

GIFTED AND TALENTED EDUCATION
PROFESSIONAL DEVELOPMENT PACKAGE FOR TEACHERS

SPECIALISATION

Module 6



Early Childhood
Primary
Secondary

Stan Bailey



Australian Government
Department of Education,
Science and Training

THE UNIVERSITY OF
NEW SOUTH WALES



GERRIC

Gifted Education Research, Resource and Information Centre

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Specialisation Level

Introduction

Welcome once again to the Advanced Training Program of the Australian Government Professional Development Package for Teachers in Gifted and Talented Education.

As with the Core and Extension Packages which you have completed earlier, we want to individualise the Program as much as possible to optimise its relevance and usefulness to you.

Initially you will select from Early Childhood, Primary or Secondary school context. For the purpose of this course we are defining early childhood as all pre-school or school years up to and including Year 2.

Additionally there is content differentiated by:

Role	Classroom Teacher 	Executive Staff 	Principal 
Location	Urban 	Rural 	
Mode	Self Study 	Small Group 	Whole Staff 

While using the package, you will be able to select content that is applicable to your context.

Thank you! You're now ready to proceed.

Module 1: Understanding Giftedness

The course has examined and analysed three influential models of giftedness, François Gagné's Differentiated Model of Giftedness and Talent, Joseph Renzulli's 'three-ring' model and Abraham Tannenbaum's 'sea-star' model. We looked at some of the ways in which gifted children and adolescents may differ from their age-peers in both their cognitive and their socio-affective development and, in particular, how intellectually/academically gifted students tend to differ in the ways they learn. In the Extension Module we revisited Betts and Neihart's six 'profiles' of gifted learners and discussed how different learning styles could help to explain some of the attitudes and behaviours of these students. We looked at levels of giftedness and the implications of this for program development.

Module 2: The Identification of Gifted Students

We have looked at the principles of effective identification in early childhood, in the primary school years and in adolescence. We examined the principles of reliability and validity and discussed how important these are in selecting identification tools. We discussed how using multiple criteria – a **range** of objective and subjective measures – rather than one test or checklist on its own, can provide a 'safety net' which will catch as many as possible of the gifted or talented students in your school. We have analysed the strengths and weaknesses of teacher, parent, peer and self-nomination and the use of IQ, aptitude and achievement testing and off-level testing. We have highlighted the use of dynamic testing to identify students from disadvantaged and culturally diverse populations. We analysed two different ways of synthesising the valuable data gathered from all these procedures to provide a useful identification matrix for your school.

Module 3: Social and Emotional Development of Gifted Students

This Module has highlighted ways in which intellectually or academically gifted children may differ from age-peers in their emotional maturity, their friendship conceptions, their feelings about their gifts and talents and even their hobbies and interests. We analysed possible outcomes of the 'forced-choice dilemma', for example 'dumbing down' or moderating one's achievements for peer acceptance. We also explored the five forms of 'over-excitability' and noted that students who react more intensely than their classmates to intellectual, emotional or physical stimuli can sometimes be misdiagnosed as having Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD). We looked at how motivation and optimism can influence achievement and we evaluated positive and negative aspects of perfectionism. We explored some issues in parenting gifted students, such as how to encourage task-oriented rather than performance-oriented self-expectations and the importance of building facilitative home-school partnerships. We explored a range of issues in self-esteem and noted that unrealistically inflated self-esteem can be moderated by the experience of working with other students as able as oneself.

Module 4: Understanding Underachievement in Gifted Students

We explored some of the causes of underachievement among gifted students. Boredom, learning disabilities, low teacher expectations and dysfunctional perfectionism were examined. Betts and Neihart's 'Profiles of the gifted and talented' were introduced as a useful framework to identify and understand underachievement. Dynamic Testing was proposed as an effective means of identifying 'invisible underachievers' from culturally diverse and low socio-economic groups. We noted that underachievement often arises from students' own beliefs that they are of low ability or little value and we suggested strategies through which teachers can identify and assist those students. We discussed the links between academic self-efficacy and students'

abilities to persevere in the face of difficulties and we examined some strategies that teachers can use to enhance students' self-efficacy through mastery experiences — including the provision of positive role models. We investigated key factors in underachievement in Australian Indigenous children such as the educational disadvantage experienced by involuntary minority status peoples, and the distrust of, and negative attitudes toward, education that can emerge from this. We affirmed the importance of allowing all underachievers to experience 'flow'.

