>Identifies level of comprehension compared with a large normative sample</td>
<td>Standardised</td>
<td>Does not test ability, only level of reading Low ceiling</td>
<td>Objective identification tool for identifying talented students in specific areas of achievement such as mathematics, reading, comprehension and science reasoning.</td>
</tr>
<tr>
<td>Neale analysis of reading ability (ACER)</td>
<td>Identifies level of comprehension compared with a large normative sample</td>
<td>Standardised</td>
<td>Does not test potential</td>
<td>As above</td>
</tr>
<tr>
<td>Final year of school exams Competition papers eg UNSW Mathematics Competition</td>
<td>Tests knowledge and skills learnt in final years of school UNSW competition papers assess strengths and weaknesses</td>
<td>Large sample to compare students’ results Students who achieve high results are working above grade level</td>
<td>Costs to enter Multiple choice</td>
<td>As above</td>
</tr>
<tr>
<td>Teacher made tests/assessments</td>
<td>Identifies school-based learning attainment, knowledge and skills Identifies learning gain</td>
<td>Identifies learning gains and compares performance with academic cohort</td>
<td>Does not measure giftedness Low ceiling Does not identify all underachievers or students from some culturally diverse or disadvantaged backgrounds</td>
<td>Objective measure of academically talented students performing in the school context.</td>
</tr>
<tr>
<td>Identification measure/tool</td>
<td>What the tool measures</td>
<td>Advantages</td>
<td>Disadvantages</td>
<td>Identifies gifts or talents?</td>
</tr>
<tr>
<td>-----------------------------</td>
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</tbody>
</table>
| **Off-level/ Above-level tests** | Identifies knowledge and skills above current grade level | Lifts ceiling that may affect results on grade-appropriate tests  
May identify student performance above grade level  
May identify underachievers who perform better on challenging tasks | Culturally diverse students or students from disadvantaged backgrounds may not perform well or have the skills to achieve well on such tests | Objective identification tool for academically talented students |
| **Parent nomination** | Observed behaviours of the child from birth | May identify early milestones  
Provides anecdotal evidence  
Parent has observed child over the long term  
Provides a wider view of the child, beyond the school context | Not objective  
Parent may not have relevant information  
Parent may not be able to compare objectively | Subjective identification tool for identifying potential and/or performance |
| **Teacher nomination** | Observed behaviours of student in learning setting | Teacher sees student in different academic situations  
Teacher can compare student’s performance with that of others  
Teacher observes student in context other than the home | Teacher may make a judgement before using a checklist or identification support tool  
Teacher may disregard a student who displays largely negative characteristics | Subjective identification tool for identifying potential and/or performance |
How do we put all this together?

Here is a short case study. Consider what might be the recommended response to this scenario.

Thao is a quiet Year 3 child, who arrived from Vietnam 12 months ago. She spoke very little English when she arrived but only one year later Thao speaks English fluently and is achieving highly in maths. Thao’s written work is full of good ideas but her written expression still has syntactic errors.

What tools may be useful in identifying whether Thao is gifted?

Recommended answer for ‘putting it together’ case study

What tools may be useful in identifying whether Thao is gifted?

Thao’s teacher might use a Raven’s Progressive Matrices test as an objective tool as this is not a language-based assessment. This test helps identify Thao’s nonverbal reasoning level. Thao’s teacher has spoken to her parents and has asked that an interpreter assist Thao’s teacher to interview the parents, using the Sayler parent nomination form as a guide. The school administers a TORCH or Neale test to check reading comprehension levels and identify any gaps in understanding.

The identification process

Now that you have covered material on subjective and objective measures of identification, you may wonder where identification fits into the scheme of these Modules and the scheme of things in schools.

The following flow chart shows the direction that is taken in the process of identification.
1. **What is the purpose of identifying a gifted student?**
   
   (a) To compare them with other students.
   (b) To provide appropriate programs and curriculum for the students.
   (c) To give feedback to parents.
   (d) To label the child gifted and talented.

2. **When trying to identify gifted and talented students we should:**
   
   (a) Use one objective measure, as these tools are not influenced by personal opinion and bias.
   (b) Use one subjective measure, as teachers and parents are the best people to identify gifted and talented students.
   (c) Use multiple measures, comprising a combination of objective and subjective measures, according to the definition of giftedness and talent and the program.
   (d) Use one objective and one subjective measure as this will allow for balance in the identification process.

3. **Explain the difference between objective and subjective measures.**

4. **When would you use a subjective measure and when would you use an objective measure?**

5. **What might be the most effective identification process for the following students?**

   Read the two case studies and make recommendations for each of the given situations.

   Read the two case studies and make recommendations for each of the given situations. Compare your conclusions with those of other members of your group and analyse any differences.

Then read the modelled responses that we have provided. Note that these are not intended to be exhaustive; you may have thought of other constructive suggestions.
Mark is a disruptive Year 4 student, in a suburban primary school. He often calls out inappropriate comments and corrects his teacher in front of the class. He cannot ignore slight errors made by others and must always point out why they are wrong.

Mark does not seem to have many friends and often spends time in the playground reading or playing with younger children. Mark has a very strong general knowledge but does not seem interested in the tasks presented in class. His parents have approached the Principal, saying that they are not happy with the way the school is handling Mark. They believe that he is much more interested in learning outside school and that his talent is being wasted.

What tools might you suggest be used to identify whether Mark is gifted?

Sarah is a Year 5 student at an inner-city school. She lives with her mother and sister. Sarah writes beautiful narratives and poetry that contain sophisticated language and themes. She also loves art and music. Sarah does not do well in maths and prefers to avoid completing maths work, where possible.

Her mother has not been much involved with the school, so Sarah’s teacher has not been able to ascertain much about her home life. Recently Sarah has become less interested in her writing and seems to lack focus in class.

What processes might the teacher use to identify whether Sarah is gifted and to cater for her needs?

Peter comes from a very large family. His parents own a large farm and he and his siblings do a lot of work on the farm after school. Peter performs above the average in his Year 4 class but does not always complete his homework. He reads a lot and has discussed his love of reading with his teacher.

Recently his teacher entered the children in her class in the UNSW Maths, Science and English Competitions. Peter scored a High Distinction in Maths and Science and a Distinction in English.

What other tools might the teacher now use to identify whether Peter is gifted?
Julie is an Indigenous Year 3 student living in a small country town. She is a quiet student who is trying hard with her work. Julie’s teacher is Aboriginal and has a good rapport with Julie. The class has just completed the state’s literacy and numeracy tests, in which Julie performed in the average range.

Julie’s teacher has been working on a unit about family and community. Julie has been approaching her after class and asking many insightful, interesting questions about the differences between families and communities. Julie’s teacher has an inkling that there may be more to this student than she has previously seen.

What tools might Julie’s teacher use to identify whether Julie is gifted?
1. (b)
2. (c)

3. Subjective measures are judgements based on personal observations. Objective measures are those that produce comparable scores, e.g., from standardised tests, that indicate potential or performance relative to a large population of other students.

4. You should aim to use a combination of both subjective and objective measures in the identification process. Objective measures may confirm observations and judgements made when using subjective measures.

5. The following modelled responses have been provided for each case study.

What tools might you suggest be used to identify if Mark is gifted?
Mark’s Principal asks his parents to complete a Parent Nomination Form and asks Mark’s class teacher and other teachers who work with him to complete a Teacher Nomination Form. He is particularly interested to see if there are any observable patterns of negative behaviours. In consultation with Mark’s teacher it is suggested that the school counsellor conducts an assessment of Mark, using an IQ test, in order to rule out Attention Deficit Hyperactivity Disorder (ADHD), as well as look for giftedness. He also gives Mark a standardised reading comprehension tool such as the TORCH test.

What process might the teacher use to identify if Sarah is gifted and cater for her needs?
Sarah’s teacher requests that the district’s school counsellor speak with Sarah and gain permission to administer an IQ test. Achievement tests in maths and off-level tests in reading would be useful measures. A Teacher Nomination Form would highlight both the positive and negative behaviours that are evident.

What other tools might the teacher now use to identify whether Peter is gifted?
Peter’s teacher looks at his results in the state literacy tests and finds that he is in the top band for every test. She then assesses him using a standardised maths and English test. Off-level testing may also be required. She asks his parents to complete the Parent Nomination Form and completes the Teacher Nomination Form herself.
What tools might Julie’s teacher use to identify whether Julie is gifted?

Julie’s teacher has looked at her past levels of achievement and noted that there is nothing there to suggest that Julie is gifted. She calls Julie’s mother and invites her to the school. The mother is initially very reluctant to meet with the teacher until she is told that her daughter may be bright. She agrees to come in and Julie’s teacher interviews her, using the Parent Nomination Form as a guide. Her mother is very cooperative and leaves, pleased that the school will now organise dynamic testing for Julie.
Questions for Reflection

Using the knowledge gained in this Module on Identification, think about which identification tools would be most useful in identifying gifted and talented students in your school.

- What are the identification tools available to you, in your school? (If you are unsure, you may wish to investigate this further.)
- Which of these tools might be best suited to identifying the gifted students in your class(es)?

Using the knowledge gained in this Module on Identification, think about which identification tools would be most useful in identifying gifted and talented students in your school.

In your group, brainstorm and discuss which identification tools are available to you, in your school. Using butchers’ paper or a table, classify these identification tools into the two categories of objective and subjective measures.

Think about the students you teach. Which of these identification tools might be best suited to identifying the gifted students in your class(es)?

Divide into groups, such as by stage. Using the knowledge gained in this Module on Identification, think about which tools might support you in identifying gifted and talented students in your stage.

Using butchers’ paper or a table, classify these identification tools into the two categories of objective and subjective measures.

Each small group is encouraged to provide feedback to the rest of the staff, to create a whole school perspective on the identification tools available within the school.

After your small group or whole staff feedback session, use a table to collate the information presented by each stage.

Analyse the results and identify any areas of need, in either subjective or objective identification tools, or both.

Evaluate the identification tools required to support staff in the identification process. From this exercise, what identification tools do your staff have and what do they need?
Resources

References


Frasier, M. M. (1989). Poor culturally diverse students can be gifted, too! Educational Leadership, 46 (6).


Websites
http://www.hoagiesgifted.org/identification.htm
http://ericc.org/digests/e644.html
Psychological and Educational Assessment of Gifted Children

SUSAN G. ASSOULINE, The University of Iowa

An assessment is a data-gathering process designed to help answer questions and make decisions. Many assume that assessment and testing are synonymous; however, testing is but one of four components of an educational and/or psychological assessment. The four components are (a) standardized tests, (b) interviews, (c) structured or unstructured observations, and (d) informal procedures (Satir, 2001). As components of a comprehensive assessment, interviews, observations, and informal procedures will be briefly addressed, but the emphasis and purpose of this chapter is to highlight and confirm testing, and standardized testing in particular, as the primary component of an assessment of a gifted student.

It is important for the reader to know what I mean by “test.” The simple response is that a test is a sample of behavior. However, a more complex answer lies in the pages that follow.

Anastasi (1988) defined psychological tests as, “like other tests in science, insofar as observations are made on a small but carefully chosen sample of an individual’s behavior” (p. 24). She described the function of psychological tests as the “measure of differences between individuals or between the reactions of the same individual on different occasions” (p. 3). In other words, psychological tests measure individual differences in samples of behavior. The behaviors being measured may be sampled from broad domains, such as intelligence or personality.

Educational tests are also measures of samples of behavior, but, as defined by Anastasi, “have been specifically developed for use in educational contexts” (1988, p. 411). Because the distinction between psychological and educational tests is not always clear, the term psychological has come to mean that the information used will include results from psychological as well as educational tests.

Many adjectives have been placed in front of the word test. For example, authentic, criterion-referenced, standardized, or norm-referenced. Criterion-referenced tests differ in significant ways from norm-referenced or standardized tests. Criterion-referenced tests (e.g., spelling tests) are designed to yield information that suggests an individual’s degree of competency or mastery of a pre-established level of performance or criterion. Criterion-referenced tests are an example of the informal component of an assessment. The information from a criterion-referenced test can be helpful in determining curriculum.

An authentic assessment analyzes a student’s work. Authentic assessments are especially subjective in nature. Often, the student’s work, as well as the analysis of the work, is kept in a portfolio or folder, and sometimes an authentic assessment is called a portfolio assessment. Although the adjective authentic implies that this form of assessment is more valid than a standardized or norm-referenced test, that is not the case. Authentic assessments also represent the informal component of an assessment and can be rich with information about a learner.

Norm-referenced tests are developed so that a score can be compared to a representative group of individuals referred to as a normative sample. In order for the comparison to be valid, a norm-referenced test must be administered under the same (i.e., standardized) conditions for everybody. In this chapter, the terms norm-referenced and standardized are used interchangeably. Both large-group administered tests of achievement, such as the Iowa Tests of Basic Skills (ITBS), and individually administered intelligence tests are examples of norm-referenced or standardized tests.

Norm-referenced or standardized tests are periodically criticized. Wiggins (1993), for example, criticizes testing with the assertion that:

Students are tested not on the way they use, extend, or criticize “knowledge” but on their ability to generate a superficially correct response on cue. They are allowed one attempt at a test that they know nothing about until they begin taking it. For their efforts, they receive—and are judged by—a single numerical score that tells them little about their current level of progress and gives them no help in improving (p. 2).

Similar attacks are found in a variety of publications, including professional educational publications such as Phi Delta Kappan. For example, in the September 2001 issue, Wasserman laments that both the practice of standardized testing as well as criticisms of standardized testing have remained consistent throughout the latter half of the twentieth century, and argues that we should be suspicious of the motives of those advocating standardized testing. Wasserman asserts that educators should omit testing from the assessment process and revert to, “the use of informal, evaluative observations by teachers,” even though these observations may be “flawed . . . subjective . . . and it’s true that teachers’ judgments about students’ performance could be wrong, misguided, or biased” (p. 36).

In this chapter, I propose that the responsible educator should ignore Wiggins’ and Wasserman’s advice and (a) recognize that standardized tests can be extremely useful in understanding the learning needs of a gifted student, and (b) advocate for the synthesis of information from standardized tests as well as informal assessment procedures to develop programs for gifted students.

The first part of this chapter provides the reader with an appreciation of standardized testing through the presentation of a brief history of norm-referenced testing, theories of intelligence, and giftedness. The second part presents two case studies and discusses testing issues as they relate to the field of gifted education. The case studies demonstrate clearly the value of information from standardized testing for making programming and placement decisions about gifted students. The chapter concludes with a list of “consumer guidelines” that summarize important issues when assessing gifted children.

How Has the History of Testing Influenced Today’s Practices in Gifted Education?

In 1869 Sir Francis Galton published Hereditary Genius, which established the link between the terms intelligence and genius. Lewis Terman published in 1916 the U.S. version of Binet and Simon’s individual intelligence test. Terman called his version of Binet and Simon’s test the Stanford-Binet Intelligence Scale and, in 1922, used this scale to launch a study of 1,328 gifted children. The results of Terman’s study were published in a series entitled The Genetic Studies of Genius, the first volume of which was published in 1925 (Terman, 1925). In Terman’s work, we see the shift in terminology from genius to gifted (Feldhusen & Jarwan, 1993). Also, through Terman’s work, we see the forging of the strong link between intelligence testing and gifted.

Terman’s extensive longitudinal studies established the foundation for identifying gifted students on the basis of intellectual potential as measured by individualized intelligence tests. However, Terman was sensitive to the limitations of measuring “intelligenc,” and early in the days of developing the Stanford-Binet Terman cautioned test users:

We must guard against defining intelligence solely in terms of ability to pass the tests of a given intelligence scale. It should go without saying that no existing scale is capable of adequately measuring the ability to deal with all possible kinds of material on all intelligence levels. (Terman, 1925, p. 131)

Terman’s precautionary statements were prescient to the theoretical work dominating the last quarter of the 20th century. During the twentieth century, the conceptualization of intelligence evolved from a single point of view (i.e., Terman’s Stanford-Binet) into a complex perspective with several different orientations, three of which are described below: psychometric, cognitive modifiability, and information processing. Each orientation has influenced educational practice at the same time, educational practice has influenced our views about the usefulness of intelligence tests.

The oldest and most research-based tradition of measuring intelligence is the psychometric approach (McGrew & Flanagan, 1998). Psychometrics is defined as the quantitative measure of psychological traits or attributes (Satir, 2001). The psychometric
approach has resulted in thousands of tests; according to the 1999 edition of *Tests in Print*, there were 2,099 commercially available tests (p. 152). Measurement of processing components by these new breed of instruments relies on psychometric procedures and principles.

Sattler (2001) provides a fascinating timeline that reviews the historical markers in cognitive and educational assessment. The timeline presented in Table 10.1 includes important dates and notes about the evolution of theories of intelligence testing as they relate to gifted education. Much of the information in Table 10.1 draws heavily from Sattler and McGrew and Flanagan (1998).

What Types of Educational Decisions Are Conductive to Assessment?

The purpose of an assessment is to gather information relevant to making a decision. In gifted education, decisions about students usually involve (a) placement into a program and/or level and (b) type of curriculum to use within the program. Until recently, the primary reason for assessing an academically talented child was to make a decision regarding placement. For gifted children, this multilaterality has led to the measure of general intellectual ability (IQ).

Group intelligence tests are often used as a way of initially screening for students of high academic ability, but beyond that their uses with individual students are limited. Two tests widely used are the Otis-Lennon School Ability Test (OLSAT) and the newly revised Cognitive Abilities Test (CogAT). Both tests were concurrently normed with a group-administered achievement battery. The OLSAT yields a verbal score, a numerical score, and a total score, and the CogAT yields a score measuring reasoning in three domains—verbal, quantitative, and spatial. Both tests are scored with normative scores that are compared to others of similar age. The Stanford-Binet and the Wechsler scales are the most widely used intelligence measures in the United States.

Table 10.1  Twentieth Century Timeline of Cognitive and Educational Assessment

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1904</td>
<td>Spearman introduced the concept of a two-factor theory of intelligence—a general factor (g) of intelligence and one or more specific factors (s). Spearman's emphasis on intelligence—mental ability—as a unitary trait.</td>
</tr>
<tr>
<td>1912</td>
<td>Alfred Binet and Theodore Simon developed a 36-item test intended to measure judgment, comprehension, and reasoning for school-aged children (based on testing that began in the early 1900s). This effort resulted in the Stanford-Binet Scale.</td>
</tr>
<tr>
<td>1916</td>
<td>Stanford University Professor Lewis Terman published an extended standardized form of the Binet-Simon Scale, renamed the Stanford-Binet Scale. Terman's efforts laid the foundation for future applications of the psychometric theory of intelligence testing to measurement. This scale and its subsequent revisions represent the classic application of Spearman's theory of intelligence to measurement.</td>
</tr>
<tr>
<td>1937</td>
<td>The Iowa Preschool Tests of Basic Skills (later renamed the Iowa Tests of Basic Skills) were developed by E. F. Lindquist and his colleagues at the University of Iowa. The ITBS represents a large-scale achievement testing program that uses scores from tests like the ITBS to identify students for programs.</td>
</tr>
<tr>
<td>1951</td>
<td>The 1951 version of the Binet-Simon Scale was revised by Lewis Terman and his colleague Maude Merrill and renamed the Stanford-Binet Intelligence Scale.</td>
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<tr>
<td>1959</td>
<td>Louis Thurstone introduced a multiple-intelligence theory. In direct contrast to Spearman's G factor theory, the resulting test, the Primary Mental Abilities Tests, portrayed intelligence as equally weighted multiplicity abilities, including, verbal, numerical, and spatial ability.</td>
</tr>
<tr>
<td>1960</td>
<td>David Wechsler published the Wechsler-Bellevue Intelligence Scale. Revisions of this scale, as the Wechsler Adult Intelligence Scale (WAIS) were published in 1955, 1961, and 1977. (Note: In 1941 David Wechsler was introduced to the measurement of intelligence through his experience as a U.S. Army private in the Army's large-scale testing program.)</td>
</tr>
<tr>
<td>1969</td>
<td>The Wechsler Intelligence Scale for Children (WISC) designed for children ages 6 to 16, was published. The Wechsler tests use a point-scale format. The underlying assumption of a point-scale format is that items are designed to measure specific functions or behaviors at any age. In 1967 the Wechsler Preschool and Primary Scale of Intelligence (WPPSI) designed for children ages 3 to 7 was published, a revision of the WPPSI. The WISC, published in 1974, was revised and renamed the WISC-R and in 1991 the WISC-III was revised and renamed the WISC IV.</td>
</tr>
<tr>
<td>1972</td>
<td>Wechsler considered IQ defined as the ratio of mental age to chronological age, an unreliable, especially for adults. He developed the notion of a deviation IQ in which the examinee's score is compared with scores carried by other individuals of the examinee's age.</td>
</tr>
<tr>
<td>1975</td>
<td>The best items from the two 1957 forms of the Stanford-Binet Intelligence Scale were selected and combined into one new form, the Stanford-Binet Intelligence Scale (1975). IQs were determined by Lewis Terman and Al. For Maude Merrill, Terman's colleague, and collaborator (the Stanford Binet). New norms for the 1960 form were published in 1972. For the next 25 years, the Stanford-Binet (Form LM) was regarded as an extremely reliable and valid instrument for use in predicting academic success. It was designed to be used with individuals as young as two years of age through adult.</td>
</tr>
<tr>
<td>1975</td>
<td>Consejo del Secretario de Educación Sídney Martland to generate a report on the Education of Gifted and Talented (published in 1972 and commonly called the Martland Report). From this report, a national definition of giftedness was created and an umbrella term was generated (see Table 10.2). This was written to be used in many states, and given its nature seems to ensure that standardized tests—especially tests of intelligence—will continue to play a role in the identification of gifted students.</td>
</tr>
<tr>
<td>1975</td>
<td>Professor Julian C. Stanley initiated the Talent Search. Although the Talent Search only tested a few hundred students in the early 1970s, by the beginning of the twenty first century, hundreds of thousands of students are participating annually in the Talent Search.</td>
</tr>
<tr>
<td>1975</td>
<td>The U.S. PL 94-142, protecting the right to equality education for all handicapped children, was passed. In 1990 this law was updated and renamed the Individuals with Disabilities Education Act—IDEA. Under this legislation the U.S. PL 94-142 was a watershed in education, educators, and parents are more aware of assessment and specific needs, as well as the requirement to accommodate students with special needs.</td>
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<tr>
<td>1983</td>
<td>Howard Gardner proposed a Theory of Multiple Intelligences. Gardner's theory resulted in a variety of instruction strategies and assessment, however, no standardized test exists to measure the multiple intelligences.</td>
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</table>
| 1985  | Robert Sternberg introduced a Triarchic Theory of Intelligence. Sternberg's theory, like Gardner's, is also in contrast to a single, unitary view of intelligence. McGrew and Flanagan (1998) stated that Sternberg's theory has not held up well when judged against established validity.
The Stanford-Binet Intelligence Scale: Fourth Edition (SB-IV) was developed by R. L. Thorndike, E. Hagen, and J. Sattler. The SB-IV introduced users to a factor structure, which included general intelligence factor, several general memory factors, and several specific factors such as verbal, quantitative, and abstract reasoning factors.

Note: Silverman and Kameyama (1992) made a strong case for continuing to use the Stanford-Binet Intelligence Scale (L-M) with extraordinarily able students because it is more effective at differentiating exceptionally gifted from moderately gifted children. However, Robinson (1992) countered Silverman and Kameyama with two important points. First, the norms of the SB-IV are superior when compared to the 1972 norms of the Stanford-Binet (L-M). In fact, with the publication of this chapter we are now over fifteen years beyond the 1972 norms of the SB-IV. When the Stanford-Binet is published (scheduled for release after 2033), the availability of the current norms will increase our ability to serve these students. Second, the use of test scores alone is not an adequate test of general school ability, and should include measures of achievement as well as the other components of an assessment interview, including unstructured observations and informal procedures. 

In sum: the assessment should go beyond placement and should provide information that can assist in educational programming decisions. The application of assessment information for both placement and programming is demonstrated in two case studies (see Figures 10.1 and 10.2).

Two Case Studies

The two separate cases in Figures 10.1 and 10.2 demonstrate the usefulness of tests as part of the assessment process for gifted placement and programming. Figure 10.1 is a report of an assessment of Fred, an extremely able student. At the time of the report, Fred was placed in first grade in accordance with his age. However, as noted throughout the report, the first grade curriculum was so underwhelming that Fred was very frustrated. His parents requested that he be placed in second grade. Parents and school officials were much intractable to this suggestion and were ready to go to court to change the placement ruling.

Throughout the report, there is a School Psychologist's Perspective of the Assessment (SPPA), which details the motivation for which tests were selected as well as the interpretation of the results. The purpose of reproducing the assessment report and the SPA is to not recommend specific tests, but demonstrate how the tests were used for this particular student.

For Fred, both the immediate and the long-term indicators of success were extremely positive. Six months after the report, the psychological assessment indicated that Fred was far ahead of his grade level. The unanimous conclusion was that the placement and the program were tremendously successful. The school personnel gained a new appreciation of Fred's ability and achievement, and the discussions about Fred opened up new opportunities for other gifted students.

Fred entered Purdue University at the age of eleven. He graduated from Purdue with a Doctor of Pharmacy degree at the age of 17, and enrolled in a Ph.D. program at Rockefeller University in New York.

Fred's case was litigious for two reasons: (a) he was extremely capable, and (b) there was a great deal of defensive reluctance by the educators because the results were incongruent with his informal observations. Cases like Fred's do not have to be controversial if educators and psychologists use the information from tests of ability, aptitude, and achievement to make decisions about placement and programming. Fred's assessment occurred prior to the development of the Iowa Acceleration Scale (IAS), which is discussed below and sections of which are presented in Figure 10.2.

However, a discussion similar to that presented by the process of using the IAS occurred with Fred, and it was that group discussion, based on assessment data, that fostered an appropriate placement and program for this extraordinary gifted student.

An essential component to Fred's assessment was the professional administration and interpretation of the tests within the context of the information that had been gathered informally. An appreciation for the special programming needs of academically able students also was crucial. Additionally, it was important to convey this information to parents and educators in a way that would serve the child.

What Is the Role of Assessment in Whole-Grade Acceleration Decisions?

Despite the unequivocal evidence (DeHaan & Havigur, 1961; Gallagher, 1986; Kulik & Kulik, 1984) supporting whole-grade acceleration as a programming option for gifted students, acceleration— or grade-skipping—remains a contentious issue. Prior to the publication of guidelines for grade advancement (Feldhusen, Proctor, & Black, 1980), most decisions concerning grade acceleration were based upon the selective biases of a school administrator. In some instances, accelerated classroom placement was precluded by a district's express policy against acceleration. Feldhusen et al. article was helpful to many gifted educators and parents of gifted students who found themselves in the role of advocate for acceleration without the tools to advocate effectively.

Table 10.2 1972 and 1993 Federal Definitions of Gifted and Talented

Part A: 1972 Maternal Definition (Public Law 91-230, section 806)

Gifted and talented children are those identified by professionally qualified persons, who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and/or services because they are not normally provided by the regular school program in order to realize their contribution to self and society.

Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:

1. General intellectual ability
2. Specific academic aptitude
3. Creative or productive thinking
4. Leadership ability
5. Visual and performing arts
6. Psychomotor ability

It can be assumed that utilization of these criteria for identification of the gifted and talented will encompass a minimum of 3 to 5% of the school population.

Part B: 1993 National Excellence Report Definition (Based upon the Federal Javits Gifted and Talented Education Act)

Children and youth with outstanding talent perform or who show the potential for performing at remarkably high levels of accomplishment when compared with others of their age, experience, or environment.

These children and youth exhibit high performance capability in intellectual, creative, and/or artistic areas, possess an unusual leadership capacity, or excel in specific academic fields. They require services or activities not ordinarily provided by the schools.

Outstanding talents are present in children and youth from all cultural groups, across all economic strata, and in all areas of human endeavor.

*This was later removed.*
The Conneen Bein & Jacqueline N. Blank Internationa! Center for Gifted Education and Talent Development

STUDENT: Fred D.
BIRTHDATE: April 11
AGE: 6 years, 7 months
REPORT DATE: December 1
EVALUATION DATE: November 12-14
SCHOOL PSYCHOLOGIST: Susan G. Assouline, Ed.S., Ph.D.

Reason for Referral:
The superintendent of schools recommended that Dr. D. refer his son, Fred, to the Bein-Blank Center for an evaluation of Fred's academic achievement and for recommendations based upon that evaluation. At the time of the referral, Fred had been withdrawn from first grade in the local public school and was home-schooled.

Background Information and Observations:
Fred had been evaluated previously at the age of 5 years, 2 months, and 6 years, 5 months. Each of these evaluations included the administration of an individual intelligence test (Stanford-Binet: Fourth Edition and the Wechsler Intelligence Scale for Children—Revised), and each evaluation resulted in confirmation of Fred's superior intellectual ability. The academic achievement tests administered during the previous evaluations were designed to provide a general indication of Fred's achievement in reading, mathematics, and spelling. The tests administered at the age of 6 years, 1 month were the Wide Range Achievement Test—Revised (WRAT-R) and the Basic Achievement Skills Individual Screen: On these screening instruments, Fred performed at the seventh-grade level for reading, math, and spelling. The two prior assessments resulted in two reports, and the primary recommendation from each of those reports was that consideration be given to Fred's program of study to determine the best way in which to meet his needs for academic stimulation and appropriate socialization with his schoolmates.

Reports from the previous evaluations indicated that Fred had excellent concentration and attention, and my observations of Fred's ability to concentrate and attend to tasks verified the previously reported observations.

School Psychologist's Perspective of the Assessment

(SPPA): A good assessment begins with a question to be answered. There are two questions concerning this student: (1) What is the appropriate grade placement? (2) What is the appropriate academic program?

(SPPA): Two individual administrations of an intelligence test had been administered within a sixteen-month period, and each had yielded similar results. At the time of this assessment, these were the most current results available. There was no need for a third administration of an intelligence test.

However, the information from the previous administrations of measures of achievement was insufficient. The measures used were designed for screening; the information from them was inappropriate for a placement or a program decision. This is obvious in the vague recommendations that were presented with the results of these previous assessments.

The statement concerning Fred's ability to concentrate is an example of nontest data that was part of the assessment. This observation is used in the recommendations.

Fred is right-handed and has worn corrective lenses for four months.

Interpretation of Results:
Tests Used
Raven's Progressive Matrices (RPM)
Stanford Diagnostic Reading Test (Green Level, Form A)
Standard Reading Inventory (SRI)
Stanford Diagnostic Mathematics Test (Green Level, Form A)
Sequential Tests of Educational Progress (STEP): Basic Concepts and Computation

One of the goals of the present evaluation was to determine Fred's academic progress relative to his ability. Fred was asked to complete the Raven's Progressive Matrices (RPM), an untimed nonverbal test of figural reasoning. For this test, the individual is presented with 60 meaningless figures and is asked to discern the nature of the pattern for each figure and complete the relations. Fred correctly completed 41 out of 60 figures in 35 minutes and earned a score surpassing 99% of the 8-year-olds in the normative sample (the highest raw score earned by the 6-year-olds in the normative sample was 34). Thus, compared to the highest score earned by his age-mates in the normative sample, he was able to answer correctly 7 more items than the top-scoring individuals. This is a significant discrepancy from the highest score earned by his age-mates and confirms that Fred's ability to form comparisons, reason by analogy, and organize spatial perceptions and systematically related wholes, as measured by this well-standardized instrument, is superior—when compared to children two years older than he.

During an interview with Fred's father, Dr. D., he described Fred's routine at home. The family chose not to have a television in their home, and evenings were devoted to study and exploration of world events. It was obvious that Fred had been presented with considerable factual knowledge; however, all evidence indicated that he was ready not only for the exposure to this knowledge, but to process the information with reasoning skills that surpass those of bright students in higher grades. The results of the RPM support this observation.

Superior ability to process information and to attend to learning tasks in rare and requires careful tailor-
ing of an individualized educational plan that will provide an optimal match between Fred's ability and achievement. The two previous psychological reports included a screening of spelling, reading, and mathematics. The present assessment of reading and mathematics was more diagnostic in nature.

Reading: The Green Level (Form A) of the Stanford Diagnostic Reading Test was administered. The Green Level is designed for students in grades 3, 4, and 5 and provides comparative scores for a sample of students in those grades. Fred worked quickly through the sub-tests. The final passages were to be read silently, but Fred subvocalized each of those passages, even though he worked quickly, he was not impulsive in his responses and he rechecked his answers to the questions.

When compared to fourth graders, Fred earned the percentile rankings reported below. Grade equivalent scores represent the typical performance of students in a specified grade. Because Fred is not a typical student, grade equivalents are not generally good comparative indicators; however, for our purpose of determining where to begin instruction, it was appropriate.

<table>
<thead>
<tr>
<th>Stanford Diagnostic Reading</th>
<th>Percentile Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade Level (Form A)</td>
<td>(Compared to fourth graders)</td>
</tr>
<tr>
<td>Auditory discrimination</td>
<td>92 7.3</td>
</tr>
<tr>
<td>Phonetic analysis</td>
<td>95 11</td>
</tr>
<tr>
<td>Structural analysis</td>
<td>83 6.8</td>
</tr>
<tr>
<td>Auditory analysis</td>
<td>51 3.9</td>
</tr>
<tr>
<td>Literal comprehension</td>
<td>74 4.7</td>
</tr>
<tr>
<td>Inferential comprehension</td>
<td>43 3.7</td>
</tr>
</tbody>
</table>

The "lowest" grade equivalent score (earned for inferential comprehension) was two grade levels above his present placement. The highest (earned for phonetic analysis) was beyond grade 12. Relatively speaking, Fred's auditory vocabulary, literal comprehension, and inferential comprehension, as measured by these subtests of the Stanford Diagnostic Reading Test, are not as well developed as his ability to discriminate auditory sounds, analyze the relationships between sounds and letters (phonetic analysis), and decode words through the analysis of word parts (structural analysis). In other words, the skills measured by the more cognitively less demanding tasks of recognizing words and decoding them are more advanced than his understanding of common words and his general reading comprehension, especially his inferential comprehension.

The Standard Reading Inventory (SRI) was also administered, and the hypothesis that Fred's decoding skills were more developed than his comprehension skills was confirmed by the results of the SRI. He orally read the fourth- and fifth-grade passages with only a few minor pronunciation errors. It was noted that he read in a monotone. We did not go beyond the fourth- and fifth-grade passages, but he could probably read passages at a much higher grade level. However, it is unlikely that he could comprehend passages at the junior high grade levels. His silent reading speed was at the instructional level for grade 4, but not for grade 5.

Instructionally, Fred reached frustration (correctly answered four out of ten comprehension questions for both silent and oral reading) at the fourth grade level. He correctly answered four of the ten comprehension questions for the fifth-grade oral reading passage, but he answered only two of the ten comprehension questions correctly for the fifth-grade silent reading passage. He subvocalized while he was reading this passage.

Coupled with the information from the Stanford Diagnostic Reading Test, it appears that providing material at an advanced third- or fourth-grade level would be instructionally appropriate. Fred's ability to decode written words will continue to be far superior to his ability to comprehend for several more years. Fred could probably read a sixth- or seventh-grade social studies text, but his thinking is not yet sophisticated enough to comprehend the material fully and draw inferences. He needs time to allow underlying cognitive functions necessary for comprehension to develop and mature.

Reading: Fred needs only limited instruction in decoding or phonics. It is recommended that an instructional program emphasize the development of his comprehension skills. His overall comprehension is at an advanced third-grade or beginning fourth-grade level, and instruction with materials at SSPA. Since reading is one of the most important elementary school activities, a careful assessment of Fred's reading skills was critical. Additionally, this case almost went to court because the initial screening information suggested a "reading level of seventh grade," and the parents used that information to advocate that Fred be placed in grade 7. School personnel resisted strongly against this and wanted to keep Fred in grade 4.

The distinction between Fred's decoding skills and his comprehension skills was important because it begins to explain why parents and educators had seemingly incompatible understanding of common words and his general reading comprehension, especially his inferential comprehension.
The Basic Concepts test designed for grades 6-9 was too difficult, as evidenced by his performance: Fred required all 40 minutes to answer 24 of the 50 questions; and he correctly answered only 14 questions, which placed him at the 8th percentile when compared to ninth graders. It was decided not to give him the middle schooljunior high level of the Computation test. There was concern that he would be unnecessarily frustrated.

Therefore, the lower level of the STEP Basic Concepts and Computation tests, which were designed for grades 3-5, was administered. On this level of the Basic Concepts test, Fred correctly answered 38 out of 50 items in 35 minutes. When compared to second-semester fifth graders, this score is at the 83rd percentile. Eight of the 12 missed items required manipulation of number concepts. On the Computation subtest, Fred correctly answered 53 out of 60 items in 28 minutes. This score is at the 90th percentile when compared to second-semester fifth graders.

Recommendations for Mathematics: The fact that Fred did so well on both of the tests designed for third through fifth graders indicates that he has relatively few, if any, gaps in his mathematics knowledge base. The biggest concern is that he not rush too quickly into pre-algebra and algebra because he needs time to allow for the development of the necessary cognitive structures that will foster success in more abstract mathematics such as algebra and geometry. Unlike many extremely precocious students, Fred has not developed sloppy habits. He did not do all of his work in his head; rather, he was careful to work out the problems on scratch paper. However, if he remains unchallenged, he will most likely develop poor work habits because performing computations mentally will be one of the only ways that he can mentally challenge himself.

Summary and General Recommendations:
Given Fred's superior performance on the two previously administered individual intelligence tests, as well as his superior performance on the RPM, one would predict that his academic achievement would be at least two grade levels above that of his age- or grade-mates. Indeed, Fred has fully utilized his superior academic ability and has achieved at a level commensurate with that ability. Fred has excellent concentration and attending skills and could easily these levels would probably provide sufficient challenge. To continue developing his comprehension skills, Fred needs: (1) time for the underlying cognitive processes to mature, and (2) the opportunity to interact with students who are at a similar level of comprehension. These students will likely be found in higher grades. If Fred is accelerated into third or fourth grade, it would be appropriate to place him with the most advanced reading group.

Although his reading comprehension skills are relatively not as superior as his skills at decoding words, they are still superior when compared to those of his age- or grade-mates. The fact that his ability to comprehend ranges from two to four grade levels above his age-mates means he will need special arrangements for reading instruction. A whole-language approach to reading and writing instruction might foster Fred's progress in each of these areas. However, it would be important not to use a grade-level basal for whole-language instruction. Rather, Fred will need exposure to literature such as that provided by the Great Books Series.

Mathematics: Mathematics was the other curricular area for which programming recommendations were needed. Three mathematics tests were administered before finding one that was appropriately difficult. The Green Level (Form A) of the Stanford Diagnostic Mathematics Test was the first test administered. The green level was developed for students in grades 4, 5, or 6. Fred finished the whole test in less than an hour (95 minutes is allowed). When compared to fifth graders, he earned the following percentiles for the three sub-tests:

<table>
<thead>
<tr>
<th>Stanford Diagnostic Mathematics Test Subtest</th>
<th>Percentile Rank Compared to Fifth Grader</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number system and numeration</td>
<td>86</td>
</tr>
<tr>
<td>Computation</td>
<td>85</td>
</tr>
<tr>
<td>Applications</td>
<td>94</td>
</tr>
</tbody>
</table>

The Stanford Diagnostic Mathematics Test did not appear to be sensitive enough to prescribe specific instruction. Therefore, the Basic Concepts and Computation tests of the Sequential Tests of Educational Progress (STEP) were administered.
The more routine school tasks (i.e., decoding of words and basic mathematics computation) are about as fully developed as can be expected for a 6 1/2-year-old child, and his ability to concentrate and attend has been well honed. Fred is at a critical point in his academic development. He will not lose his ability to learn, but if he is not sufficiently challenged, he may lose his love for learning and will likely develop poor study habits.