Module 5: Curriculum Differentiation for Gifted Students

This Module introduced some procedures which teachers can use to differentiate the level, pace and complexity of curriculum delivery for gifted learners through modifying content, process, product and learning environment. We showed how the use of pre-testing, to assess what students already know, allows us to minimise unnecessary revision by compacting the curriculum. Bloom's Taxonomy and the Williams model of curriculum development provide useful structures through which teachers can develop an enriched and challenging curriculum for gifted students, while the Kaplan model provides an excellent scaffold for developing theme-based independent study or research projects. The Maker model provides a vehicle for developing extension activities through differentiating the content, process, product and learning environment and through providing rich tasks and 'real world' problem solving activities for gifted students. We examined some of the research supporting curriculum differentiation for gifted students and explored different ways in which we can evaluate the effectiveness of curriculum differentiation. We noted that different levels of giftedness require different curriculum differentiation strategies.

Module 6: Developing Programs and Provisions for Gifted Students

This Module explored some of the mythologies which have grown up around ability grouping and acceleration and introduced some of the research-based findings that support the use of these procedures for gifted and talented learners. The concept of effect size was introduced as a useful way of representing learning gains through different programs of acceleration and ability or achievement grouping. Several forms of grouping and acceleration were described and their academic outcomes reported. Practical hints were provided to maximise the effectiveness of these programs. The international guidelines on acceleration were introduced to enable teachers and parents to evaluate both a student's readiness for acceleration and which forms of acceleration might be most suitable. We examined both the possibilities and the pitfalls of using cooperative group learning with gifted students. We explored the possibilities of online and group mentoring and its particular advantages for gifted students in rural and remote areas. We explored issues in the development and management of individual education programs which can be extremely beneficial and which are particularly necessary for students of more than moderate levels of giftedness, students who have a learning disability or physical impairment, or indeed any gifted student who is significantly underachieving or at risk of becoming a chronic underachiever.

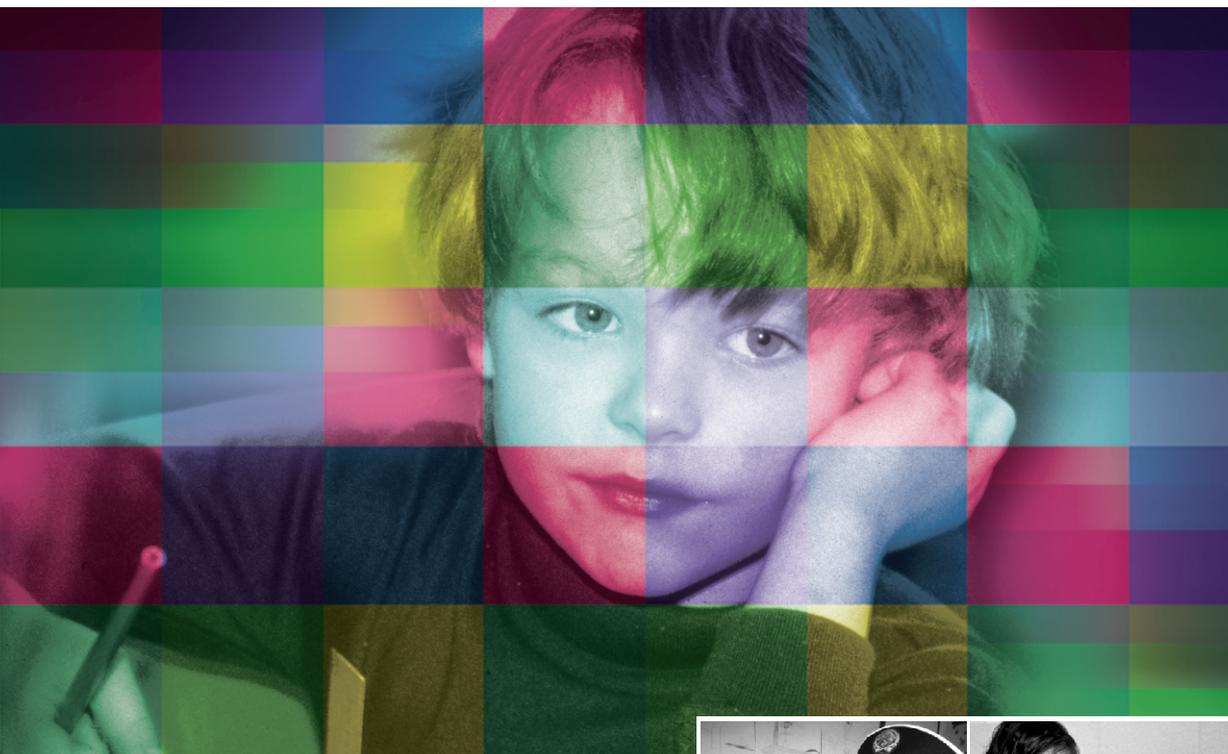
The Specialisation Level of the Professional Development Package builds on, and expands from, the Core and Extension Packages.