- With regard to his general reading comprehension, placing him in an advanced third-, fourth-, or fifth-grade class seems most appropriate.
- Because his reading and math comprehension skills seem to be equally developed, it would make sense to consider whole-grade rather than subject-matter acceleration. For subjects such as science and social studies, Fred is probably ready to begin receiving instruction at a third-, fourth-, or even fifth-grade level. Pre-testing in these subject areas would be appropriate.

The school system is fortunate that Fred's parents are able and willing to fill in any gaps in Fred's instruction that might occur as a result of accelerating Fred by two or more grades. When students who have superb ability to learn are tutored at home, it is sometimes believed that the parents' opinion is suspect because parents have invested so much in their child's education. My sense is that Dr. D has tapped into his son's strengths and has helped his son realize those strengths. Fred took the tests at the Belin-Blank Center by himself and demonstrated extremely mature behavior. His behavior was more similar to that of a mature, extremely intelligent eight- or nine-year-old. His demeanor is that of a well-behaved upper elementary student.

Fred has achieved through home schooling provided by his parents, but he needs the opportunity to interact with peers. He also needs exposure to extracurricular activities and contests, such as spelling bees, the Mathematical Olympiad for Elementary Students, and science projects that are typically assigned in the upper elementary grades. It determines an appropriate placement for Fred, attention should be paid to the most academically comfortable setting, that is, third, fourth, or fifth grade, as well as the most emotionally comfortable setting. The receiving teacher(s), parents, and administrators should discuss the most appropriate setting.

An understanding teacher who can adequately prepare his or her class to welcome a new student (who is younger, yet equally or more able), and who can communicate effectively with the parents is most important.

- I have recommended that Dr. and Mrs. D continue to provide enriching educational experiences for their son. However, it was suggested that these experiences might focus on opportunities that are not traditionally offered in the public school. For example, Fred would probably do well if exposed to one or two foreign languages, as well as a musical instrument. Activities in sports and social groups such as Cub Scouts are also to be encouraged. When he is old enough (probably around age 11 or 12), Fred would probably benefit from summer academic programs offered by universities such as the University of Iowa.
- Follow-up every three or four months with the Belin-Blank Center Staff, to be initiated by Dr. and Mrs. D. is strongly recommended.

Figure 10.1 Psychological Interpretive Report

Southern and Jones (1991) and Passow (1993) raised the debate about the advantages of acceleration forward. In 1993, Assouline, Congleton, and Lukowski published the Iowa Acceleration Scale (IAS), a guidance tool designed to facilitate discussions and decisions about acceleration. In 1999, the manual for the Iowa Acceleration Scale (IAS) was published. The Iowa Acceleration Scale (IAS) and the accompanying manual were developed to guide educators in making recommendations about accelerating a student. Because no single definition exists as to what qualifies a student for whole-grade acceleration, one goal of the IAS is to provide exclusionary and inclusionary indicators of the appropriateness of acceleration as an educational option for students in kindergarten through eighth grade.

The indicators of the IAS include school-related issues, such as class attendance and the student's attitude toward learning; developmental factors, such as body size and fine and gross motor coordination; interpersonal skills, which assess how effectively a student interacts with others; and attitude and support of the principal individuals involved in the student's academic life. These issues represent the informal components of the IAS.

The IAS also requires information from tests of academic achievement and ability. With respect to academic ability, a formal measure of intelligence is one of the critical factors underlying acceleration decisions using the IAS. Both group-administered and individually administered test scores can be used. A score representing superior intelligence is required before other indicators on the IAS can even be
Figure 10.2 The Iowa Acceleration Scale.

**IAS Example: Jenny**
The Iowa Acceleration Scale Form*

**Section I: General Information**

**Part A: Student Information**

- **Student Name**: Jenny
- **Student Address**: 1234 Small Road, Mid-Sized Town, Midwestern State 12345
- **Student Phone Number**: 123-4567
- **Gender**: Female
- **Present School**: Presidential Elementary
- **Present Grade**: 3rd
- **Proposed Grade**: 5th
- **School Address**: 5678 Main Street, Mid-Sized Town, Midwestern State 12345

**Date of IAS Completion (Today's Date)**: 12/3

**Student's Date of Birth**: 3/12

**Student's Chronological Age**: 8/8/19

**Part B: Family Information**

- **Father**: Steve
- **Occupation**: Banker
- **Does parent live with child?**: Yes
- **Mother**: Cindy
- **Occupation**: Teacher
- **Does parent live with child?**: Yes

**Names of Siblings**:

- **Gender**: Male
- **Age**: 8
- **School Grade Name of School**: Junior High

**Part C: Child Study Team Information**

- **Names/Position of Individuals Participating in Acceleration/Decision/Planning**:
  - **Principal**: Mrs. S.
  - **Parent (Guardian)**: Steve & Cindy
  - **Present Teacher**: Mrs. P.
  - **Receiving Teacher**: Mrs. R.
  - **Other (e.g., Gifted Ed. Coordinator, School Counselor, School Psychologist)**: Mrs. E. (G/T Coordinator)

*Sections of the Iowa Acceleration Scale (IAS) have been reprinted with permission of Great Potential Press (formerly Gifted Psychology Press). This publication, or parts thereof, may not be reproduced in any form without written permission of Great Potential Press.

**Name of Person Completing this Form**: Mrs. E.

**Position**: G/T Coordinator

**Who initiated the consideration of acceleration?**

- **Student**: X (see attached letter)
- **Parents**: ___
- **Educator**: (Please indicate name: ___ and position: ___)

(Sections II through V have been omitted from this figure. See the IAS manual for a detailed description of these Sections.)

**Section VI: Academic Ability and Achievement**

**Part A: Ability Test Results**

**NOTE**: although an IQ score is not a perfect measure of ability, research has shown that individualized intelligence test scores are excellent predictors of academic success.

**For each item below, circle the number** to the right of the response that best describes the results of tests which the student has completed.

**On an individualized intelligence test (name of test: WISC-III) administered within the last three years, the student's overall IQ score was:**

- **Between one and two standard deviations above the mean (115-129)**: 1
- **Between two and three standard deviations above the mean (130-144)**: 2
- **Three or more standard deviations above the mean (145-above)**: 4

If a score is unavailable, an individualized IQ test, such as the WISC-III, Binet IV, or WJ Cognitive Ability Scale, should be administered and the results incorporated into the decision-making process about acceleration. (If the score is below 115, see Sections II, Critical Items.)

**Comments or concerns**: Verbal Score in Superior Range, Performance Score in High Average to Above Average Range. This is NOT a concern.

**Part B: Achievement Test Results**

**Grade level achievement test administered within the last year**

- **Name of test**: JTRB
- **Please indicate the type of test used: Individual ___ Group ___**

**Above-grade level achievement test administered within the last year (if available)**

- **Name of test**: ___
- **Please indicate the type of test used: Individual ___ Group ___**
### Section X: Attitude and Support

19. Planning for Acceleration Prior to Completing the IAS Form

No prior planning or gathering of information has taken place or been shared regarding this student’s acceleration.

Limited staffing, information sharing, and planning have occurred regarding this student’s acceleration.

Extensive staffing, planning, and discussion have occurred regarding this student’s acceleration.

Comments or concerns:  

<table>
<thead>
<tr>
<th>Please circle one</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
</tbody>
</table>

### Section XI: Scale Subtotals, IAS Grand Total, and Guidelines

Is the Academic Ability and Achievement (AAA) Subtotal Score **65**? Yes  X  No  

If AAA Subtotal is <10, do not consider whole-grade acceleration.

Academic Ability and Achievement Subtotal  
12 of a possible 32 points

School and Academic Factors Subtotal  
15 of a possible 22 points

Developmental Factors Subtotal  
6 of a possible 9 points

Interpersonal Skills Subtotal  
14 of a possible 16 points

Attitude and Support Subtotal  
8 of a possible 11 points

Add the above five scale subtotals together to equal the IAS Grand Total:

Iowa Acceleration Scale Grand Total 55 of a possible 90 points

**Guideline for Interpreting the Iowa Acceleration Scale Grand Total:**

- **70 to 90 total points**: Student is an excellent candidate for whole-grade acceleration. Acceleration is recommended.
- **54 to 69 total points**: Student is a good candidate for whole-grade acceleration. Acceleration is recommended.
- **43 to 53 total points**: Student is a marginal candidate for whole-grade acceleration. There is no clear recommendation. Review materials closely and carefully consider alternatives.
- **42 or fewer total points**: Whole-grade acceleration is not recommended. Consider single-subject acceleration, mentoring, enrichment, or other alternatives.

---

### Vocabulary, Total Reading, Total Math, Total Language, Social Studies, Science, Other

<table>
<thead>
<tr>
<th>Vocabulary</th>
<th>Total Reading</th>
<th>Total Math</th>
<th>Total Language</th>
<th>Social Studies</th>
<th>Science</th>
<th>Other (Math Concepts)</th>
</tr>
</thead>
</table>
| 1. On a grade level test, the student:  
Performed at < 90th Percentile: | 0 | 0 | 0 | 0 | 0 | 0 |
| Performed at > 90th Percentile: | 2 | 2 | 2 | 2 | 2 | 2 |
| 2. On an above-grade level test, the student:  
Performed at < 90th Percentile: | 0 | 0 | 0 | 0 | 0 | 0 |
| Performed at > 90th Percentile: | 2 | 2 | 2 | 2 | 2 | 2 |
| 3. Above-grade level test results: not available | - | - | - | - | - | - |

**Comments or concerns:** Language Total from Grade 1 not available for Grade 2

Add all of the numbers circled from Part A and Part B to calculate the Academic Ability and Achievement (AAA) Subtotal: \[12\]

If this (AAA) subtotal is <10, whole-grade acceleration is not recommended.  
If the score is \(\geq 10\), continue on to the next section of this form.

---

### Section VII: School and Academic Factors

Please circle the number to the right of the statement that best describes the student, 1. Grade Placement Under Consideration

- **Please circle one**
  
  - Acceleration would result in a change in building at the beginning of the first semester of the academic year (e.g., elementary to junior high). In this case, a plan for transition is needed.  
  
<table>
<thead>
<tr>
<th>Please circle one</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>
  
  - Acceleration would require the student to attend some classes in another building.  
  
<table>
<thead>
<tr>
<th>Please circle one</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
</tbody>
</table>
  
  - Early entrance would be to kindergarten.  
  
<table>
<thead>
<tr>
<th>Please circle one</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
</tbody>
</table>
  
  - Early entrance would be to first grade.  
  
<table>
<thead>
<tr>
<th>Please circle one</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
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</tbody>
</table>

**Comments or concerns:** Acceleration would mean a change in building.

(These following items have been omitted from Figure 10.2: items 2–7 from Sections VII: School and Academic Factors; Section VIII: Developmental Factors; Section IX: Interpersonal Skills; and items 16–18 of Section X: Attitude and Support.)
Analysis of Team Decision and Outcome

Jenny:
Current Grade: 3rd Grade, with acceleration in Reading and Language Arts
Proposed Grade for Acceleration: 5th Grade
IAS Score: 85 (Good Candidate for Whole-Grade Acceleration)

Overall, Jenny is a good candidate for acceleration into the 5th grade. One concern did suppress her score, and this was indicated in Section VII, Item 1, Grade Placement Under Consideration. Jenny earned a zero on this item, because acceleration at this point in time would result in a mid-year change in buildings—she would be moved from the elementary school to the junior high school. Because the acceleration is still recommended, however, a plan needs to be in place so that Jenny can make the necessary adjustments in the new environment. This plan includes specifically implementing some of the typical transition activities experienced by fourth graders.

Note: In reality, Jenny’s acceleration took place several years ago. Because of this, we have been able to track her progress. At the beginning of the trial period, Jenny was treated much like a transfer student and was given special consideration regarding the change in her routine. In no time, though, her mother reported that Jenny had adapted to the new setting like “a fish to water.” A critical factor to the success of this intervention was the receiving teacher’s willingness and openness to having Jenny in her class. This set the tone for the rest of the class. Additionally, the receiving teacher was involved in the planning phase of the acceleration process, which eased some of Jenny’s anxieties. It was clear from the beginning of the process that Jenny knew what she wanted and was willing to work with the teachers to assure that she was in a challenging setting.

Jenny was very satisfied with her school experience as a result of the acceleration. She was appropriately challenged, and her enthusiasm for school remained undiminished throughout high school and into college. All indicators continue to confirm that the acceleration was a successful educational intervention.

Jenny’s Letter to the Principal

Dear Mrs. S,

I find that the work I’m being given is very discouraging because it’s much too easy. Most of it I know so I do the work and I have to wait for the others to catch up. The grade I’d like to go to is best because it’s comfortable and I can’t have something more challenging. Say for instance I could go to any grade I want as long as I go to Presidential Elementary or Presidential Middle School. I’d like to be in 9th Grade I know it’d be nice to go there and see what it’s like. I don’t care if I leave Presidential Elementary cause I really don’t have any thing really important or true friends that I’d miss.

Sincerely, Jenny

considered. As demonstrated in the sample case (see Figure 10.2), and in addition to the required information from an IQ test, the IAS asks for achievement results from both grade-level and above-grade-level testing. A student must have grade-level test results; and although above-grade-level testing is not required, it is strongly recommended. (With the increase in participation in talent searches of both elementary and middle school students, above-grade-level test results are more readily available.)

Figure 10.2 includes an example of items from an actual case in which the IAS was used to make a whole-grade acceleration decision. "Jenny" is a real student who is currently in her first year of college. Included in Figure 10.2 is a letter that is reproduced exactly as Jenny wrote it. In this letter, Jenny expressed her desire to be skipped into a higher grade. Her motivation and advanced language skills are apparent in this poignant letter. The absence of above-grade-level testing information should be noted. When Jenny’s case was presented, the availability of above-grade-level testing through elementary talent searches was relatively limited, and Jenny’s school district was not participating at that time. Nonetheless, the team’s ultimate decision was that she be accelerated.

When is an Assessment Important for a Gifted Student?

Identification and Programming

The National Association for Gifted Children (1998) Pre-K—Grade 12 Gifted Program Standards include for guidance principles, two of which are relevant to a discussion about assessment. Principle 3 states that: "A student assessment profile of individual strengths and needs must be developed to plan appropriate intervention." Exemplary standards for this principle state that "Individual assessment plans should be developed for all gifted learners who need gifted education. An assessment profile should reflect the gifted learner’s interests, learning style, and educational needs." Principle 4 states that: "All student identification procedures and instruments must be based on current theory and research." The exemplary standards for this principle include: “Student assessment data should come from multiple sources and include multiple assessment methods. . . . Student assessment data should represent an appropriate balance of reliable and valid quantitative and qualitative measures.”

Although these standards are well intentioned, they do not provide the typical educator of the gifted with a great deal of guidance about specific steps to take. Educators need to be thoroughly informed before embarking on an assessment. However, only through an assessment will educators be able to provide students with a curriculum that is based upon the learner’s needs.

Jenny expressed her desire to be skipped into a higher grade. Her motivation and advanced language skills are apparent in this poignant letter. The absence of above-grade-level testing information should be noted. When Jenny’s case was presented, the availability of above-grade-level testing through elementary talent searches was relatively limited, and Jenny’s school district was not participating at that time. Nonetheless, the team’s ultimate decision was that she be accelerated.

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The Twice-Exceptional Student

The twice-exceptional student is exceptional in at least two ways: (a) Giftedness is one of the exceptionalities, and (b) one or more disabilities, for example, a physical, learning, and/or emotional disability, represents the second exceptionality. Combining the terms gifted and learning disabled may seem to pose a conflict to some, especially to those who may still adhere to Terman’s (1925) convictions. Although Terman’s work was important because it dispelled the myth of the sickly, socially awkward child and introduced us to the gifted child as an individual with superior intelligence, in good health, and socially well adjusted, these same conclusions masked our awareness that some gifted children also had physical, learning, or social-emotional exceptionalities that needed to be addressed.

Since the 1975 passage of PL 94-142, there is increased public awareness regarding the characteristics of all students with disabilities. Public awareness has grown to recognize that many students with disabilities are also gifted, and vice versa. For comprehensive discussions on students who are gifted and learning disabled, see Brady and Mills (1997) and Cohen and Vaughn (1994). Kautzmann and Castellanos (2001) provide an excellent review of the gifted student with ADHD, and Neihart (2000) points that gifted children with Asperger’s Syndrome are under-identified because some of their behaviors are incorrectly attributed to learning disabilities.

For most students who are twice-exceptional, an IQ test is a critical first step to discovering their giftedness, but the analysis of the IQ test profile must go beyond the score to look at patterns of strengths and weaknesses, especially within the context of the newer theories of intelligences.

Which Tests Are Recommended for the Assessment of Gifted Students?

Assalone and Lapkowski-Shoplik (in press) have developed for educators and parents “Consumer Guidelines for Educational Assessments,” which includes:

1. The assessment question guides the selection of tests and drives the recommendations. Parents should be...

3. See Chapter 7 by Sternberg and Chapter 8 by von Kroski, Ramos-Ford, and Gardner...
involved in formulating the assessment question. 

2. Know what types of tests are appropriate and useful for obtaining the needed information. A general ability test can be helpful in predicting success in school, but won't give enough specific information about a child's specific aptitude, for example, mathematics, to determine placement in a mathematics class or programming within that class.

3. Confirm that the person conducting the assessment has appropriate training. A teacher who is familiar with the directions can administer these tests. Other tests require extensive training, and the person administering them usually has an advanced degree.

4. Test results should be reported in written form. This report should include the actual test scores, which should be presented within an educational context. A test score, by itself, is of little value.

5. Verify that the report will include several specific recommendations individualized to the child to whom the test was administered. A complete list of pre-published educational practices is not acceptable.

6. Reports should be completed and sent in a timely fashion. This is within one month after the assessment has been completed. Parents can be notified of any delays.

7. Parents should know whether a test will be administered in a group or individually. If the test is individually administered, parents should know in advance whether the test is designed for electronic response, paper and pencil response, or whether the student will actually take the test.

8. Cost may be an issue for some parents. At one end of the cost continuum, testing might be done through the school district at no cost to parents. At the other end, some parents may pay several hundred dollars, especially for a thorough assessment that includes an individualized intelligence test.

**SUMMARY AND CONCLUSIONS**

This chapter highlighted the brief history of testing and its role in the educational lives of gifted children. Much of the chapter was a defense of testing as the primary way in which psychologists and educators obtain the information necessary for placement and programming. Although the general public, as well as some educators, sometimes criticize testing as an unnecessary educational practice, there is strong evidence that testing should continue to be an integral part of the education of all students, and gifted students in particular. The two case studies demonstrated the importance of a professional interpretation of the results from testing to the educational decision-making process.

**QUESTIONS FOR THOUGHT AND DISCUSSION**

1. What can an individualized intelligence test tell you about a student? How does it score from an IQ test to the understanding of a student's learning needs?

2. According to Aspinwall, testing is one of four components of an assessment. Why was testing described as the most important component? How do the other three components fit into an assessment?

3. Imagine that a school board member wants to eliminate testing from the gifted education program to save money. The person believes that testing should be replaced with "portfolio assessment." List five to seven points from this chapter that would be your response to this board member's recommendation.

4. Think of an elementary school in your state that does not have accelerated experiences. How would testing fit into curricular planning for that student?

5. Some gifted students also have a learning disability or social-emotional disability. How can an assessment help educators and parents achieve a better understanding of such a student?

**REFERENCES**


Module 2

Caroline Merrick
Ruth Targett
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GERRIC
School of Education, UNSW
Sydney, NSW, Australia 2052
Phone: +61 2 9385 1972
Fax: +61 2 9385 1973
Email: gerric@unsw.edu.au

Writers:
Modules 1 & 3: Professor Miraca U.M. Gross
Module 2: Caroline Merrick & Ruth Targett
Module 4: Dr Graham Chaffey
Modules 5A & 5B: Bronwyn MacLeod
Module 6: Stan Bailey

Package Editor: Stan Bailey
Photographs: Steve Walsh & Bronwyn MacLeod
Administrative Assistance: Donna Sobanski
GERRIC Project Officer: Rosalind Walsh
Assistance with Navigational Package: Dr Katherine Hoekman
Package Content Design & Production: GERRIC at the UNSW
CD-ROM Production & Graphic Design: Belinda Allen & Teresa Attfield, EDTeC (Educational Development & Technology Centre) UNSW
Welcome!

You are about to start a Professional Development Course which will help you identify the gifted and talented students in your class or your school, and differentiate the curriculum to respond to their individual learning needs. You'll also be able to decide which of your students may benefit from various forms of ability or interest grouping and which may possibly be candidates for one or more of the many forms of academic acceleration.

About the Package

The course consists of six Modules

Each Module consists of three levels: Core, Extension and Specialisation. The Core levels of the six Modules are the heart of this course. The Core Modules contain essential information and practical advice and strategies to assist you to identify and respond to your gifted and talented students.

We strongly suggest that you complete the Core level of each Module.

Pre-tests

We are aware that teachers and school administrators will enter this course with a wide range of existing knowledge of gifted and talented education. To accommodate this range of knowledge and experience, we have started each Core Module, from Module 2 onwards, with a pre-test. We encourage you to take these pre-tests and, if you ‘test out’ on any Module at Core level, simply move on to the next Module. For example, if you ‘test out’ of Core Module 2 you will pass over that Module and move on to Core Module 3.

Extension and Specialisation Levels

Extension and Specialisation levels for each Module. Material covered in the Extension and Specialisation levels builds on the knowledge you will have gained from the Core level in each Module. Key issues are examined in greater depth and participants explore a wider range of issues in the cognitive and social-emotional development of gifted students. New identification, curriculum differentiation and program development techniques are introduced.

The Extension and Specialisation levels require teachers, counsellors and administrators to undertake further reading and practical activities to reflect on classroom practice, school practice and policy. They encourage participants to focus on their specific role in the school and prepare a brief action plan to demonstrate application or mastery of outcomes.

Schools may decide that completion of the course at Specialisation level would be a useful prerequisite for becoming the school's Gifted Education Coordinator.
What will you learn in this course?

The course consists of six Modules:

**Module One: Understanding Giftedness**
Understanding the nature of giftedness and talent; what the terms mean; levels and types of giftedness. Cognitive and affective characteristics of gifted and talented students; ways in which these students may differ from their classmates - even if at first we don’t observe this.

**Module Two: The Identification of Gifted Students**
A range of practical identification procedures, with particular attention to procedures which are effective in identifying gifted students from culturally diverse and disadvantaged groups. We’ll be emphasising the use of a combination of approaches rather than a single measure such as IQ testing or teacher nomination used in isolation.

**Module Three: Social and Emotional Development of Gifted Students**
Understanding the social and emotional characteristics and needs of gifted students. Ways in which gifted students may differ somewhat from their classmates in their social and emotional development. Supporting gifted students and their parents. Teaching strategies and class structures which foster the development of positive social attitudes and supportive peer relationships in gifted students.

**Module Four: Understanding Underachievement in Gifted Students**
Understanding the causes of underachievement in gifted students. Identifying gifted underachievers and planning interventions designed to prevent and reverse cycles of underachievement.

**Module Five: Curriculum Differentiation for Gifted Students**
Teaching strategies and methods of curriculum differentiation which enhance the learning of gifted students in the regular classroom. Appropriate use of different enrichment models that international research has found to be effective with gifted and talented students. Practical applications of pre-testing, curriculum compacting and individualised programming.

**Module Six: Developing Programs and Provisions for Gifted Students**
Practical strategies for the establishment and monitoring of ability, achievement or interest grouping, and the many forms of accelerated progression. Particular attention will be paid to the effects of various strategies on students’ academic and social development.
Using the package

Much of the material is suitable across teaching and learning contexts. This content is not specifically marked. However, content that may be applicable to your particular context is identified as follows:

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Follow these symbols through the content to customise your learning path.

Each Module comes in two parts, each concluding with a practical exercise. We suggest that you complete the first and second parts a few days apart - unless this is not workable in your particular learning context. This will give you a chance to digest the information in Part 1 and work through the Reflective/Practical component.
Core Module 2:
Identification of Gifted and Talented Students

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Welcome to Module 2, Identification of Gifted and Talented Students. In this Module you will become familiar with some of the tools and techniques that are used to identify giftedness and talent in students at different levels of schooling.

This is a challenging process, as each school will have students with different characteristics, circumstances and needs.

As will become clear throughout this Module, the key purpose of identifying gifted and talented students is to serve them with a program and curriculum that meet their needs.
1. What is the main purpose of identifying a gifted student?
   
   (a) To compare them with other students.
   
   (b) To provide appropriate programs and curriculum.
   
   (c) To give feedback to parents.
   
   (d) To label the child gifted and talented.

2. When trying to identify gifted and talented students we should:
   
   (a) Use one objective measure, as these tools are not influenced by personal opinion or bias.
   
   (b) Use one subjective measure, as teachers and parents are the best people to identify gifted and talented students.
   
   (c) Use multiple measures, comprising a combination of objective and subjective measures, according to the definition of giftedness and talent used by the school and the nature of the program.
   
   (d) Use one objective and one subjective measure as this will allow for balance in the identification process.

3. Explain the difference between objective and subjective measures.

4. When would you use a subjective measure and when would you use an objective measure?

5. What might be the most effective identification process for the following student? Read the case study and make recommendations.

   Ray is in Year 9 and coasts through school. He is popular and is regards as ‘cool’. His teachers would say that he is an average student who is performing at the level they would expect of a student of his ability. His English teacher has just discovered that Ray writes exceptional poetry but is surprised that he wants to hide this part of himself. She thinks this is interesting as he has shown no real interest in English in her class. She even wonders if he really wrote it himself.

   What tools might be useful to assess whether Ray is a gifted student?
3. Subjective measures are judgements based on individuals’ personal observations. Objective measures are those that produce comparable scores, eg from standardised tests, that indicate potential or performance relative to a large population of other students.

4. You should aim to use a combination of both subjective and objective measures in the identification process. Objective measures may confirm personal observations and judgements made when using subjective measures.

5. The following modelled response has been provided for the case study.

What tools might be useful to assess whether Ray is a gifted student?

Ray’s English teacher asks his parents to complete a Parent Nomination Form. She asks his other teachers to complete a subject scale such as the Purdue Academic Rating Scale for the core subjects. She approaches the school counsellor to arrange for Ray to take an IQ test. She also asks Ray to put together a portfolio of his writing, which she promises to keep to herself. She analyses the data collected from his state literacy and numeracy tests.

Outcomes

At the completion of this Module, you will:

- understand the purpose of identification.
- understand the difference between objective and subjective identification tools and when to use them.
- be aware of various tools available for identification.
- appreciate the need for multiple identification criteria.
Identification as an ongoing process

As discussed in Module 1, gifted and talented students have different learning needs from those of their age peers of average ability and therefore need special educational planning to support them in developing their potential. The first step in helping these students is to find them - and this is commonly termed identification.

Just as it is important to identify students with learning disabilities and assess their particular learning needs on the learning continuum, it is also necessary to identify each gifted child’s specific learning needs and current level of achievement. The purpose of identifying a gifted child is to provide appropriate learning experiences (Richert, 2003).

Once a student has been identified as gifted, we can then use appropriate educational interventions and strategies in order to move them along the learning continuum. In the process we may unearth additional gifts in specific areas, identify students whose needs are not being met by the current curriculum and provide evidence for inclusion in a particular program. These are both the main purposes of identifying gifted and talented students and the desired outcomes of successful identification.

Identification is not intended to label children once and for all as gifted or not gifted. Rather, it is an ongoing process, with a diagnostic purpose, just as it is for students in other special needs groups. Identification should occur throughout a child's educational journey. New contexts and developmental changes may alter the expression of different abilities at various times, requiring ongoing identification. It is a shared responsibility between parents, teachers, counsellors and trained professionals. Periodic assessment is required as students’ gifts grow and change.

In a nutshell, we can see the process of identification as ongoing:
When identifying gifted students we need to know not only whether they are gifted and/or talented but also in what domain(s) the gifts or talents are sited.

**Rationale**

Identification of gifted and talented students can be a complex issue and the selection of the most suitable tests, checklists and other tools for your school is very important. Choosing the ‘right’ tools will help you provide defensible interventions for gifted and talented students (Borland, 1989). By defensible we mean that your school can affirm that you are using the best methods available, so that your selection or placement decisions are soundly based and therefore fair and valid. Your school will be able to explain that your identification processes aim to identify as many as possible of the gifted and talented students at the school, using a variety of reliable and valid data collection processes.

The rationale behind the way gifted and talented students are identified is dependent on the definitions of giftedness and talent that the school adopts. The Gagné model is the rationale behind the identification system used in this Professional Development Course, so this model will guide our discussion of identification tools and their use. If you are looking for students who are either gifted or talented (or both, with some gifts having been successfully translated into talents and others still to be assisted), you need to use a variety of tools that will allow you to identify high potential as well as high performance. Identification procedures need to take into consideration the important issue that some gifted children freely express their abilities at school, while others may not.
Principles of effective identification

There are several important principles, supported by research, to guide you in your endeavours to identify gifted students effectively and confidently. These include:

- Using tools and strategies that are prescribed by, or in harmony with, the definitions of giftedness and talent adopted by your school (eg Gagné’s, as described in Module 1).

- Using multiple criteria, so that you may identify as many of your gifted students as possible, using a variety and balance of both subjective and objective measures.

- Ensuring that the tools and strategies you use are reliable and valid.

Reliability refers to the accuracy or consistency of an identification method (eg teacher nomination may be considered to have low reliability if two teachers estimate quite differently the potential in a particular domain of the same student, or group of students).

Validity refers to the extent to which an identification method measures what it is supposed to measure (eg parent nomination may be considered to have low validity if all students in a comprehensive school are rated as gifted).
Reliability and validity will be expanded upon in the Extension and Specialisation levels of this Module.

- Examining the intrapersonal and environmental catalysts which are influencing the expression of giftedness.
- Establishing equity of procedures to ensure that no one is overlooked. This will include considering children from disadvantaged backgrounds, and taking into account cultural influences.
- Beginning the identification process early to help prevent chronic underachievement.
- Providing appropriate education (eg in pace and level). We will cover this in the subsequent Modules.

**The range of identification measures which the school adopts should be designed to identify all of the gifted and talented students in the school population.**

**So, how do we know what are the best measures?**

Identification measures fall into two basic categories: subjective and objective measures.

**Subjective measures** allow judgements to be made on the basis of structured observations of the student. These include teacher, parent, peer and self nomination, along with anecdotal records contributed by previous teachers and the child’s family.

**Objective measures** are standardised tests of ability or achievement. These include IQ tests and other forms of psychometric testing, standardised performance tests, dynamic testing and off-level testing.

You may also see these two types of measures referred to as **quantitative** (objective) and **qualitative** (subjective). Effective identification of gifted children requires evidence from both categories.

Effective identification will provide:

- evidence of both students’ ability (potential) and their current level of performance.
- pointers to underachievement, including information about the environmental and personalogical catalysts, which may be influencing students’ current performance. (You may wish to re-read the section on Gagné in Module 1 which outlines the possible impact of these catalysts).
- information that initiates appropriate curriculum and programs.
Did you know that effective identification will help you to identify underachieving gifted students, including students from culturally diverse and disadvantaged populations?

(You can read more on this, later in this Module, and in Module 4).

Not all gifted students perform well in the school system

The school should also employ identification procedures which are designed to find students who are not achieving at levels commensurate with their ability, due to negative effects of intrapersonal and environmental catalysts. These students are called gifted underachievers and in Module 4 we will explain some of the reasons why underachievement is so prevalent among gifted and talented children and adolescents.

A wide range of strategies must be used to assist identification. The tools you use will depend upon the child’s age, need, location, background and the resources available to you in your school, district or system. These will be different for each individual in each school. A defensible identification process must contain a balance of objective and subjective measures.

Subjective measures

Giftedness has many dimensions and so should the identification process. Subjective measures allow teachers, parents, peers and the students themselves to use checklists and other descriptors which help them make evaluative judgements about a student’s ability.

Parent nomination

Parents are a valuable source of information. No one knows a child, particularly a young child, better than their parent. Parents have information on both the positive and negative characteristics of their children, particularly in the first five years of life before schooling begins. They know their children’s areas of interest and passion.

Significant areas of advanced development can be readily observed in young children and it is the parent who is the ‘keeper’ of this information.

Parents may be aware of the ages at which their child moved through stages of speech acquisition, physical development milestones, stages of prereading and early reading, and the development of numeracy and early interests. Early development of speech, movement and reading are strong predictors of high intellectual ability. Gross’s (2004) study of exceptionally gifted children recorded children who sat up at four months, uttered their first meaningful word by eight months and walked up stairs by nine months. Clearly, these children demonstrated learning which was significantly in advance of their peers. These behaviours occurred long before school entry. They were observed by parents: their teachers weren’t around at the time! It is essential to
involve parents in the identification process if we are to gain a whole picture of the child. Early
development and milestones will be expanded upon in the Extension and Specialisation levels of this Module.

Teachers are often sceptical that parents may overestimate their child’s abilities. However,
parents of gifted young children more often underestimate their child’s abilities, as they may see
them as normal, compared to siblings or other family members. In a family where children are
developmentally advanced, what parents consider to be normal development may later be seen
as substantially advanced when the child enrolls in school.

Teachers do not see these early developmental stages. Parents are more likely to know when
particular areas of strength are most evident - and this can be a very useful aid to the identification
process. To assist parents to record this valuable information, a set of questions which allows an
anecdotal example to be provided, is a most useful tool for identification. Be aware that for some
cultural groups there may be reticence to nominate a child or that cultural norms may hold back
or hide gifted students. This is particularly true where it is culturally inappropriate to stand out.

A variety of parent checklists is available and your state or territory may have a preferred version. However, one that we recommend, developed by Professor Michael Sayler of the University of North Texas and already used in a number of Australian schools, is included below for your
use.

Nomination forms can be extremely useful in identifying gifted secondary students. Information
about interests and passions, which also appear outside school, are very relevant to the
secondary teacher.
GERRIC RESOURCES
GIFTED AND TALENTED CHECKLIST FOR PARENTS
THINGS MY CHILD HAS DONE

Carefully read each of the following descriptions. Each item is followed by a series of examples; use the examples to help understand the description in the item. Decide how much you agree that your child is like the description. Mark your agreement on the scale from strongly agree (SA) to strongly disagree (SD). Fill in one circle for each item. If you are unclear or haven’t noticed how your child compares to an item, fill in the Unsure or don’t know circle. Then, tell us about a time your child did the things in the item. Try to recall specific incidents or examples about your child. Feel free to add extra pages of stories or examples to tell us more about your child.

Child’s name: ____________________________  Child’s birthday: ____________________________

Your name: ____________________________  School name: ____________________________

Date: ____________________________

My child:

1. Has quick recall of information.
   (e.g. immediately remembers facts, series of numbers, events, words from songs or movies, or parts of conversation heard earlier)

   SA ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ SD  ○ Unsure or don’t know
   A personal example:

2. Knows a lot more about some topics than do other children that age.
   (e.g. recounts facts about dinosaurs, sports, electronics, maths, books, animals, music, art, etc; finds out a lot about a particular subject on his or her own)

   SA ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ SD  ○ Unsure or don’t know
   A personal example:

3. Uses advanced vocabulary.
   (e.g. surprises older children and adults with the big words used; uses words unusual for a child, knows the correct terms, exact words or labels for things; acts and speaks like a grown-up when talking to adults; uses simpler words when talking to peers or younger children)

   SA ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ SD  ○ Unsure or don’t know
   A personal example:
4. Began to read or write early.
(e.g. said or could read individual words at a very young age; started to read before entering school; likes to write or tell stories; learned to read without being taught)

SA 1 1 1 1 1 1 1 1 1 1 SD ○ Unsure or don’t know
A personal example and age of child at the time:

5. Shows unusually intense interest and enjoyment when learning about new things.
(e.g. has lots of energy and interest when learning; frequently and persistently asks how and why questions; is not satisfied with simple answers; wants to know details; loves how-to-do-it and nonfiction books)

SA 1 1 1 1 1 1 1 1 1 1 SD ○ Unsure or don’t know
A personal example:

6. Understands things well enough to teach others.
(e.g. teaches other children how to do things; explains things so that others can understand; explains areas of interest to adults)

SA 1 1 1 1 1 1 1 1 1 1 SD ○ Unsure or don’t know
A personal example:

7. Is comfortable around adults.
(e.g. spends time with and talks to adults who visit the house; likes the company of adults; enjoys talking with adults; understands adult humour and creates funny sayings or jokes adults can appreciate)

SA 1 1 1 1 1 1 1 1 1 1 SD ○ Unsure or don’t know
A personal example:

8. Shows leadership abilities
(e.g. other children ask my child for help; organises games and activities for self or others; makes up the rules and directs group activities; may be bossy)

SA 1 1 1 1 1 1 1 1 1 1 SD ○ Unsure or don’t know
A personal example:
9. Is resourceful and improvises well.
(e.g. puts together various household objects to make inventions or solve a problem; uses unusual objects for projects; uses objects in unusual ways; makes ‘something out of nothing’)

SA 9 8 7 6 5 4 3 2 1 0 SD
A personal example:

O Unsure or don’t know

10. Uses imaginative methods to accomplish tasks.
(e.g. makes creative short cuts; doesn’t always follow the rules; good at finding creative ways to get out of work)

SA 9 8 7 6 5 4 3 2 1 0 SD
A personal example:

O Unsure or don’t know

11. Use the rest of this page or its back to tell us anything you think is important about your child that we have not asked about. Please feel free to add any information you think might be useful in giving us a clear picture of what your child has done. Be as specific as possible in describing your child’s interests and accomplishments. If you can share some copies of your child’s creative work, we would be delighted to have them.
Here is an example of a useful parent checklist item on Sayler’s ‘Things My Young Child Has Done’:

Checklist item:

**My child:**

1. **Has quick accurate recall of information.**

(eg remembers complex happenings and describes them long afterwards in clear details; learns notes and words to songs quickly; remembers landmarks and turns on the way to familiar places.)

SA 10 9 8 7 6 5 4 3 2 1 0  SD 0 Unsure or don’t know

A personal example:

**An example of a parent response to the above checklist item, follows;**

**My child:** Antonio Tamaro

SA 10 9 8 7 6 5 4 3 2 1 0  SD 0 Unsure or don’t know

A personal example:

Antonio was only 18 months old when his grandparents moved house. After his first visit to Grandma’s, he directed the way home from the back seat of the car by pointing. The 20-minute trip was achieved perfectly. By age two-and-a-half he could remember the words to 20 nursery rhymes, which all had to be recited every night!

It is clear that Antonio has an excellent memory, both verbally and spatially. However, more than one item is required in order to develop an overall picture of Antonio’s ability. Using a detailed parent nomination form will assist the teacher to note the overall pattern of Antonio’s behaviours, early interests and passions.

It is sometimes easy for educators to dismiss parent information or anecdotes as parental pride. However, it is these anecdotes which tell you, the teacher, just how early the child was displaying specific behaviours. This will also allow you to assess just how different the child is from his or her age-peers. Parents will be more likely to cooperate when you explain that you are interested in knowing more about their child and the way he or she learns.

**Limitations of the parent nomination checklist**

As with all identification procedures, parent nomination has some limitations. For example:

- A parent may not be fully aware of the degree of a child’s advancement.
- Adoption or fostering may mean that consistency of information has not been maintained.
• A parent may not be able to read, interpret or understand the nomination form due to language, literacy or cultural barriers.