We have not provided pre-tests for the Specialisation Modules as we anticipate that, having progressed this far, you are enjoying the Professional Development Package and will be eager to work through the material that follows.

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SPECIALISATION

Module 6



Early Childhood



Stan Bailey

Module 6

Other Issues in Developing Programs and Provisions
for Gifted Students

Welcome to Specialisation Module 6, the final Module for this Professional Development Course. In it we will discuss other aspects of acceleration and grouping, including cultural considerations, radical acceleration, and early entry to tertiary education. The important issue of planning a whole-school approach to addressing the needs of the gifted will also be analysed, as will the support role that can be played by a school's gifted and talented education coordinator.

Stan Bailey

Specialisation Module 6: Early Childhood

Other Issues in Developing Programs and Provisions for Gifted Students

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Outcomes

At the completion of this Module you will:

- understand the potential positives in grouping together underachieving students or students from special populations.
- be aware of principles to guide the development of a whole-school approach to identification and provision, including grouping and acceleration.
- have a fuller understanding of specific issues to consider when deciding whether and how to implement acceleration, including radical acceleration of the highly gifted and early entry to tertiary education.

Part 1

Age / gender / cultural issues associated with grouping and acceleration

Boys and early entry to school

Concern about developmental differences (eg social and emotional maturity) between boys and girls have led to the suggestions that early entry to school may be more appropriate for girls than for boys.

However, we should keep in mind Tannenbaum's (1983) finding that social/emotional development is more highly correlated with mental age than with chronological age, so gifted four-and-a-half-year-old boys may well be ready to mix with older children in a Kindergarten/Reception class.

There are reports (eg Southern & Ferguson, 1996) that young gifted boys are more likely than girls to exhibit frustration with written work and to be less willing to write. However, this is not a reason for denying a gifted student access to early entry, if he shows signs of readiness in other ways (such as advanced vocabulary and interests, early reading, frustration with age peers in preschool).

Common advice, eg by Cornell et al (1991, p. 79), is that: 'Early admission should probably be restricted to children who are extremely advanced relative to their chronological age in both academic and socioemotional domains.'

However, the possibility needs to be explored that gifted children from disadvantaged backgrounds — both boys and girls — may benefit from early entry if it provides them with greater intellectual stimulation, challenge and support.

Examples of Australian policies on early entry may be found at:

<http://web.ceo.adl.catholic.edu.au/SACCS/Policies/EarlyEntry.pdf>

Cultural considerations

As we discussed in the various levels of Module 4, children from cultures that are minorities within any society are likely to be underrepresented in special provisions for the gifted and talented, and that is even more likely if they are from low-income families (Frasier, 1993; Tomlinson, Callahan & Lelli, 1997; Ford, Moore & Milner, 2005). Reasons for this include the use of inappropriate (ie culturally insensitive) methods of identification and the students' inability or unwillingness to respond positively to teaching that does not closely match their cultural values or learning styles.

As we reported in Core Module 6, one secondary teacher (and G&T coordinator) arranged a weekly meeting with the small group of grade-skipped students in his Sydney school to enable them to discuss — with each other and with him — their progress and any matters of concern. There may be value in other schools making similar arrangements for their culturally diverse gifted students, to encourage them to act as a support group for each other and to provide regular access to a teacher who is seen to be 'on their side'. Ford (1996, p. 81) cites an example in the USA where a teacher organised a midday discussion group for gifted students which addressed 'stress, personality styles, testing, recognizing strengths and weaknesses, family conflicts, career concerns, and relationships'. Butler-Por (1994, p. 222) states that this demonstration of teacher support is 'most important for creating emotional security, which constitutes an essential condition for overcoming underachievement'.

If such regular group 'counselling' meetings of gifted students from culturally diverse backgrounds are helpful their organisation ought not be left to the initiative of individual teachers (whose departure from the school may mean that the support ceases) but should be built into your whole-school plan.

Ability grouping vs mentoring

Members of some culturally diverse groups may consider mentoring to be more compatible with their cultural beliefs and values than selective classes or schools. It has been pointed out (Peterson, 1999, p. 374) that 'the values of nonmainstream groups apparently often do not encourage individual, competitive, conspicuous achievement' — hence the members of such groups may either be overlooked for, or may eschew, selective settings.