• Parents may not have all the relevant information, due to family breakdowns.

• For a variety of reasons, parents may refuse to complete the form.

**Interpreting parent checklists**

Interpreting parent checklists means reading carefully through the information given and asking yourself:

• Are there gifted behaviours being observed at home?

• Are there early milestones achieved at a younger age than the norm?

• Are more than a third of the items illustrated with descriptive anecdotes?

This information should indicate whether the child is displaying observable gifted behaviours, which can then be combined with information from the other subjective and objective measures the school can use.

**Teacher nomination**

Module 1 presented a range of learning characteristics and social-emotional characteristics of gifted students. These characteristics are readily observable if teachers know what they are looking for. Certainly, poor teacher nomination can occur when teachers make a subjective judgement without the support of checklists or other tools. For example, teachers may associate giftedness only with high performance. However, many gifted children may not outperform or even equal their peers on everyday classwork. Rather it is on complex, more advanced work, in the student’s area of high ability, that you may see greater evidence of giftedness.

A behavioural checklist is a useful tool for teacher nomination. It may facilitate structured observation of both positive and negative behaviours in students. Teachers wanting to identify their gifted students sometimes make the mistake of looking only for positive behaviours.
However, gifted children who are frustrated, bored or switched off learning will rarely be feeling positive about their school experience - and boredom and frustration are rarely manifested in positive ways! Gifted underachievers are unlikely to be identified by teacher checklists which consist only of positive descriptors.

Here is an example of how a characteristic can be described in both its positive and negative forms:

**Characteristic**
High level of curiosity and a wide variety of interests

**Positive Behaviour**
Investigates ideas, remembers things in great detail, asks questions.

**Negative Behaviour**
Easily diverted from the task, takes on too many projects, asks questions at inappropriate times.

**Scenario of a classroom setting**

Mrs McCarthy would describe 12 year-old William as a dreamer, rather average and not particularly interested in much that goes on in the classroom. He floats through class and seems to be miles away, lost in his thoughts most of the time. He usually performs poorly on his written work and misses instructions, needing these to be given again and again. However, on weekends, William belongs to the Geologists Society, which is run by Mr Cameron, a geology teacher from the local high school.

William loves nothing more than spending his weekends digging for fossils and classifying rocks. He has quite a collection even though he is at least 20 years younger than most other members of the Society. The adults in the group refer to him as ‘Professor William’ and when they unearth a new find, ask for his opinion. They describe his level of knowledge as that of an expert. He dreams of becoming an archaeologist or anthropologist (he is yet to decide!) and has made some significant finds.

William rushes through his homework in order to get on to more interesting things. He sees school as a waste of time and ‘saves himself’ for his research. He has a documented journal of his fossicking adventures and records in great detail what he has discovered each trip. He also enjoys emailing the adults in his fossicking group, asking questions and planning future trips.

Mrs McCarthy and Mr Cameron would have very different views of William. However, a checklist of behaviours employed after seeing William engaged in his passion area of geology and ancient civilisations would elicit a very different profile from his daily class work. Therefore, it is crucial when using teacher nomination that you give students the opportunity to engage in an area of advanced and complex content. You can then look for demonstrated behaviours that indicate gifted characteristics.

Students need to engage in challenging and complex activities in order to demonstrate advanced thinking and complex reasoning. For example, curiosity may only be evident when there is something to be curious about. Use of sophisticated humour may only manifest itself when children are given the opportunity to be ‘cleverly’ funny.
You may need to design a range of complex activities in order to elicit these gifted behaviours.

Be careful not to use the ‘shopping list’ approach, whereby you observe a student for 10 minutes, aiming to tick off all the items which describe the student. Structured longer-term observation is more valid. You should observe the child over a period of time, during which different experiences are offered and specific behaviours can be observed.

Teacher nomination forms or checklists come in many styles. Your state or territory may have a preferred version. However, the following table is an alternative which you can use.
**Primary and Secondary**  
**Teacher Nomination Form**

Record the name of your student. Use a highlighter to show each behaviour you observe in the classroom or playground.

**Name of Student:** _________________________  **Age:** _______________  
**Teacher:** ________________________________  **Date:** ________________

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Behaviours</th>
</tr>
</thead>
</table>
| Unusual alertness                           | • intense concentration and interest in interactions and objects  
  • long attention span                       |
| Advanced play behaviour                     | • interest in games with rules developed at an earlier age than usual  
  • able to play games which require strategy earlier than age-peers |
| Exceptional memory                          | • ability to recall information in great detail. Often tells stories to the teacher with a immense amount of detail.                     |
| Early reading                               | • ability to read on entry to school                                                                                                   |
| Rapid pace of learning                      | • appears to acquire knowledge effortlessly  
  • ability to generalise the knowledge to new situations in unexpected ways                                                        |
| Asks lots of questions                      | • ask probing and reflective questions                                                                                                 |
| Early development of classifying and        | • organises things by classifying into groups  
  investigating skills                         |  
  • investigates how things work and wonders ‘what will happen if …’                                                                 |
| Exceptional mathematical ability             | • capacity to grasp abstract mathematical concepts at unusually early age                                                             |
| Imagination                        | • has an imaginary friend or animal  
|                                 | • creative and inventive storyteller |
| Early speech                      | • love of rich vocabulary; larger than expected vocabulary compared with age peers  
|                                 | • capacity to create complex sentences |
| Early social interactions         | • early awareness of the individuality of others  
|                                 | • intense concern for other children who are hurt |
| Feelings of frustration           | • frustrated if motor coordination lags behind intellectual development, such as pencil grip  
|                                 | • may be resistant to writing or drawing |
| Heightened sensitivity            | • early capacity to empathise with feelings of others |
| Social and emotional maturity     | • emotionally more like older children and may seek them out as friends  
|                                 | • may be isolated from same-age peers because of his or her more mature interests and perceptions |
| Early awareness of difference from others | • norm-references to other children from an early age  
|                                 | • may deliberately begin making mistakes to be like other children |

Caroline Merrick, 2004

**Scoring the Checklist**

Have you highlighted more than 5 different behaviour boxes?  YES / NO

How many characteristics (in the first column) are being displayed? ________________

Conclusions:

_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
Let’s look at how Mrs McCarthy would score William on a Teacher Nomination Form:

**Primary and Secondary**

**Teacher Nomination Form**

*Record the name of your student. Use a highlighter to show each behaviour you observe in the classroom or playground.*

**Name of Student:** William Harris  
**Age:** 12  
**Teacher:** Mrs McCarthy  
**Date:** Nov 2004

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Positive Behaviours</th>
<th>Negative Behaviours</th>
</tr>
</thead>
</table>
| Highly curious                         | • asks lots of questions  
• inquisitive  
• remembers details | • asks inappropriate questions  
• poor group participant  
• easily diverted from task |
| Abstract thinker                       | • makes generalisations  
• tests out ideas | • questions others  
• questions authority |
| Flexible thinker                       | • employs variety of strategies to work something out | • manipulates people and situations by using a variety of strategies |
| Clever use of humour                   | • enjoys ‘adult’ humour  
• gets teachers’ jokes! | • uses humour at the expense of others |
| Superior Vocabulary                    | • heightened involvement in discussions  
• enjoys adult-like discussions | • may be bossy or overbearing when working with others |
| Advanced Reading                       | • reads widely  
• advanced vocabulary and comprehension | • reads constantly  
• neglects peer interaction and work-prefers to read |
| Retention of knowledge; fast learner   | • moves beyond core content and skills quickly  
• detailed recall of facts | • rushes work, then disrupts others  
• monopolises class discussions |
| Long attention span                    | • concentrates and focuses on an area of interest for a long period of time | • easily distracted unless the task is an area of passion or interest |
| Independent                            | • self-directed  
• focused on task in research or study | • reduced involvement in discussion or group work  
• uncooperative in a group |
| High level of responsibility and commitment | • sets attainable goals  
• learns to accept own limitations  
• tolerant of peers in a group | • self-critical  
• perfectionist when completing tasks  
• sets unrealistic expectations for other group members |
| Strong feelings and opinions | • listens to others  
• shows concern and interest  
• considers others’ points of view  
• aware of others’ feelings | • speaks out and lacks tact  
• over-reacts to others’ comments and reactions  
• confrontational |
| Strong sense of justice | • empathises with those less fortunate  
• wants to ‘save the world’  
• stands up for other children whom they think have been poorly treated | • argues the rules in games eg handball  
• frustration when others don’t play exactly by rules  
• asks older children or adults to solve issues seen as ‘unfair’ |
| Original and creative | • comes up with ideas ‘out of the box’  
• sees problems as a whole  
• connects thoughts and feelings | • unaccepting of status quo  
• absent-minded or daydreamer  
• asks unrelated questions  
• disorganised |
| High energy level | • wide variety of interests  
• organises time well  
• high level of individualised learning | • often difficult to live with  
• may appear hyperactive  
• easily bored so seeks out new things to explore |
| Immersion learner | • wants to know everything about a topic  
• becomes an expert on a topic by reading widely or talking to people | • focuses on topics of interest to them, at the expense of classroom work  
• shows off knowledge to prove others wrong |

Caroline Merrick, 2004  
Adapted from Gross, MacLeod, Drummond & Merrick (2001), Clark (1983) and Baska (1989)

### Scoring the Checklist

How many positive behaviours are being displayed?  
1

How many negative behaviours are being displayed?  
11

Have you highlighted behaviours in more than 5 different behaviour boxes?  
YES

Of which behaviours are you observing more:  
NEGATIVE

Conclusions:

William is displaying a majority of negative behaviours and should be further considered, using other identification tools. Follow up this teacher nomination form by speaking with his parents to find out if there are any other teachers who teach William in or out of school, eg music, drama, basketball. Ask William’s parents to complete a Parent Nomination Form. Record any objective test results, which may be on file. Consider other identification tools, particularly objective measures, such as an IQ assessment and off level testing.
Now let's look at how Mr Cameron would score William on a Teacher Nomination Form:

**Primary and Secondary**

**Teacher Nomination Form**

*Record the name of your student. Use a highlighter to show each behaviour you observe in the classroom or playground.*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Positive Behaviours</th>
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| • wants to ‘save the world’ | • frustration when others don’t play exactly by rules |
| • stands up for other children whom they think have been poorly treated | • asks older children or adults to solve issues seen as ‘unfair’ |

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| • sees problems as a whole | • absent-minded or daydreamer |
| • connects thoughts and feelings | • asks unrelated questions |
| • | • disorganised |

| High energy level | • wide variety of interests | • often difficult to live with |
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| Immersion learner | • wants to know everything about a topic | • focuses on topics of interest to them, at the expense of classroom work |
| • becomes an expert on a topic by reading widely or talking to people | • shows off knowledge to prove others wrong |

Caroline Merrick, 2004
Adapted from Gross, MacLeod, Drummond & Merrick (2001); Clark (1983) and Baska (1989)

**Scoring the Checklist**

- How many positive behaviours are being displayed? 15
- How many negative behaviours are being displayed? 1
- Have you highlighted behaviours in more than 5 different behaviour boxes? YES
- Of which behaviours are you observing more: POSITIVE

**Conclusions:**

William’s scientific knowledge is quite phenomenal. He is displaying many of these gifted behaviours, most of which are in the column of positive behaviours. I was more than happy to complete this Teacher Nomination Form for you, Mrs McCarthy. Please call me if you would like any further details.
Mrs McCarthy has identified clusters of William’s negative characteristics while Mr Cameron has identified positive characteristics. Individually, these checklists both show gifted behaviours. However, looking at both checklists, we can see how different patterns emerge in different contexts. In Mrs McCarthy’s class, William is gifted but not showing it. With Mr Cameron, he emerges as highly talented!

Who else can you ask to complete teacher nomination forms?

You may be able to ask other educators, who may teach these students, also to complete the Teacher Nomination Forms. This will add greater weight to the subjective elements of the identification process.

Asking teachers from different faculties to complete Teacher Nomination Forms may highlight gifts and talents in specific subjects. A more complete picture of the student’s current level of functioning will become more evident as a result of this process. This process may also mean that all the student’s teachers begin seeing the him or her differently.

Interpreting teacher nomination checklists

When you have collated the information gathered on the Teacher Nomination Forms, you are ready to interpret it. When analysing this information, you are looking for any patterns and clusters of gifted behaviours, which you have read about in Module 1.

Look for at least one-third of these behaviours or characteristics to be highlighted on the Teacher Nomination Form.

These can either be in the positive or negative behaviours column. The more behaviours that are highlighted, the more evidence you have collected to support your belief that this child is gifted.

When you have collated the evidence from teacher nomination - together with the other subjective measures and the objective measures which we will discuss later in this Module - you should have a much clearer picture of whether or not the student is gifted, and in what areas his or her gifts lie. The information gathered from the subjective and objective measures used will be very important in determining the child’s needs, in terms of programs, provisions and curriculum differentiation.

If the teacher nomination forms show a majority of negative (rather than positive) behaviours, be aware that this often indicates underachievement in gifted students. This should lead you to investigate possible causes - which we will address in Module 4.
**Limitations of teacher nomination**

As with all identification procedures, teacher nomination has some limitations. These include:

- Teachers may not believe the student is gifted and consequently may not use the checklist to identify the student.
- Teachers trained in the use of such checklists are more accurate in the identification of gifted and talented students than those who have not had such training. Teachers without this training may identify ‘moderately bright conformists’ (sometimes referred to as ‘teacher pleasers’) rather than gifted and talented students.

*Training in the use of teacher nomination checklists is vital if this method of identification is to be effective.*

**Disadvantaged and culturally diverse populations**

Identification procedures which are used for the majority of gifted and talented students may not be suitable for some culturally diverse populations. Different methods of identification may be needed for students from culturally diverse, low socio-economic status or Indigenous backgrounds.

These gifted students are not lacking in ability but their ability may be masked by negative environmental or intrapersonal catalysts. Because of this, their giftedness may not be evident in the identification process.

Teacher nomination of students from disadvantaged backgrounds or culturally diverse populations is most effective when the teachers have training in gifted education and experience with students from these backgrounds.

Finally, teacher nomination for all students will be most effective when teachers have had inservice or training in the identification of gifted students. You will feel more confident in identifying gifted students in your class or school when you have completed the six Modules over the course of this program.

**Conclusion on subjective measures**

The information collected in this initial phase of the identification process will then be used in conjunction with the objective measures. To conclude this section we offer for your consideration a further identification principle:

*Include, for further assessment, students you are not entirely sure about, rather than exclude them - and invite surprises.*
Think about the students in one of your classes. Using the knowledge you have developed from Module 1, choose three students who you think may be gifted (even if they have not yet become talented achievers).

Print out or photocopy three copies of the Teacher Nomination Form and write the names of these three students on the top.

Complete the checklist for each student by highlighting the behaviours you have observed.

Now consider other educators who may also contribute to the process. Write their names below:

Now interpret the checklist.

- Are more than four characteristics highlighted?
- Are there clusters of positive and negative characteristics?
- Is there any correlation with the information presented by other educators?
- Are there other teachers who perceive the student differently?
- Is the student a possible gifted underachiever?

Keep these teacher nomination checklists for use when collating the information gathered from the other objective and subjective measures.
Think about the students in one of your classes. Using the knowledge you have developed from Module 1, choose three students who you think may be gifted (even if they have not yet become talented achievers).

Print out or photocopy three copies of the Teacher Nomination Form and write the names of these three students on the top.

Complete the checklist for each student by highlighting the behaviours you have observed.

Share with the group, the names of the students you have identified, using the teacher nomination form.

- Are there any names recurring, among your group?
- Is a particular gender more represented in the negative behaviours column?
- Have you selected any students whom you had not considered gifted before you completed this Module?
- What do you think other teachers would say about the students you have identified?
- Compare your results across the faculties.
Objective identification measures can be used to identify gifted and talented students’ aptitude and achievement. Objective measures are tools such as standardised tests of potential or performance. Objective measures give teachers and counsellors a score, or a series of scores, which can be used to compare the students with others from their age group or cohort. These measures usually assess a variety of elements of cognitive processing or achievement, eg verbal reasoning or reading comprehension.

Different objective measures give us specific information about a student’s ability to achieve well in the school context. The measure may show you either a student’s potential to achieve or his current level of achievement.

A variety of objective measures exist and each measure assesses different aspects of a student’s ability to learn.

It is important to note that it is quite possible for a student to score at a level lower than her ability. However, it is almost impossible to achieve beyond one’s true ability on any test, if it is administered in the manner prescribed.

This means that a student’s test result may be an underestimation of his ability. However, if a student scores higher than you expected, it is your expectation that is likely to be at fault rather than the test score!
Psychometric assessment - IQ testing

Currently, one of the most effective measures of a student's potential to achieve academically in school is an independent psychometric assessment, commonly known as an IQ test (Assouline, 2003; Rogers, 2002). Such tests can only be administered by a registered psychologist such as your school counselor or guidance officer, or a private registered psychologist. The most commonly used IQ tests are the WISC-IV or the WISC-III and the Stanford-Binet-V. These tests should be available to your school counselor or guidance counselor. This type of test gives information about the student's ability to reason, compared with her age peers.

A high score on such a test shows that the student has the potential to achieve well at school. However, this does not guarantee that the student will be performing well in the school context. Remember Gagné's environmental and personological catalysts that can block the translation of this student's high ability - which is measured by the test - into high achievement.

IQ tests can be given to children from as young as three years of age - the Stanford-Binet-V has norms for children as young as two-and-a-half. However, testing a very young child usually results in a score that is an underestimation of the child's ability. This is because a young child will often become fatigued during the testing process. The test results are less likely to underestimate a child's ability if the test is done after the age of 5 or 6. The optimum age range for testing is between 5 and 13 years.

Some IQ tests are not as effective in identifying gifted students from some culturally diverse or significantly disadvantaged groups. Other identification tools are more effective with such students. (We will explain this further below and in Module 4 on Underachievement.)

The usefulness of IQ testing has sometimes been questioned by teachers who worry that IQ scores label children. However, the purpose of identification is not to label but to diagnose a student's level of functioning and her consequent educational needs, so that these needs can then be addressed through the provision of appropriate curriculum and program options. IQ tests are very useful tools because they can, and often do, reveal hidden potential. They can also assess students' levels of giftedness.

Aptitude testing

Aptitude tests measure a student's potential to perform well at school. Most aptitude tests can be given to more than one student at a time. These tests are less expensive and less time consuming than individual IQ tests administered by a psychologist. Examples of such tests are the OLSAT, The Henman-Nelson and the Kaufman. These tests are often used for entry into ability grouped classes or schools. Aptitude tests give us a good understanding of a student's reasoning potential, particularly in a verbal context, as the majority of these rely on good reading and comprehension skills.

Aptitude tests which are administered in a group format are less effective in identifying particular groups of students:

- students from disadvantaged backgrounds and/or culturally diverse groups,
- gifted students with English as their second language, and
- gifted students with learning difficulties.
Low aptitude test scores from students in these populations should be treated with caution because the scores may not be a true indication of their ability.

**Standardised achievement tests**

Standardised achievement tests measure a student’s performance or current level of achievement. This is usually in a specific learning or subject area. These tests compare students with other students who are in the same stage or grade. Examples of such tests include any state literacy or numeracy test that has been normed across the state, such as ELLA or SNAP in NSW. Other examples of standardised tests include Maths Olympiad or UNSW competition papers, the Progressive Attainment Matrices (PAT Maths, PAT English), the Neale Analysis of Reading and the Test of Reading Comprehension (TORCH).

There are many excellent achievement tests available through companies such as the Australian Council for Educational Research (ACER), who may be able to assist you regarding the availability and purchase of such tests. Your school may already have some of these tests available for use.

Each standardised achievement test has been designed to identify a different aspect of a student’s learning. When choosing a standardised achievement test it is important to understand the specific purpose of the test. For example, the NEALE Analysis of Reading measures the specific aspects of reading fluency and comprehension. It does not assess a student’s ability to write lengthy responses to text or to empathise with the main character of a book.

Standardised achievement tests only measure the performance level of a student in a particular subject area. They will not identify a student’s potential to achieve in that area and thus, some gifted underachievers may score poorly.

**Teacher-made tests and assessments**

Teacher-made tests and assessments can be effective identification tools for talented students who are motivated and performing well. These assessment tools can be used to compare students against their current cohort. Educators regularly use such assessments to determine students’ current level of achievement. However, these tools often have a low ceiling and are unlikely to show the true level of ability of some gifted students, if the test is designed only to show mastery of basic skills.

In secondary schools we often use such tests and assessments across whole Years, to compare students within that Year level. These assessments are useful for identifying gifted students who are demonstrating talent.

Such tests will not identify gifted underachievers and may not identify talented students who are not engaged by the assessment process.
Off-level testing

Off-level testing is used to identify the extent of a student’s knowledge or skill in an area of giftedness or talent. The purpose of such testing/assessment is to identify if the student has knowledge and/or skills that you would expect of a student in a higher Year level. The information gathered from such assessments can help influence the curriculum delivery and programs in which a student participates.

In the secondary years of schooling, assessments should be at least two to three years above current Year placement. For example, you could be using a School Certificate (Year 10) maths paper with a Year 8 student, or using an HSC (Year 12) paper with a student in Year 9.

Disadvantaged and culturally diverse populations

Gifted children are found in all cultural groups and at every level in society. However, students who come from backgrounds other than that of the dominant culture may be more difficult to identify using standard identification procedures. This is because students who come from disadvantaged or culturally diverse backgrounds may not perform well on standard objective assessments. It is well documented that Indigenous Australians, students from low socio-economic status groups and some ethnic populations often do not perform well on standardised objective measures. For this reason, educators should be cautious when interpreting these results. This is discussed in greater depth in Module 4.

If you believe the student is gifted, a guiding principle in using objective measures of identification is to believe the high scores but treat the average and low scores with caution.

The identification of gifted students from the populations noted above needs a flexible approach. Information needs to be gathered using a variety of tools which examine many facets of reasoning and expressions of giftedness. Such tools may include culture-fair standardised tests such as the Raven’s Standardised Progressive Matrices and the Goodenough-Harris Draw-a-Person Test. Other identification strategies which may be effective in such populations are authentic assessment, dynamic testing and identification through exposure to challenging teaching. Teachers need to be aware of the environmental and personal catalysts which may affect the expression of giftedness in these populations.

One way to identify underachievers from culturally diverse groups or disadvantaged populations is to use the emerging methodology of dynamic testing. This methodology represents a very promising alternative to traditional assessment in that it seeks to optimise the students’ cognitive performance, rather than simply measure it as it currently manifests itself.
Consider the case of 14-year-old Terry

Terry comes from a culturally diverse group. He asks interesting questions and can be challenging in class at times. Terry often points out when he feels that a teacher has been unjust to a fellow classmate or himself. He reads a lot, but often fails to submit assignments even in the subjects he says he enjoys.

Terry’s family rarely come to parent teacher night and there seems to be little support from home. He is often out late at night and comes to school tired.

Terry’s English teacher is impressed with the insightful points Terry makes in class when he is listening. She knows that Terry has not performed well on last year’s State literacy test and suggests that Terry be assessed using dynamic testing, as the system in which she works has just trained a number of counsellors in this process.

Dynamic testing

Dynamic testing seeks to optimise the student’s cognitive performance and begins where one-off assessments end. Dynamic testing usually follows a pre-test-intervention-posttest format where the intervention is designed to address factors that contribute to underachievement, for whatever is causing the underachievement in class will also be influencing any identification process. Students who perform well below their potential (ie underachieve) in the pre-test may improve considerably in the posttest if the intervention has been effective. Those who achieve to their potential at pre-test can improve only slightly.

Consider the cases of Julia and Amelia

Julia and Amelia both scored in the 45th percentile band in a dynamic assessment pre-test, a commonly used, relatively culture-fair measure of ability to learn. Following the intervention phase Julia scored in the 48th percentile band while Amelia had advanced to the 87th percentile band, strongly suggesting that Amelia’s pre-test score represented a substantial underachievement.

If the pre-test alone had been used to assess Amelia’s potential she would have been wrongly assumed to be an ‘average’ student and thus would have become an ‘invisible’ gifted underachiever.
The Raven’s Standard Progressive Matrices (RSPM) is a non-verbal test of a child’s underlying ability to learn. The RSPM is considered to be relatively culture-fair, mainly because it does not require any literacy or specific language skill and is free of culture-specific items. Consequently, the RSPM has been recommended by some as a suitable tool to identify children from culturally diverse backgrounds. However, recent research (Chaffey, Bailey & Vine, 2003; Lidz & Macrine, 2001) suggests that non-verbal assessment may be only marginally better than other assessment methods for some culturally diverse populations. The reason is simple: the factors contributing to underachievement for these students are many and complex, with language being only one.

So ... which objective and subjective measures should I choose?

As there are so many different types available, it is clearer to analyse these in a chart format.
# Chart summary of objective and subjective testing

<table>
<thead>
<tr>
<th>Identification measure/tool</th>
<th>What the tool measures</th>
<th>Advantages</th>
<th>Disadvantages</th>
<th>Identifies gifts or talents?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual IQ test</strong></td>
<td>Reasoning ability for school-based learning, compared to age peers</td>
<td>Individual administration means test anxiety can be alleviated Standardised Measures verbal and non-verbal reasoning No prior knowledge required</td>
<td>Does not measure creativity Less effective for some culturally diverse or disadvantaged groups, especially Indigenous groups</td>
<td>Objective identification tool for giftedness</td>
</tr>
<tr>
<td>such as WISC-IV, Stanford Binet-V</td>
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<tr>
<td><strong>Group aptitude tests</strong></td>
<td>Assesses potential for school success Compares student with age peers Standardised</td>
<td>Less expensive than individual IQ tests</td>
<td>Does not allow for test anxiety Measures verbal reasoning more accurately than non-verbal reasoning Less effective for all culturally diverse students, especially Indigenous groups</td>
<td>Objective identification tool for giftedness</td>
</tr>
<tr>
<td>OLSAT, K-BIT, Kaufman Assessment Battery for Children General Ability tests-2 Woodcock-Johnson III Tests of Cognitive Abilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Intelligence tests teachers can administer</strong></td>
<td>Reasoning ability for school-type learning Compares student with age peers Standardised</td>
<td>Less expensive than individual IQ tests</td>
<td>Less comprehensive than an independent IQ assessment Some have a low ceiling</td>
<td>Objective identification tool for giftedness</td>
</tr>
<tr>
<td>Slosson Intelligence test Peabody Picture Vocabulary test Goodenough-Harris Draw-a-Person test</td>
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<tr>
<td>Identification measure/tool</td>
<td>What the tool measures</td>
<td>Advantages</td>
<td>Disadvantages</td>
<td>Identifies gifts or talents?</td>
</tr>
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<tr>
<td><strong>Standardised achievement tests</strong></td>
<td>Tests school-based knowledge and skills</td>
<td>Identifies current level of achievement</td>
<td>Does not measure giftedness/potential</td>
<td>Objective identification tool for identifying talented students in specific areas of achievement such as mathematics, reading, comprehension and science reasoning.</td>
</tr>
<tr>
<td>State wide literacy tests eg ELLA, SNAP, Basic Skills</td>
<td>Compares learning achievement with grade level peers</td>
<td>Compulsory</td>
<td>Low ceiling</td>
<td>As above</td>
</tr>
<tr>
<td>Kaufman Test of Educational Achievement (ACER)</td>
<td>Tests academic skill level in mathematics, reading, writing and oral language.</td>
<td>Standardised test that is easy to administer</td>
<td>Group test</td>
<td>As above</td>
</tr>
<tr>
<td>Progressive Achievement Tests-reading, mathematics (ACER)</td>
<td>Measures a student’s current level of achievement in maths or reading</td>
<td>Standardised</td>
<td>Low ceiling and multiple choice</td>
<td>As above</td>
</tr>
<tr>
<td>Woodcock-Johnson III Tests of Achievement</td>
<td>Provides information about a student’s academic strengths and weaknesses</td>
<td>Standardised</td>
<td>May not be relevant to Australia</td>
<td>As above</td>
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<tr>
<td>Identification measure/tool</td>
<td>What the tool measures</td>
<td>Advantages</td>
<td>Disadvantages</td>
<td>Identifies gifts or talents?</td>
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<tr>
<td>Tests of Reading Comprehension—TORCH (ACER)</td>
<td>Identifies level of comprehension compared with a large normative sample</td>
<td>Standardised</td>
<td>Does not test ability, only level of reading Low ceiling</td>
<td>Objective identification tool for identifying talented students in specific areas of achievement such as mathematics, reading, comprehension and science reasoning.</td>
</tr>
<tr>
<td>Neale analysis of reading ability (ACER)</td>
<td>Identifies level of comprehension compared with a large normative sample</td>
<td>Standardised</td>
<td>Does not test potential</td>
<td>As above</td>
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<tr>
<td>Final year of school exams Competition papers eg UNSW Mathematics Competition</td>
<td>Tests knowledge and skills learnt in final years of school UNSW competition papers assess strengths and weaknesses</td>
<td>Large sample to compare students’ results Students who achieve high results are working above grade level</td>
<td>Costs to enter Multiple choice</td>
<td>As above</td>
</tr>
<tr>
<td>Teacher made tests/assessments</td>
<td>Identifies school-based learning attainment, knowledge and skills Identifies learning gain</td>
<td>Identifies learning gains and compares performance with academic cohort</td>
<td>Does not measure giftedness Low ceiling Does not identify all underachievers or students from some culturally diverse or disadvantaged backgrounds</td>
<td>Objective measure of academically talented students performing in the school context.</td>
</tr>
<tr>
<td>Identification measure/tool</td>
<td>What the tool measures</td>
<td>Advantages</td>
<td>Disadvantages</td>
<td>Identifies gifts or talents?</td>
</tr>
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</table>
| **Off-level/ Above-level tests** | Identifies knowledge and skills above current grade level | Lifts ceiling that may affect results on grade-appropriate tests  
May identify student performance above grade level  
May identify underachievers who perform better on challenging tasks | Culturally diverse students or students from disadvantaged backgrounds may not perform well or have the skills to achieve well on such tests | Objective identification tool for academically talented students |
| **Parent nomination** | Observed behaviours of the child from birth | May identify early milestones  
Provides anecdotal evidence  
Parent has observed child over the long term  
Provides a wider view of the child, beyond the school context | Not objective  
Parent may not have relevant information  
Parent may not be able to compare objectively | Subjective identification tool for identifying potential and/or performance |
| **Teacher nomination** | Observed behaviours of student in learning setting | Teacher sees student in different academic situations  
Teacher can compare student’s performance with that of others  
Teacher observes student in context other than the home | Teacher may make a judgement before using a checklist or identification support tool  
Teacher may disregard a student who displays largely negative characteristics | Subjective identification tool for identifying potential and/or performance |
How do we put all this together?

Here is a short case study. Consider what might be the recommended response to this scenario.

Hayden is a Year 8 student attending a large school in a capital city. He is restless in science classes and does not seem to focus on work he is given. Occasionally he submits work that is of a high quality but he performs inconsistently on the class tests and across the form assessments. He recently gained a Distinction in a science competition. Hayden’s mother has mentioned that he was gifted in primary school and attended a course in science for gifted students. She states that she does not know what has happened.

What identification process might be useful in this situation?

Recommended answer for ‘putting it together’ case study

What identification process might be useful in this situation?

The Gifted Education Coordinator asks Hayden’s mother and father to complete the Parent Nomination Form and asks Hayden’s teachers, in all his subjects, to also complete a Teacher Nomination Form. The Coordinator asks his mother for his primary school reports and organises to administer an above-level test in science. It is also useful to look at the standardised testing that was administered by the secondary school at the start of Hayden’s first year.

The identification process

Now that you have covered material on subjective and objective measures of identification, you may wonder where identification fits into the scheme of these Modules and the scheme of things in schools.

The following flow chart shows the direction that is taken in the process of identification.
Choose multiple measures - objective and subjective → Gather information and administer tests → Interpret information and results → Address underachievement (See Module 4) → Cater for students

Organise a program or provision (See Module 6) → Differentiate curriculum (See Module 5)

Ongoing process of identification (See Extension and Specialisation Levels)
Self Assessment

1. What is the purpose of identifying a gifted student?
   (a) To compare them with other students.
   (b) To provide appropriate programs and curriculum for the students.
   (c) To give feedback to parents.
   (d) To label the child gifted and talented.

2. When trying to identify gifted and talented students we should:
   (a) Use one objective measure, as these tools are not influenced by personal opinion and bias.
   (b) Use one subjective measure, as teachers and parents are the best people to identify gifted and talented students.
   (c) Use multiple measures, comprising a combination of objective and subjective measures, according to the definition of giftedness and talent and the program.
   (d) Use one objective and one subjective measure as this will allow for balance in the identification process.

3. Explain the difference between objective and subjective measures.

4. When would you use a subjective measure and when would you use an objective measure?

5. What might be the most effective identification process for the following students?

Read the two case studies and make recommendations for each of the given situations.

Read the two case studies and make recommendations for each of the given situations. Compare your conclusions with those of other members of your group and analyse any differences.

Then read the modelled responses that we have provided. Note that these are not intended to be exhaustive; you may have thought of other constructive suggestions.
George is a Year 8 student in an inner city school. He started off the year with enthusiasm but it is now Term 2 and he sometimes misbehaves in class. His written responses are of a poor quality, even though he asks sophisticated questions about topics that are of interest to him. He seems to be interested in maths and computing and the teachers of these two subjects have fewer behaviour problems than do his other teachers. Many of his teachers report that George often disrupts other students and sidetracks class discussions according to his own agenda.

Outside school George reads well beyond his years but puts in little effort when reading his English novels. When the school contacted George’s parents, they were surprised that he was not performing well and shocked that he was misbehaving in class. George’s mother said she thought he was clever, that he read a lot at home and constantly fiddled with the computer. George’s father thought all boys were good on computers.

What tools would be most effective in the identification process for George?

Shoshanna is an Indigenous student in Year 8 who asks insightful questions in her English class. Often her work is incomplete but she always performs at a high level in class discussions. You collect the results from the state-based literacy and numeracy testing and discover that Shoshanna has performed poorly on these tests. Other teachers in the staffroom tell similar stories about the glimpses of ability they observe in Shoshanna.

What identification tools would you employ with Shoshanna?

Jane attends a central school in a rural area. She performs quite well in class but does not always hand in work on time. This is due to the many after-school activities in which she participates. Jane is a keen debater and an excellent musician. She is heavily involved in every musical performance and production the school organises. Jane is on the SCR and has a high profile in the student life of the school.

Is Jane gifted? What tools might help us to identify whether Jane is a talented student who is already working at her peak or whether she is gifted but not yet talented and filling in her time to prevent boredom?
Phil and Juliet are twins who are in their first Year at a secondary boarding school. They live on a large farm and are expected to help out once they are home from school. Phil is finding moving away from his parents difficult and whilst he was achieving highly at his old school, he is currently performing poorly. On the other hand, Juliet is performing at the top of her class and doing well socially.

The teachers at the school are accustomed to students finding the first term of boarding school challenging. However, it is now Term 3 and Phil is still finding things difficult. Phil’s tutor teacher has heard comments in the staffroom by other teachers who think Phil is much less capable than his sister. Phil’s tutor teacher feels that Phil is bright but he is not sure if he is as bright as his twin.

What could Phil’s tutor teacher do to identify whether Phil is indeed gifted?
1. (b)

2. (c)

3. Subjective measures are judgements based on personal observations. Objective measures are those that produce comparable scores, eg from standardised tests, that indicate potential or performance relative to a large population of other students.

4. You should aim to use a combination of both subjective and objective measures in the identification process. Objective measures may confirm observations and judgements made when using subjective measures.

5. The following modelled responses have been provided for each case study.

**What tools would be most effective in the identification process for George?**

We should above-level test George in maths and computing. It may be beneficial to administer an IQ test and ask his teachers to complete a Teacher Nomination Form. It would be very interesting to analyse the positive and negative behaviours George demonstrates in different subjects. Are there different patterns of behaviour across different subjects? George’s parents should also complete a Parent Nomination Form. It would also be important to collect any results from performance-based testing.

**What identification tools would you employ with Shoshanna?**

Shoshanna should be assessed using dynamic testing as she has not performed well in the standardised literacy and numeracy testing completed by all students in her state. The presence during this testing of a respected adult community member is desirable, to help reduce Shoshanna’s anxiety by establishing trust in the assessment process. Ask Shoshanna’s teachers to each complete a Teacher Nomination Form to record anecdotally the glimpses of ability to which they refer.
Is Jane gifted? What tools might help us to identify whether Jane is a talented student who is already working at her peak or if Jane is gifted but not yet talented and is filling in her time to prevent boredom?

Jane’s teacher looks at her reports over the years to find out whether she was always so involved in extra-curricular activities. She asks Jane’s parents to complete a parent checklist of gifted behaviours. The school’s counsellor is too busy to IQ test Jane so her teacher assesses Jane using a standardised ability test that she is permitted to administer, such as the Slosson. She speaks to the music teacher and asks him to complete a Teacher Nomination Form. Other teachers are also approached to provide insight into Jane’s patterns of gifted behaviours.

What could Phil’s tutor teacher do to identify whether Phil is indeed gifted?

Phil’s tutor teacher contacts Phil’s parents and faxes them the Parent Nomination Form, which they complete and return. His mother attaches a note saying that Phil was anxious about attending boarding school and was very upset to be parted from his best friend, who is at a different boarding school.

The teacher also looks through Phil’s school reports from the previous year. Phil’s teacher asks other teachers to fill in a Teacher Nomination Form and also looks through the competition papers that the students in his Year have completed during the year. Phil’s teacher finds that Phil performs well on standardised tests and asks the psychologist to meet with Phil and administer an individual IQ test.
Questions for Reflection

Using the knowledge gained in this Module on Identification, think about which identification tools would be most useful in identifying gifted and talented students in your school.

- What are the identification tools available to you, in your school? (If you are unsure, you may wish to investigate this further.)
- Which of these tools might be best suited to identifying the gifted students in your class(es)?

Using the knowledge gained in this Module on Identification, think about which identification tools would be most useful in identifying gifted and talented students in your school.

In your group, brainstorm and discuss which identification tools are available to you, in your school. Using butchers’ paper or a table, classify these identification tools into the two categories of objective and subjective measures.

Think about the students you teach. Which of these identification tools might be best suited to identifying the gifted students in your class(es)?

Divide into groups, such as by stage. Using the knowledge gained in this Module on Identification, think about which tools might support you in identifying gifted and talented students in your stage.

Using butchers’ paper or a table, classify these identification tools into the two categories of objective and subjective measures.

Each small group is encouraged to provide feedback to the rest of the staff, to create a whole school perspective on the identification tools available within the school.

After your small group or whole staff feedback session, use a table to collate the information presented by each stage.

Analyse the results and identify any areas of need, in either subjective or objective identification tools, or both.

Evaluate the identification tools required to support staff in the identification process. From this exercise, what identification tools do your staff have and what do they need?
Resources

References


Frasier, M. M. (1989). Poor culturally diverse students can be gifted, too!. Educational Leadership, 46 (6).


Websites
http://www.hoagiesgifted.org/identification.htm
http://ericec.org/digests/e644.html
Psychological and Educational Assessment of Gifted Children

SUSAN G. ASSOULINE, The University of Iowa

An assessment is a data-gathering process designed to help answer questions and make decisions. Many assume that assessment and testing are synonymous; however, testing is but one of four components of an educational and/or psychological assessment. The four components are (a) standardized tests, (b) interviews, (c) structured or unstructured observations, and (d) informal procedures (Satir, 2001). As components of a comprehensive assessment, intervisibility of observations, and informal procedures will be briefly addressed, but the emphasis and purpose of this chapter is to highlight and confirm testing, and standardized testing in particular, as the primary component of an assessment of a gifted student.