However, one research study in NSW provides evidence that this is not necessarily the case. Taylor (Vasilevska, 2001, p. 27) interviewed students, their parents and their teachers from 15 disadvantaged government schools, finding that:

'the perception that parents from Aboriginal and Torres Strait Islander, Arabic speaking and Pacific Islander background did not value ability grouping provisions such as selective high schools and OC classes [ie full-time upper primary classes for the gifted] could not be substantiated.'

Hence, teachers should avoid basing on stereotypes or unjustified preconceptions their decisions about what forms of provision are most appropriate for, and acceptable to, culturally diverse gifted students. As we stressed in Specialisation Module 4, close consultation and open communication with your school's parents and wider community are important components of your planning process if it is to be culturally sensitive and inclusive.

That said, some cultures have traditionally had an approach similar to mentoring as their way of dealing with highly able children — eg 'traditional Maori methods of education, where children who displayed ability and interest in a particular field were often taken under the wing of a tohunga or expert and given private tuition' (Taylor, 1996, p. 401) — so it warrants particular consideration as a strategy, whatever else you may include in your whole-school plan.

One way of providing culturally different students with emotional as well as academic support is to provide them with mentors and role models from within their own culture who are 'confident, personally secure, and academically and professionally successful' (Ford, 1995, p. xiv).

In the case of gifted students from culturally different backgrounds, a mentor from within the same cultural group can be a role model for dealing with the challenges specific to being a member of that subculture within a culturally diverse society. In some instances this may lead to raised aspirations for school and beyond, as well as coping with any negative pressures to underachieve for peer affiliation reasons. Davis and Rimm (1998, p. 304) assert that 'all other treatments for underachievement dim in importance compared with strong identification with an achieving model'.

While a common cultural identity may add an extra dimension of empathy to a mentoring relationship it is not always essential, so long as the mentor is sensitive to and respectful of the culture of his or her 'apprentice'. The crucial thing is their shared passion for an activity or domain of learning. Delisle (1999, p. 242) observes that:

'Mentor relationships tend to be especially effective ... for economically disadvantaged gifted youth, who may need the opportunity to see possibilities that exist outside of the limited domain of their neighborhoods'

Because of its individual focus, in most cases, mentoring has the potential to provide the gifted student with fast-paced learning, so can become a form of acceleration — and perhaps an informal 'trial' for other types of acceleration — for the mentee.



An Australian research study on acceleration

One noteworthy study of acceleration in the Australian context is that of Kim Jaggars (2000), on 'Student perceptions of subject acceleration in NSW secondary schools'. His research sample comprised 1,283 students, with an average age of 14.5 and almost equal numbers of boys and girls. His findings included:

- The students felt that the teachers' reception of their acceleration was 'grudging' in only 2% of cases — an encouraging indication of growing recognition of the merit of this form of acceleration.
- A sizeable proportion of the students acknowledged that they had fears about the acceleration prior to its commencement — 34% of the boys and 57% of the girls. However, only 21% of the boys and 35% of the girls reported that what they had fears about had actually occurred.
- When asked whether the subject acceleration had led to teasing by peers a somewhat reassuring 86% said no — though there is no cause for complacency here, given that 14% answered in the affirmative.
- Very few of the students said that they would have preferred to have stayed with their age peers — a mere 7% of a subgroup of 291 asked about this.
- There was found to be little gender difference in the students' self-esteem.
- Jaggars concluded that these gifted students' social-emotional development was not adversely affected by their subject acceleration — in line with similar evidence from North America.

Grouping together underachieving gifted students or gifted students from special populations

As Graham Chaffey points out, it should not be assumed that newly identified 'invisible' gifted underachievers can immediately be placed into selective settings (such as ability grouped classes) or other 'standard' forms of provision for the gifted.

If the reasons for their previous underachievement include low self-efficacy, metacognitive inefficiencies and gaps in their knowledge base there is an immediate need for these to be addressed specifically. Where numbers permit, this is often best done by grouping together such students for concentrated, focussed programs that address their particular needs.

Competitive classrooms (or those perceived to be) may be stressful for underachievers, if they are seen as providing continual evidence of the student's lack of ability. Avoidance is a commonly used coping strategy by underachievers; hence at the time of their identification they are more likely to want to avoid academic challenges than to welcome them as potential sources of intellectual satisfaction.