It is important for the reader to know what I mean by test. The simple response is that a test is a sample of behavior. However, a more complex answer lies in the pages that follow.

Anastasi (1988) defined psychological tests as, "like other tests in science, insofar as observations are made on a small but carefully chosen sample of an individual's behavior" (p. 24). She described the function of psychological tests as the "measure of differences between individuals or between the reactions of the same individual on different occasions" (p. 3). In other words, psychological tests measure individual differences in samples of behavior. The behaviors being measured may be sampled from broad domains, such as intelligence or personality.

Educational tests are also measures of samples of behavior, but, as defined by Anastasi, "have been specifically developed for use in educational contexts" (1988, p. 411). Because the distinction between psychological and educational tests is not always clear, the term psychological test has come to mean that the information used will include results from psychological as well as educational tests.

Many adjectives have been placed in front of the word test. For example, authentic, criterion-referenced, standardized, or norm-referenced. Criterion-referenced tests differ in significant ways from norm-referenced or standardized tests. Criterion-referenced tests (e.g., spelling tests) are designed to yield information that suggests an individual's degree of competency or mastery of a pre-established level of performance or criteria. Criterion-referenced tests are an example of the informal component of an assessment. The information from a criterion-referenced test can be helpful in determining curriculum.

An authentic assessment analyzes a student's work. Authentic assessments are especially subjective in nature. Often, the student's work, as well as the analysis of the work, is kept in a portfolio or folder, and sometimes an authentic assessment is called a portfolio assessment. Although the adjective authentic implies that this form of assessment is more valid than a standardized or norm-referenced test, that is not the case. Authentic assessments also represent the informal component of an assessment and can be rich with information about a learner.

Norm-referenced tests are developed so that a score can be compared to a representative group of individuals referred to as a normative sample. In order for the comparison to be valid, a norm-referenced test must be administered under the same (i.e., standardized) conditions for everybody. In this chapter, the terms norm-referenced and standardized are used interchangeably. Both large-group administered tests of achievement, such as the Iowa Tests of Basic Skills (ITBS), and individually administered intelligence tests are examples of norm-referenced or standardized tests.

Norm-referenced or standardized tests are perpetually criticized. Wiggins (1993), for example, criticizes testing with the assertion that:

Students are tested not on the way they use, extend, or criticize "knowledge" but on their ability to generate a superficially correct response on cue. They are allowed one attempt at a test that they know nothing about until they begin taking it. For their efforts, they receive—and are judged by—a single numerical score that tells them little about their current level of progress and gives them no help in improving (p. 2).

Similar attacks are found in a variety of publications, including professional educational publications such as Phi Delta Kappan. For example, in the September 2001 issue, Wasserman laments that both the practice of standardized testing as well as criticisms of standardized testing have remained consistent throughout the latter half of the twentieth century, and argues that we should be suspicious of the motives of those advocating standardized testing. Wasserman asserts that educators should omit testing from the assessment process and revert to, "the use of informal, evaluative observations by teachers," even though these observations may be "flawed . . . subjective . . . and it's true that teachers' judgments about students' performance could be wrong, misguided, or biased" (p. 36).

In this chapter, I propose that the responsible educator should ignore Wiggins' and Wasserman's advice and (a) recognize that standardized tests can be extremely useful in understanding the learning needs of a gifted student, and (b) advocate for the synthesis of information from standardized tests as well as informal assessment procedures to develop programs for gifted students.

The first part of this chapter provides the reader with an appreciation of standardized testing through the presentation of a brief history of norm-referenced testing, theories of intelligence, and giftedness. The second part presents two case studies and discusses testing issues as they relate to the field of gifted education. The case studies demonstrate clearly the value of information from standardized testing for making programming and placement decisions about gifted students. The chapter concludes with a list of "consumer guidelines" that summarize important issues when assessing gifted children.

How Has the History of Testing Influenced Today's Practices in Gifted Education?

In 1869 Sir Francis Galton published Hereditary Genius, which established the link between the terms intelligence and genius. Lewis Terman published in 1916 the U.S. version of Binet and Simon's individual intelligence test. Terman called his version of Binet and Simon's test the Stanford-Binet Intelligence Scale and, in 1922, used this scale to launch a study of 1,538 gifted children. The results of Terman's study were published in a series entitled The Genetic Studies of Genius, the first volume of which was published in 1925 (Terman, 1925). In Terman's work, we see the shift in terminology from genius to gifted (Feldhusen & Jarwan, 1993). Also, through Terman's work we see the forging of the strong link between intelligence testing and gifted.

Terman's extensive longitudinal studies established the foundation for identifying gifted students on the basis of intellectual potential as measured by individualized intelligence tests. However, Terman was sensitive to the limitations of measuring "intelligence," and early in the days of developing the Stanford-Binet Terman cautioned test users:

We must guard against defining intelligence solely in terms of ability to pass the tests of a given intelligence scale. It should go without saying that no existing scale is capable of adequately measuring the ability to deal with all possible kinds of material on all intelligence levels (Terman, 1925, p. 131).

Terman's precautionary statements were prescient to the theoretical work dominating the last quarter of the 20th century. During the twentieth century, the conceptualization of intelligence evolved from a single point of view (i.e., Terman's Stanford-Binet) into a complex perspective with several different orientations, three of which are described below: psychometric, cognitive modifiability, and information processing. Each orientation has influenced educational practice; at the same time, educational practice has influenced our views about the usefulness of intelligence tests.

The oldest and most research-based tradition of measuring intelligence is the psychometric approach (McGrew & Flanagan, 1998). Psychometric is defined as the quantitative measure of psychological traits or attributes (Satir, 2001). The psychometric
approach has resulted in thousands of tests; according to the 1999 edition of Tests in Print, there were 3,099 commercially available tests. Each test is concerned with measurement issues of reliability and validity. Reliability refers to the consistency and stability (reproducibility) of scores earned by test-takers. Validity is a more generic concept, but a brief definition of validity refers to its appropriateness to the domain being measured. (See Anastasi, 1982, or Hambleton, Brown, & Bryan, 1992, for more detailed explanations of reliability and validity.)

The psychometric approach to testing dominates the present-day educational system, and with good reason, as the information from norm-referenced testing (i.e., tests that provide information relative to others) is tremendously useful in both placement and programming decisions. The psychometric approach continues to evolve; some types of psychometric testing, for example, Galton's measurement of sensory discrimination abilities as another way of measuring intelligence, are now extinct. Other types of psychometric tests have evolved, for example, individualized intelligence tests; and their evolution is complemented (not replaced) by the cognitive modifiability and information-processing approach.

According to the dualistic school of thought, there are two principal functions within an environment that can be represented by an intensive or dynamic process of testing (as opposed to the more static nature of the psychometric approach) and champion cognitive modifiability theories of intelligence. McGrew and Flanagan (1998) associate Cognitive Modifiability theories with Vygotsky's zone of proximal development (ZPD). ZPD is defined as the difference between a person's level of performance in isolation and one's performance when mediated by the mind's active guidance, instruction, and suggestions by another individual (p. 150). Dynamic assessments evolve from cognitive modifiability theory and, by their nature, dynamic assessments correspond to the gifted educator's vision of diagnosis, resulting in a better understanding of gifted children's learning problems and, by matching their needs, an appropriate prescription for instruction.

The information-processing approach to intelligence is characterized by analyses of how information is received and mentally operated upon during problem solving and everyday tasks. Information processing is still relatively new, and it entered the psychological scene in the 1960s. Naglieri and Kaufman (2001) refer to tests that have been developed from the information-processing tradition as a new breed of instruments that provide a cogently-based alternative to traditional IQ tests.

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<tr>
<th>Table 10.1 Twentieth Century Timeline of Cognitive and Educational Assessment</th>
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(continued)
Table 10.2 1972 and 1993 Federal Definitions of Gifted and Talented

Part A: 1972 Federal Definition (Public Law 91-230, section 806)
Gifted and talented children are those identified by professionally qualified persons, who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society. Children capable of high performance include those who have demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:

1. General intellectual ability
2. Specific academic aptitude
3. Creative or productive thinking
4. Leadership ability
5. Visual and performing arts
6. Psychomotor ability

It can be assumed that utilization of these criteria for identification of the gifted and talented will encompass a minimum of 3 to 5% of the school population.

Part B: 1993 National Excellence Report Definition (Based on the National Gifted Education Act)
Children and youth with outstanding talent perform or who show the potential for performing at remarkably high levels of accomplishment when compared with others of the same age, experience, or environment. These children and youth exhibit high performance capability in intellectual, creative, and/or artistic areas, possess an unusual leadership capacity, or excel in specific academic fields. They require services or activities not ordinarily provided by schools.

Outstanding talents are present in children and youth from all cultural groups, across all economic strata, and in all areas of human endeavor.

*This was later removed.*

Two Case Studies

The two separate cases in Figures 10.1 and 10.2 demonstrate the usefulness of tests as part of the assessment process for gifted placement and programming. Figure 10.1 is a report of an assessment of Fred, an extremely able student. At the time of the report, Fred was placed in first grade in accordance with his age. However, as noted throughout the report, the first grade curriculum was so underchallenging that Fred was very frustrated, and his parents requested a grade-skipping from first to seventh grade. Parents and school officials were much intragrade in their positions and were ready to go to court for a placement ruling.

Throughout the report, there is a School Psychologist's Perspective of the Assessment (SPPA), which details the motivation for which tests were selected as well as the interpretation of the results. The purpose of reproducing the assessment report and the SPA is not to recommend specific tests, but to demonstrate how the tests "saved the school day" for this very gifted student.

For Fred, both the immediate as well as the long-term indicators of success were extremely positive. Six months after the results from the psychological assessment were used to accelerate Fred from first grade to a third-grade class, the unanimous conclusion was that the placement and the program were tremendously successful. The school personnel gained a new appreciation of Fred's ability and achievement, and the discussions about Fred opened up new opportunities for other gifted students.

Fred entered Purdue University at the age of eleven. He graduated from Purdue with a Doctor of Pharmacy degree at the age of 17, and enrolled in a Ph.D. program at Rockefeller University in New York.

Fred's case is unique, but not unique. An assessment of a gifted child must go beyond the administration of an intelligence test (a measure of general school ability), and should include measures of achievement, as well as other components of an assessment: interviews, structured and unstructured observations, and informal procedures. In some cases, the assessment should be extended beyond placement and should provide information that can assist in educational programming decisions. The application of assessment information for both placement and programming is demonstrated in two case studies (see Figures 10.1 and 10.2).

What Is the Role of Assessment in Whole-Grade Acceleration Decisions?

Despite the unequivocal evidence (DeHaan & Havighorst, 1961; Gallagher, 1998; Kulik & Kulik, 1984) supporting whole-grade acceleration as a programming option for gifted students, acceleration— or grade-skipping—remains a contentious issue.1 Prior to the publication of guidelines for grade advancement (Feldhusen, Proctor, & Black, 1980), most decisions concerning grade acceleration were based upon the selective biases of a school administrator. In some instances, decisions about acceleration are precluded by a district's exam policy against acceleration. The Feldhusen et al. article was helpful to many gifted educators and parents of gifted students who found themselves in the role of advocate for acceleration without the tools to advocate effectively.

1 See Chapter 21 by Kulik.
The Connie Belin & Jacqueline N. Blank International Center for Gifted Education and Talent Development

STUDENT: Fred D.
BIRTHDATE: April 11
AGE: 6 years, 7 months
REPORT DATE: December 1
EVALUATION DATE: November 12-14
SCHOOL PSYCHOLOGIST: Susan G. Assouline, Ed.S., Ph.D.

Reason for Referral:
The superintendent of schools recommended that Dr. D. refer his son, Fred, to the Belin-Blank Center for an evaluation of Fred’s academic achievement and for recommendations based upon that evaluation. At the time of the referral, Fred had been withdrawn from first grade in the local public school and was home-schooled.

Background Information and Observations:
Fred had been evaluated previously at the age of 5 years, 2 months, and 6 years, 5 months. Each of these evaluations included the administration of an individual intelligence test (Stanford-Binet: Fourth Edition and the Wechsler Intelligence Scale for Children—Revised), and each evaluation resulted in confirmation of Fred’s superior intellectual ability. The academic achievement tests administered during the previous evaluations were designed to provide a general indication of Fred’s achievement in reading, mathematics, and spelling. The tests administered at the age of 6 years, 1 month were the Wide Range Achievement Test—Revised (WRAT-R) and the Basic Achievement Skills Individual Screener. On these screening instruments, Fred performed at the seventh-grade level for reading, math, and spelling. The two prior assessments resulted in two reports, and the primary recommendation from each of these reports was that consideration be given to Fred’s program of study to determine the best way in which to meet his needs for academic stimulation and appropriate socialization with his schoolmates.

Reports from the previous evaluations indicated that Fred had excellent concentration and attention, and my observations of Fred’s ability to concentrate and attend to tasks verified the previously reported observations.

The statement concerning Fred’s ability to concentrate is an example of non-test data that was part of the assessment. This observation is used in the recommendations.

School Psychologist’s Perspective of the Assessment (SPPA):
A good assessment begins with a question to be answered. There are two questions concerning this student: (1) What is the appropriate grade placement? (2) What is the appropriate academic program?

SPPA: Two individual administrations of an intelligence test had been administered within a sixteen-month period, and each had yielded similar results. (At the time of this assessment, these were the most current results available.) There was no need for a third administration of an intelligence test.

However, the information from the previous administrations of measures of achievement was insufficient. The measures used were designed for screening; the information from them was inappropriate for a placement or program decision. This is obvious in the vague recommendations that were presented with the results of these previous assessments.

Fred is right-handed and has worn corrective lenses for four months.

Interpretation of Results:
Tests Used
Raven’s Progressive Matrices (RPM)
Stanford Diagnostic Reading Test (Green Level, Form A)
Standard Reading Inventory (SRI)
Stanford Diagnostic Mathematics Test (Green Level, Form A)
Sequential Tests of Educational Progress (STEP): Basic Concepts and Computation

One of the goals of the present evaluation was to determine Fred’s academic progress relative to his ability. Fred was asked to complete the Raven’s Progressive Matrices (RPM), an untimed non-verbal test of figurative reasoning. For this test, the individual is presented with 60 meaningless figures and is asked to discern the nature of the pattern for each figure and complete the relations. Fred correctly completed 41 out of 60 figures in 35 minutes and earned a score surpassing 99% of the 3-year-olds in the normative sample (the highest raw score earned by the 6-8-year-olds in the normative sample was 34). Thus, compared to the highest score earned by his age-mates in the normative sample, he was able to answer correctly 7 more items than the top-scoring individuals. This is a significant discrepancy from the highest score earned by his age-mates and confirms that Fred’s ability to form comparisons, reason by analogy, and organize spatial perceptions and systematically related wholes, as measured by this well-standardized instrument, is superior—enough when compared to children two years older than he.

SPPA: It was extremely important to determine how Fred’s abstract reasoning skills compared to his age-mates as well as to older children. The comparison to age-mates responded to educators’ concerns that there are “lots of bright children” in Fred’s class, and Fred’s academic needs are no different from theirs. The comparison to older children was equally important because abstract reasoning skills are part of an advanced curriculum that was under consideration.

In the parent interview, Dr. D. mentioned to the school psychologist that some educators believed that Fred was being pushed at home and that Fred was not ready for advanced material. During the presentation of the results to Fred’s educators, the school psychologist corrected this misconception. On the contrary, Fred was doing what he was able to do. His parents were responding to his academic needs and were requesting that the school find an optimal match between the curriculum and Fred’s ability and achievement.

Finding the optimal match between Fred’s ability and achievement was the reason for completing the
ing of an individualized educational plan that will provide an optimal match between Fred's ability and achievement. The two previous psychoeducational reports included a screening of spelling, reading, and mathematics. The present assessment of reading and mathematics was more diagnostic in nature.

**Reading:** The Green Level (Form A) of the Stanford Diagnostic Reading Test was administered. The Green Level is designed for students in grades 3, 4, and 5 and provides comparative scores for a sample of students in those grades. Fred worked quickly through the sub-tests. The final passages were to be read silently, but Fred subvocalized each of those passages, even though he worked quickly, he was not impulsive in his responses and he rechecked his answers to the questions.

When compared to fourth graders, Fred earned the percentile rankings reported below. Grade equivalent scores represent the typical performance of students in a specified grade. Because Fred is not a typical student, grade equivalents are not generally good comparative indicators; however, for the purpose of determining where to begin instruction, it was appropriate.

<table>
<thead>
<tr>
<th>Stanford Diagnostic Reading</th>
<th>Percentile Equivalent (Compared to fourth graders)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditory discrimination</td>
<td>92 (7.3)</td>
</tr>
<tr>
<td>Phonetic analysis</td>
<td>95 (&gt;12)</td>
</tr>
<tr>
<td>Structural analysis</td>
<td>83 (6.8)</td>
</tr>
<tr>
<td>Auditory analysis</td>
<td>51 (3.9)</td>
</tr>
<tr>
<td>Literal comprehension</td>
<td>74 (4.7)</td>
</tr>
<tr>
<td>Inferential comprehension</td>
<td>43 (3.7)</td>
</tr>
</tbody>
</table>

The "lowest" grade equivalent score (earned for inferential comprehension) was two grade levels above his present placement. The highest (earned for phonetic analysis) was beyond grade 12. Relatively speaking, Fred's auditory vocabulary, literal comprehension, and inferential comprehension, as measured by these subtests of the Stanford Diagnostic Reading Test, are not as well developed as his ability to discriminate auditorily, analyze the relationships between sounds and letters (phonetic analysis), and decode words through the analysis of word parts (structural analysis). In other words, the skills measured by the cognitively less demanding tasks of recognizing words and decoding them are more advanced than his understanding of common words and his general reading comprehension, especially his inferential comprehension.

The Standard Reading Inventory (SRI) was also administered, and the hypothesis that Fred's decoding skills were more developed than his comprehension skills was confirmed by the results of the SRI. He orally read the fourth- and fifth-grade passages with only a few minor pronunciation errors. It was noted that he read in a monotone. We did not go beyond the fourth- and fifth-grade passages, but he could probably read passages at a much higher grade level. However, it is unlikely that he could comprehend passages at the junior high grade levels. His silent reading speed was at the instructional level for grade 4, but not for grade 5.

**Instructional reading:** Fred reached frustration (correctly answered four out of ten comprehension questions for both silent and oral reading) at the fourth-grade level. He correctly answered four of the ten comprehension questions for the fifth-grade oral reading passage, but he answered only two of the ten comprehension questions correctly for the fifth-grade silent reading passage. He subvocalized while he was reading this passage.

Coupled with the information from the Stanford Diagnostic Reading Test, it appears that providing material at an advanced third- or fourth-grade level would be instructionally appropriate. Fred's ability to decode written words will continue to be far superior to his ability to comprehend for several more years. Fred could probably read a sixth- or seventh-grade social studies text, but his thinking is not yet sophisticated enough to comprehend the material fully and draw inferences. He needs time to allow underlying cognitive functions necessary for comprehending to develop and mature.

**Reading:** Fred needs only limited instruction in decoding or phonics. It is recommended that an instructional program emphasize the development of his comprehension skills. His overall comprehension is at an advanced third-grade or beginning fourth-grade level, and instruction with materials at
The Basic Concepts test designed for grades 6-9 was too difficult, as evidenced by his performance. Fred required all 40 minutes to answer 24 of the 50 questions, and he correctly answered only 14 questions, which placed him at the 8th percentile when compared to ninth graders. It was decided not to give him the middle school/junior high level of the Computation test. There was concern that he would be unnecessarily frustrated.

Therefore, the lower level of the STEP Basic Concepts and Computation tests, which were designed for grades 3-5, was administered. On this level of the Basic Concepts test, Fred correctly answered 38 out of 50 items in 35 minutes. When compared to second-semester fifth graders, this score is at the 83rd percentile. Eight of the 12 mixed items required manipulation of number concepts. On the Computation subtest, Fred correctly answered 53 out of 60 items in 28 minutes. This score is at the 90th percentile when compared to second-semester fifth graders.

**Recommendation for Mathematics:** The fact that Fred did so well on both of the tests designed for third through fifth graders indicates that he has relatively few, if any, gaps in his mathematics knowledge base. The biggest concern is that he not rush too quickly into pre-algebra and algebra because he needs time to allow for the development of the necessary cognitive structures that will foster success in more advanced mathematics such as algebra and geometry. Unlike many extremely precocious students, Fred has not developed sloppy habits. He did not do all of his work in his head; rather, he was careful to work out the problems on scratch paper. However, if he remains unchallenged, he will most likely develop poor work habits because performing computations mentally will be one of the only ways that he can mentally challenge himself.

**Summary and General Recommendations:**

Given Fred's superior performance on the two previously administered individual intelligence tests, as well as his superior performance on the RPM, one would predict that his academic achievement would be at least two grade levels above that of his age- or grade-mates. Indeed, Fred has fully utilized his superior academic ability and has achieved at a level commensurate with that ability. Fred has excellent concentration and attending skills and could easily

these levels would probably provide sufficient challenge. To continue developing his comprehension skills, Fred needs: (1) time for the underlying cognitive processes to mature, and (2) the opportunity to interact with students who are at a similar level of comprehension. These students will likely be found in higher grades. If Fred is accelerated into third or fourth grade, it would be appropriate to place him with the most advanced reading group.

Although his reading comprehension skills are relatively not as superior as his skills at decoding words, they are still superior when compared to those of his age- or grade-mates. The fact that his ability to comprehend ranges from two to four grade levels above his age-mates means he will need special arrangements for reading instruction. A whole-language approach to reading and writing instruction might foster Fred's progress in each of these areas. However, it would be important not to use a grade-level basal for whole-language instruction. Rather, Fred will need exposure to literature such as that provided by the Great Books Series.

**Mathematics:** Mathematics was the other curriculum area for which programming recommendations were needed. Three mathematics tests were administered: the first two to determine one that was appropriately difficult. The Green Level (Form A) of the Stanford Diagnostic Mathematics Test was the first test administered. The green level was developed for students in grades 4, 5, or 6. Fred finished the whole test in less than an hour (95 minutes is allowed). When compared to fifth graders, he earned the following percentiles for the three sub-tests:

<table>
<thead>
<tr>
<th>Stanford Diagnostic Mathematics Test</th>
<th>Percentile Rank Compared to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number system and numeration</td>
<td>86</td>
</tr>
<tr>
<td>Computation</td>
<td>85</td>
</tr>
<tr>
<td>Applications</td>
<td>94</td>
</tr>
</tbody>
</table>

The Stanford Diagnostic Mathematics Test did not appear to be sensitive enough to prescribe specific instruction. Therefore, the Basic Concepts and Computation tests of the Sequential Tests of Educational Progress (STEP) were administered.

SSPA:

For a more complete discussion of elementary students who are mathematically talented, see Jane and Johnny Love Math: Recognizing and Encouraging Mathematical Talent in Elementary Students (Łukowska & Assouline, 1992) and Developing Mathematical Talent: A Guide for Teachers and Parents of Gifted Students (Assouline & Łukowska-Shoplik, in press).
succeed in third- or fourth-grade material. For some tasks, such as decoding and basic computation, even fourth-grade material will be too easy for him.

The more routine school tasks (i.e., decoding of words and basic mathematics computation) are about as fully developed as can be expected for a 6 1/2-year-old child, and his ability to concentrate and attend has been well honed. Fred is at a critical point in his academic development. He will not lose his ability to learn, but if he is not sufficiently challenged he may lose his love for learning and will likely develop poor study habits.

- With regard to his general reading comprehension, placing him in an advanced third-, fourth-, or fifth-grade class seems most appropriate.
- Because his reading and math comprehension skills seem to be equally developed, it would make sense to consider whole-grade rather than subject-matter acceleration. For subjects such as science and social studies, Fred is probably ready to begin receiving instruction at a third-, fourth-, or even fifth-grade level. Pre-testing in these subject areas would be appropriate.

The school system is fortunate that Fred’s parents are able and willing to fit in any gaps in Fred’s instruction that might occur as a result of accelerating him by one or more grades. When students who have superb ability to learn are tutored at home, it is sometimes believed that the parents’ opinion is suspect because parents have invested so much in their child’s education. My sense of the situation is that Dr. D has tapped into his son’s strengths and has helped his son realize those strengths. Fred took the tests at the Bellin-Blank Center by himself and demonstrated extremely mature behavior. His behavior was more similar to that of a mature, extremely intelligent eight- or nine-year-old. His demeanor is like that of a well-behaved upper elementary student.

Fred has achieved through home schooling provided by his parents, but he needs the opportunity to interact with peers. He also needs exposure to extracurricular activities and contests, such as spelling bees, the Mathematical Olympiad for Elementary Students, and science projects that are typically assigned in the upper elementary grades. It determines an appropriate placement for Fred, attention should be paid to the most academically comfortable setting, that is, third, fourth, or fifth grade, as well as the most emotionally comfortable setting. The receiving teacher(s), parents, and administrators should discuss the most appropriate setting.

An understanding teacher who can adequately prepare his or her class to welcome a new student (who is younger, yet equally or more able), and who can communicate effectively with the parents is most important.

- I have recommended that Dr. and Mrs. D continue to provide enriching educational experiences for their son. However, it was suggested that there are options that might allow accelerated learning within the public school. For example, Fred would probably do well in exposed to one or two foreign languages, as well as a musical instrument. Activities in sports and social groups such as Cub Scouts are also encouraged. When he is older (probably around age 11 or 12), Fred would probably benefit from summer academic programs offered by universities such as the University of Iowa.
- Follow-up every three or four months with the Bellin-Blank Center Staff, to be initiated by Dr. and Mrs. D. is strongly recommended.

Figure 10.1 Psychological Interpretive Report.

Southern and Jones (1991) and Passow (1993) narrowed the debate about the advantages of acceleration forward. In 1993, Assouline, Gonzalez, and Lipkowski published the Iowa Acceleration Scale (IAS), a guidance tool designed to facilitate discussions and decisions about acceleration. In 1999 the manual for the Iowa Acceleration Scale (IAS) (Assouline, Gonzalez, Lipkowski, Shoplik, & Lipcomb, 1999) was published. The Iowa Acceleration Scale (IAS) and the accompanying manual were developed to guide educators in making recommendations about accelerating a student. Because no single definition exists as to what qualifies a student for whole-grade acceleration, one goal of the IAS is to provide exclusionary indicators of the appropriateness of acceleration as an educational option for students in kindergarten through eighth grade.

The indicators of the IAS include school-related issues, such as class attendance and the student’s attitude toward learning; developmental factors, such as body size and fine and gross motor coordination; interpersonal skills, which assess how effectively a student interacts with others; and attitude and support of the principal individuals involved in the student’s academic life. These issues represent the informal components of the IAS.

The IAS also requires information from tests of academic achievement and ability. With respect to academic ability, a formal measure of intelligence is one of the critical aspects underlying acceleration decisions using the IAS. Both group-administered and individually administered test scores can be used. A score representing superior intelligence is required before other indicators on the IAS can even be
Figure 10.2: The Iowa Acceleration Scale.

IAS Example: Jenny
The Iowa Acceleration Scale Form

Section I: General Information

Part A: Student Information

Student Name: Jenny
Student Address: 1234 Small Road
Student Phone Number: 123-4567
Present School: Presidential Elementary
School Address: 5678 Main Street

Date of IAS Completion (Today's Date)
Student's Date of Birth
Student's Chronological Age

Part B: Family Information

Father: Steve
Mother: Cindy

Does parent live with child? Yes X No Sometimes

Names of Siblings Gender Age School Grade Name of School

Part C: Child Study Team Information

Names/Position of Individuals Participating in Acceleration/Decison/Planning:
Principal: Mrs. S.
Parent (Guardian): Steve & Cindy
Present Teacher: Mrs. P.
Receiving Teacher: Mrs. R.
Other (e.g., Gifted Ed. Coordinator, School Counselor, School Psychologist): Mrs. E. (G&T Coordinator)

Sections I through V have been omitted from this figure. See the IAS manual for a detailed description of these Sections.

Section VI: Academic Ability and Achievement

Part A: Ability Test Results

NOTE: although an IQ score is not a perfect measure of ability, research has shown that individualized intelligence test scores are excellent predictors of academic success.

For each item below, circle the number to the right of the response that best describes the results of tests which the student has completed.

On an individualized intelligence test (name of test: WISC-III) administered within the last three years, the student's overall IQ score was:

Please circle one
Between one and two standard deviations above the mean (115-129) 1
Between two and three standard deviations above the mean (130-144) 2
Three or more standard deviations above the mean (145-above) 4

If a score is unavailable, an individualized IQ test, such as the WISC-III, Binet IV, or WJ Cognitive Ability Scale, should be administered and the results incorporated into this decision-making process about acceleration. (If the score is below 115, see Sections II, Critical Items.)

Comments or concerns: Verbal Score in Superior Range, Performance Score in High Average to Above Average Range. This is NOT a concern.

Part B: Achievement Test Results

Grade level achievement test administered within the last year:

Name of test: ITBS

Please indicate the type of test used: Individual Group X

Above-grade level achievement test administered within the last year (if available):

Name of test:

Please indicate the type of test used: Individual Group X

*Sections of the Iowa Acceleration Scale (IAS) have been reprinted with permission of Great Potential Press (formerly Gifted Psychology Press). This publication, or parts thereof, may not be reproduced in any form without written permission of Great Potential Press.*
Section X: Attitude and Support

9. Planning for Acceleration Prior to Completing the IAS Form

No prior planning or gathering of information has taken place or been shared regarding this student’s acceleration.
Limited staffing, information sharing, and planning have occurred regarding this student’s acceleration.
Extensive staffing, planning, and discussion have occurred regarding this student’s acceleration.

Comments or concerns: 

Section XI: Scale Subtotals, IAS Grand Total, and Guidelines

Is the Academic Ability and Achievement (AAA) Subtotal Score ≥90? Yes __ No ___
If AAA Subtotal is <10, do not consider whole-grade acceleration.

Academic Ability and Achievement Subtotal: 12 out of a possible 32 points
School and Academic Factors Subtotal: 18 out of a possible 22 points
Developmental Factors Subtotal: 6 out of a possible 9 points
Interpersonal Skills Subtotal: 14 out of a possible 16 points
Attitude and Support Subtotal: 8 out of a possible 11 points

Add the above five scale subtotals together to equal the IAS Grand Total:

IAS Acceleration Scale Grand Total: 55 of a possible 90 points

Guidelines for Interpreting the Iowa Acceleration Scale Grand Total:

70 to 90 total points: Student is an excellent candidate for whole-grade acceleration. Acceleration is recommended.
54 to 69 total points: Student is a good candidate for whole-grade acceleration. Acceleration is recommended.
43 to 53 total points: Student is a marginal candidate for whole-grade acceleration. There is no clear recommendation. Review materials closely and carefully consider alternatives.
42 or fewer total points: Whole-grade acceleration is not recommended. Consider single-subject acceleration, mentoring, enrichment, or other alternatives.
Analysis of Team Decision and Outcome

Jenny:
Current Grade: 3rd Grade, with acceleration in Reading and Language Arts
Proposed Grade for Acceleration: 5th Grade
IAS Score: 55 (Good Candidate for Whole-Grade Acceleration)

Overall, Jenny is a good candidate for acceleration into the 5th grade. One concern did suppress her score, and this was indicated in Section VIII, Item 2, Grade Placement Under Consideration. Jenny earned a zero on this item because acceleration at this point in time would result in a mid-year change in buildings—she would be moved from the elementary school to the junior high school. Because the acceleration is still recommended, however, a plan needs to be in place so that Jenny can make the necessary adjustments in the new environment. This plan includes specifically implementing some of the typical transition activities experienced by fourth graders.

Note: In reality, Jenny's acceleration took place several years ago. Because of this, we have been able to track her progress. At the beginning of the trial period, Jenny was treated much like a transfer student and was given special consideration regarding the change in her routine. In no time, though, her mother reported that Jenny had adapted to the new setting like "a fish to water." A critical factor to the success of this intervention was the receiving teacher's willingness and openness to having Jenny in her class. This set the tone for the rest of the class. Additionally, the receiving teacher was involved in the planning phase of the acceleration process, which eased some of Jenny's anxieties. It was clear from the beginning of the process that Jenny knew what she wanted and was willing to work with the teachers to assure that she was in a challenging setting.

Jenny was very satisfied with her school experience as a result of the acceleration. She was appropriately challenged, and her enthusiasm for school remained undiminished throughout high school and into college. All indicators continue to confirm that the acceleration was a successful educational intervention.

Jenny's Letter to the Principal

Dear Mrs. S,

I find that the work I'm being given is very discouraging because it's much too easy. Most of it I could do with ease and I have to wait for others to catch up. The grade I'd like to go to would be better college but since I can't have something more challenging, say for instance I could do any grade I want as long as I'm not in Presidential Elementary or Presidential Middle School. I love to write 5th Grade I was there but it was never enjoyable to go there and see what it was like. I don't care if I leave Presidential Elementary cause I really don't have anything really important or important friends that I'd miss.

Sincerely, Jenny

considered. As demonstrated in the sample case (see Figure 10.2), and in addition to the required information from an IQ test, the IAS asks for achievement results from both grade-level and above-grade-level testing. A student must have grade-level test results; and although above-grade-level testing is not required, it is strongly recommended. With the increase in participation in talent searches of both elementary and middle school students, above-grade-level test results are more readily available.

Figure 10.2 includes an example of items from an actual case in which the IAS was used to make a whole-grade acceleration decision. "Jenny" is a real student who is currently in her first year of college. Included in Figure 10.2 is a letter that is reproduced exactly as Jenny wrote it. In this letter, Jenny expressed her desire to be skipped into a higher grade. Her motivation and advanced language skills are apparent in this poignant letter. The absence of above-grade-level testing information should be noted. When Jenny's case was presented, the availability of above-grade-level testing through elementary talent searches was relatively limited, and Jenny's school district was not participating at that time. Nonetheless, the team's ultimate decision was that she be accelerated.

When is an Assessment Important for a Gifted Student?

Identification and Programming

The National Association for Gifted Children (1998) Pre-K—Grade 12 Gifted Program Standards include guidelines for guiding principles, two of which are relevant to a discussion about assessment. Principle 3 states that, "A student's assessment profile of individual strengths and needs must be developed to plan appropriate intervention." Exemplary standards for this principle state that "Individual assessment plans should be developed for all gifted learners who need gifted education. An assessment profile should reflect the gifted learner's interests, learning style, and educational needs." Principle 4 states that, "All student identification procedures and instruments must be based on current theory and research." The exemplary standards for this principle include: "Student assessment data should come from multiple sources and include multiple assessment methods. . . . Student assessment data should represent an appropriate balance of reliable and valid qualitative and quantitative measures."

Although these standards are well intentioned, they do not provide the typical educator with the great deal of guidance about specific steps to take. Educators need to be thoroughly informed before embarking on an assessment. However, only through an assessment will educators be able to provide students with a curriculum that is based upon the learner's needs.

The Twice-Exceptional Student

The twice-exceptional student is exceptional in at least two ways: (a) Giftedness is one of the exceptionalities, and (b) one or more disabilities, for example, a physical, learning, and/or emotional disability, represents the second exceptionality. Combining the terms gifted and learning disabled may seem to pose a conflict to some, especially to those who may still adhere to Terman's (1925) conclusions. Although Terman's work was important because it dispelled the myth of the sickly, socially awkward child and introduced the gifted child as an individual with superior intelligence, in good health, and socially well adjusted, these same conclusions masked our awareness that some gifted children also had physical, learning, or social-emotional exceptionalities that needed to be addressed.

Since the 1975 passage of PL 94-142, there is increased public awareness regarding the characteristics of all students with disabilities. Public awareness has grown to recognize that many students with disabilities are also gifted, and vice versa. For comprehensive discussions on students who are gifted and learning disabled, see Bronn and Mills (1997) and Cohen and Vaughn (1994). Kaufman and Castellano (2001) provide an excellent review of the gifted student with ADHD, and Neihart (2000) points out that gifted children with Asperger's Syndrome are under-identified because some of their behaviors are incorrectly attributed to learning disabilities.

For most students who are twice-exceptional, an IQ test is a critical first step to discovering their giftedness, but the analysis of the IQ test profile must go beyond the score to look at patterns of strengths and weaknesses, especially within the context of the newer theories of intelligence.

Which Tests Are Recommended for the Assessment of Gifted Students?

Assouline and Lappin-Shoplik (in press) have developed for educators and parents "Consumer Guidelines for Educational Assessments," which include:

1. The assessment guide guides the selection of tests and the development of recommendations. Parents should be

2. In the IAS manual, Jenny's case is reproducible in its entirety. Sections of Jenny's case have been reproduced in Figure 10.2 with permission of the publisher, Great Potential Press, formerly Gifted Psychology Press.

3. See Chapter 7 by Sternberg and Chapter 8 by von Krosigk, Ramirez-Font, and Gardner.
involved in formulating the assessment question.
2. Know what types of tests are appropriate and useful for obtaining the needed information. A general ability test can be helpful in predicting success in school, but won't give enough specific information about a child's specific aptitude, for example, mathematics, to determine placement in a mathematics class or programming within that class.
3. Confirm that the person conducting the assessment has appropriate training. A teacher who is familiar with the directions can administer some tests. Other tests require extensive training, and the person administering them usually has an advanced degree.
4. Test results should be reported in written form. This report should include the actual test scores, which should be presented within an educational context. A test score, by itself, is of little value.
5. Verify that the report will include several specific recommendations individualized to the child who was tested. A photocopied list of pre-published educational practices is not acceptable.
6. Reports should be completed and sent in a timely fashion, that is, within one month after the assessment has been completed. Parents should be notified of any delays.
7. Parents should know whether a test will be administered in a group or individually. If the test is individually administered, parents should know in advance whether the test is designed for electronic response, paper and pencil response, or whether the student will be observed.
8. Cost may be an issue for some parents. At one end of the cost continuum, testing might be done through the school district at no cost to parents. At the other extreme, some parents might pay several hundred dollars, especially for a thorough assessment that includes an individualized intelligence test.

**SUMMARY AND CONCLUSIONS**

This chapter highlighted the brief history of testing and its role in the educational lives of gifted children. Much of the chapter was a defense of testing as the primary way in which psychologists and educators obtain the information necessary for placement and programming. Although the general public, as well as some educators, sometimes criticize testing as an unnecessary educational practice, there is strong evidence that testing should continue to be an integral part of the education of all students, and gifted students in particular. The two case studies demonstrated the importance of a professional interpretation of the results from testing to the educational decision-making process.

**QUESTIONS FOR THOUGHT AND DISCUSSION**

1. What can an individualized intelligence test tell you about a student? How can one score from an IQ test be helpful in predicting success in school, but won't give enough specific information about a child's specific aptitude, for example, mathematics, to determine placement in a mathematics class or programming within that class?
2. According to Assemblee, testing is one of four components of an assessment. Why was testing described as the most important component? How do the other three components fit into an assessment?
3. Imagine that a school board member wants to eliminate testing from the gifted education program to save money. The person believes that testing should be replaced with a portfolio assessment. List five to seven points from this chapter that would be your response to this board member's recommendation.
4. Think of an elementary school teacher who needs additional training. How would testing fit into curriculum planning for that student?
5. Some gifted students also have a learning and/or social emotional disability. How can an assessment help educators and parents achieve a better understanding of such a student?

**REFERENCES**