Whitmore (1980) argued this in her pioneering work with gifted underachievers. She proposed five main reasons for grouping together gifted underachievers:

- **‘To decrease self-degrading invidious comparisons with high achievers.’** (p. 207) She observed that, far from acting as inspirational role models, high achieving gifted students often intimidated their underachieving gifted peers (presumably reinforcing the underachievers’ low self-efficacy and low self-esteem).
- **‘To develop acceptance of self through acceptance of others with similar problems.’** (p. 208) Through group sharing they gained respect for the worth and the struggles of their underachieving peers. The expectation was that self-acceptance would grow as a result of these insights and that the experience of helping others cope with their struggles would enable gifted underachievers to become more capable of helping themselves.
- **‘To enjoy rewarding intellectual stimulation and a curriculum centred on their strengths and areas of past success.’** (p. 208) She argued that gifted underachievers needed more opportunity to practise, and experience success in, creative thinking and problem solving.
- **‘To acquire a sense of “genuine success”.’** (p. 209) She observed that gifted underachievers, some of whom had a specific disability, needed challenging activities (eg debate, research, experiment) and creative productivity ‘with peers of similar advanced mental age’ (p. 209) if they were to experience the sort of success that leads to self-confidence — and to develop the enhanced academic self-efficacy that we discussed in Extension and Specialisation Modules 4.
- **‘To develop social skills and potential for leadership.’** (p. 209) Whitmore described the gifted underachievers in her study as exceptionally perceptive and sensitive but noted that in their home classes they were perceived by peers as ‘problem students’, isolates/loners, bullies or victims. Grouping them together in a new class removed them from these preconceptions and allowed their teacher to accelerate their socialisation process, through both formal and informal opportunities.

Appropriate curriculum

An appropriate curriculum for the gifted underachiever may need to include a strong emphasis on personal development and life skills that increase the students’ opportunities for self-belief and constructive self-direction. An example of such an approach was the Northern Lights project in Manitoba, Canada. It targeted at-risk gifted students who were underachieving to the point of becoming school drop-outs. To begin the program these students were grouped together in a special class. As McCluskey et al (2000, p. 3) explain:

‘These classes, which ran for one month, featured general workshops (on communication, relationship building, conflict resolution, learning styles, etc), career exploration (through interest inventories, resume writing, job search practice, and interview simulations), and Creative Problem Solving After learning how to use strategies from their CPS “toolbox”, participants developed individual growth plans to map out how they might move from their “current reality” to a more “desired future state”.’

Likewise, Reis et al (2005) conducted a three-year study of economically disadvantaged, culturally diverse, academically gifted high school students, half of whom were achievers and half underachievers — the students' resilience, or lack of it, being one of the issues explored. Among other things, Reis et al (2005, p. 118) concluded that:

'Based on this research, high school counselors or gifted coordinators may consider including the following components that may act as protective factors to help facilitate the development of resilience: after-school and summer programs, time with additional adult counselors and positive role models, more challenging classes, gifted programs, and peer support programs.'

That is, opportunities for participation in appropriately challenging (and supportive) ability grouped settings — along with access to counselling — were recommended.

A trial period?

Just as a trial period is recommended for gifted students who are being accelerated, so it has been suggested (Delisle, 1992, p. 184) that culturally diverse students (and, we would add, underachieving students, whatever their cultural background) be allowed trial participation in special provisions for the gifted, not only to assess their readiness but also as a way of encouraging them to engage in activities and settings that they may otherwise avoid, because of fear of inadequacy or lack of prior experience with them.

A whole-school approach

One major aim of a school's G&T policy and planning should be its commitment to a well coordinated and defensible whole-school approach. Identification and provision will be most effective, and efficient, if class teachers are able to build upon the foundations laid by their peers and able to receive support from more experienced or knowledgeable colleagues when they need it.

Principles underpinning a whole-school approach

Developing a set of principles to guide practice in your school might be a useful starting point. It is important that these are discussed, fully understood and accepted by all members of staff. This is where leadership provided by the Principal, School Executive and/or G&T Coordinator will be very important.



Before reading on, write down what you consider to be important principles to guide a school's policy and practices.

We offer the following as some principles worth considering:

Don't do for students what they can do, or be taught to do, for themselves.

Teachers are already busy people, so finding ways to add to what you offer without adding unduly to your workload is highly desirable.

One school put this principle into practice by having a 'speakers bureau' run entirely by the students, who were responsible for choosing, contacting, welcoming and thanking outside specialists who would visit to share their passion and expertise with gifted or all students within the school.

Jerry Flack's notion of identifying and encouraging 'resident experts' within the student group is another example of this principle in action. Gifted students in particular, though not exclusively, may be encouraged to share and extend their expertise in a specific area, so that peers may learn from (and acknowledge/respect) their talents. It is important that this be done in a way that avoids it becoming exploitation and a denial of the gifted students' own access to new learning; hence, it may be best to allow the resident experts to control the nature and extent of their contributions in this way. Examples of possible resident expert roles are 'student artist in residence', 'local history expert', 'website evaluator' and 'student ethicist'. Note, though, that this strategy may work best if the students are encouraged to nominate their own areas of expertise — and also to suggest ones that the school community would benefit from having.

If you pursue this principle you should help your students to increase their feelings of academic self-efficacy and to develop an internal locus of control (eg attributing their successes to their own efforts and abilities).

Establish links beyond the school.

Community expertise may be enlisted to assist as sources of specialist information, as developers of specific skills, as expert audiences for gifted students' investigations and creations, or as formal mentors.

Have a rolling three-year plan and review it regularly (ie at least annually).

Having a three-year plan enables you to 'start small but think big'. This plan should be a coherent program rather than a set of unconnected provisions.

The foundation of any defensible program will be a range of forms of differentiated provision within each classroom (whether mixed ability or selective). Hence, systematic provision of professional development for class teachers should be built into the school's three-year plan.

The school's plan may also include a range of part-time-withdrawal-based provisions. There is virtue in providing a variety of opportunities — **some** of which may be open to any student who wishes to participate, to provide opportunities for identification of hidden potential — and allowing some cross-age participation, so that younger gifted students have opportunities to mix with older like-minded students.

Make good use of the talents and interests of members of staff.

Encourage teachers to share their own special expertise with like-minded students. Part-time withdrawal programs often operate on this basis and access to online communication options should increase this possibility.

A teacher may find at her school only one or two students who share her area of particular interest or enthusiasm, yet similar young enthusiasts may exist at numerous other schools across her region or state (or nationally). In the near future it is likely that online courses will become more common as a means of linking such otherwise isolated students with teachers who can, and wish to, lead them to explore at highly challenging levels of learning.

See identification as an ongoing, never completed task.

You can never be sure that you have found all underachievers, especially those deliberately playing down their high potential and also the self-doubters, so keep an open mind and invite surprises. While identification should not be thought of, pessimistically, as a corridor of receding mirrors, it is wise to see it as a never-ending process, and one with a diagnostic purpose rather than a labelling one.

Teach skill development, including creative thinking, throughout the school.

You will increase the likelihood of students being able to become independent investigators and communicators if your school develops a schoolwide scope and sequence plan for cumulative skill development. This plan may comprise research skills, communication skills, and social skills.

It seems imperative that it include the development of such online skills as conducting purposeful searches, evaluating the content of web sites, and adhering to discussion 'netiquette'.

Promote the pursuit and recognition of excellence as a school-wide goal.

Encourage diversity and the acceptance of diversity. A school that embraces individuality in its many positive forms — so that differences are not just tolerated but valued and celebrated — will create an environment amenable to talent development.

In an ideal school community gifted students will neither feel threatened by others who resent their particular forms of difference, nor feel a need to retaliate by using negative verbal behaviour as a defence mechanism.



Having read these suggestions, pause to consider whether you wish to add any of them to your own draft list, and whether you now wish to modify your list in any other ways.

The G&T coordinator

Ideally, each school will have someone designated as its G&T coordinator, a role that is a mix of advocacy (eg of well-founded ideas and strategies, of the need for differentiated provision for the gifted) and professional support (eg helping other teachers, addressing some aspects of the needs of gifted students).



In a large school this role warrants some time allowance to enable such contributions to be made. In reality this seems to vary from an hour per week to the G&T coordinator role being funded as a half-time position.



Any coherent, systematic, whole-school approach is much more likely to be effective, and to endure, if it is embedded in the school's structure, budget and professional development plan. By allocating their G&T coordinator some highly visible support — not only open encouragement but also time for fulfilling the role and an ongoing budget (however modest) — Principals can demonstrate their school's genuine commitment to addressing the needs of its gifted and talented students.



While this section, on a whole-school approach, is not intended solely for Principals, it is crucial that you and members of your executive staff take a leadership role if our suggestions are to be evaluated, modified or expanded to suit your circumstances, and then put into practice in your school.

The G&T coordinator's role will vary according to the school's size, the nature of its student body and its approach to the identification of gifts and development of talents. Responsibilities that may be considered desirable, if time permits, include:

- Participation in policy development, perhaps as a member of the school's G&T Committee.

A schoolwide G&T committee can help to share the workload and may include student members and parent/community members, as well as interested, knowledgeable teachers. It is highly preferable that it include the Principal or another senior executive member, to enhance its credibility and authority within the school.

- Testing and placement of students for special grouping and for subject- and grade-acceleration.
- Other aspects of G&T identification and case management: eg students new to the school, underachievement.
- Coordination of pastoral care of G&T students, including advocacy for students, individually and collectively, and strategies for meeting social-emotional needs.

For example, this may involve meeting all accelerated students within the school at least once per month.

- Provision of leadership in differentiated curriculum development (eg by modelling good practice as well as making colleagues aware of new strategies and ideas).
- Organising, in collaboration with school executive, professional development of all staff on definitions, identification, provision and affective support.

The orientation of new staff members to agreed school practices will be important if continuity is to be ensured.

- Coordination of a mentoring program for highly gifted students.
- Coordination of specific extension activities: eg enrichment days, competitions, external courses for gifted students, online provisions.

This may involve overseeing competition coordination by staff members from relevant subject departments (secondary) or Stages (primary).

- Liaison with parents about identification, placement, provision and pastoral care.

Ideally, some form of parent information booklet and/or face-to-face parent information sessions will be provided.



Outline a plan for a whole-school approach to talent development in your school. Consider what is required for it to be adopted.



Outline, and discuss with colleagues, a plan for a whole-school approach to talent development in your school. Try to reach consensus on what is required for it to be adopted.



Outline, and discuss with colleagues if appropriate, a plan for a whole-school approach to talent development in your school. **Consider** what is required for it to be adopted and what your leadership role(s) will be to ensure its acceptance and success.

Part 2

Maths and acceleration

Because of the nature of the subject matter it has been suggested that students gifted in mathematics can have their high potential most economically developed via acceleration. While there will be individual differences in this, it has also been found that such students often prefer faster paced, more challenging learning. For example, Diezmann and Watters (2000) report Julian Stanley as finding that:

‘Figuratively, they [gifted students] were starved for mathematics at the proper pace and level and rejoiced in the opportunity to take it straight rather than being “enriched” with math puzzles, social studies discussions, trips to museums, critical thinking training not closely tied to mathematics, and so forth.’

Many of the studies analysed by Karen Rogers to show the academic value of subject acceleration were done in the area of maths.

As we discussed previously (in Specialisation Module 1), one of the most noteworthy programs for mathematically gifted students has been the Study of Mathematically Precocious Youth (SMPY), begun by Julian Stanley at Johns Hopkins University.

In their study of 320 profoundly gifted SMPY students — those who by age 13 had scored in at least the top 1 in 10,000 in either mathematical reasoning ability or verbal reasoning ability — Lubinski, Webb, Morelock and Benbow (2001, p. 720) found that:

‘an overwhelming majority of participants (95%) took advantage of various forms of academic acceleration in high school or earlier to tailor their education to create a better match with their needs. ... Most participants (71%) were satisfied with the level of acceleration they experienced. Of those who did not indicate satisfaction with their acceleration experiences, the majority indicated that they would have preferred to have been accelerated even more, not less.’

Several of the examples cited below, in our discussions of radical acceleration and early tertiary entry, involve students whose exceptional ability was in maths.

We are not suggesting that acceleration should be the only form of provision for students gifted in maths; our point is that it is often viewed favourably by such students — meeting their need for advanced and fast-paced learning — and that research evidence is supportive of its appropriateness. Therefore, it deserves full consideration when you are deciding what form(s) of provision are best for any particular student whose giftedness includes maths.

Radical acceleration considerations

Radical acceleration is generally said to have occurred when a gifted student finishes school three or more years earlier than age peers (Gross & van Vliet, 2003).



In Core Module 6 we cited the case of 'Michael', a profoundly gifted student who was radically accelerated into university (the University of New South Wales) at age 15, after completing Year 9 at his state high school — ie grade skipping three Years. He was a classic example of Robinson and Weimer's (1991, p. 38) observation that 'In very bright children ... social skills may appear "retarded" when in fact they have had no intellectual peers with whom to share play interests or conversation.' At university Michael found both intellectual stimulation that matched his readiness and opportunities for social interaction with like-minded people. After his first year at university he wrote:

‘Often people who comment on such schemes seem worried that such acceleration may cause social problems. I have found the reverse. In high school I was despised by most of my peers for not fitting into the norm, whereas at university there are many more people who share my interests. Generally, my age, if they ever find it out, is not a great problem in my relations with them. One of the things that became patently obvious to me this year is how utterly frustrated I was at high school. Despite the great cooperation of many teachers, I find that when I look back on life at [high school], it appears as one great stretch of misery. In summary, I feel that the acceleration has been a great success academically, and socially.’

Thus, radical acceleration may be said to have enabled Michael to avoid remaining a **social underachiever**.

At high school he was also a chronic underachiever in humanities subjects. When he was accepted into UNSW some of his former teachers predicted that he would not succeed because UNSW required its BSc students to complete two humanities/Arts subjects in their degree and at high school he was perceived to be a student who ‘could not write’. In fact, Michael attained results of Credit and Distinction in his two humanities subjects, not as stellar a performance as in his maths subjects but a clear indication that he had above average potential in these areas. His performance at school — interpreted as ‘he could not write’ — was in reality a case of his **choosing** not to write, presumably because he found the content uninteresting or unchallenging. Here is further evidence that we should not judge a bookworm by his or her cover!

The advice in Core Module 6 on the **process** of implementing acceleration is even more crucial when considering radical acceleration. The following advice should also be considered:

- As Michael’s case above illustrates, academic and/or social underachievement may well be signs of the need for radical acceleration — rather than reasons for deeming it inappropriate — where highly gifted students are concerned. Hence, the importance of determining levels of giftedness and of following up any indication of high potential, even if it seems to be only in a single domain.

Research suggests that radical acceleration is very much more likely to be appropriate, and to be effective, with exceptionally and profoundly gifted students (IQ 160+) than with those less unusually able, eg the moderately gifted.

- It is usually recommended that radical acceleration be spaced out as a number of single grade skips throughout the student’s schooling rather than as a single multi-grade skip. While Michael’s case provides a contrary example, in hindsight it may be seen that he would have benefited from acceleration much earlier in his school career — eg when he was found to be capable of Year 8 maths when in Year 5 and almost certainly earlier than that, in his early childhood phase.

An example of multiple-step radical acceleration was the boy in the ACT who had skipped three Years by the time he was in his first year at high school (and was expected to skip another) — starting school in Year 1 (ie skipping Kindergarten altogether), then accelerating from Year 1 to Year 3, and later skipping from Year 5 to Year 7.

The final year of primary schooling or the first year of secondary schooling is often a good time for a grade skip because of schools' tendency to revise and consolidate previous learning during that first year of high school.

This multiple-step acceleration allows the school to assess the student's capacity to cope with the acceleration before deciding whether, and if so when, another grade skip is appropriate. In Stage-based systems it may mean that a highly gifted student spends only one Year, rather than two, in two or more of the Stages — a recognition of her rapid pace of learning and advanced knowledge base.

- To reiterate a point made above, a child who is likely to benefit from radical acceleration should be started on this process from a young age. The girl in the following example (Kearney, 1993, p. 16) seems likely to be such a candidate:

'Cindy, whose reading taste at age four included the works of Laura Ingalls Wilder and Madeleine L'Engle, sat on the rug during Circle Time at her preschool with her mother, who was volunteering in the classroom that day. The teacher began reading a familiar, beautifully illustrated alphabet book to the children, naming the letters as she read.

Cindy leaned over to her mother, realizing the full import of this familiar activity for the first time. She whispered to her mother incredulously, "She's trying to teach them their letters, isn't she, Mom? They don't know letters yet!"

- Radical acceleration can help a highly gifted child appreciate the full extent of his potential and thus why he has always felt different from age peers. One Australian parent, of a child who was successfully subject-accelerated in maths from Year 6 into Year 10, commented that:

'from the time he was radically accelerated in Maths, James realised how much brighter he was (in some subjects at least) than many of his age peers. Up till this point he was acutely aware of being different, but the difference always had only negative connotations. Now he could see that he was easily able to cope with this advanced work and it gave him some concept of where he fitted in the overall scheme of things.'
(Townsend, 1996)

She added that 'in James' case the best thing which ever occurred in his school career was being radically accelerated in Maths'.

- In her Australian study of exceptionally gifted students Miraca Gross (2004) found that the most effective educational programs provided for these students had been those designed through the close cooperation of the school, the parents and the student. Parents are often as reluctant as teachers to agree to having a child skip more than one grade. Therefore, this three-way communication and decision making is essential when radical acceleration is being considered and planned. It needs to begin well before the decisions is made and to be ongoing, since radical acceleration is likely to be implemented in a number of small steps over several years.

- Gross (2004, p. 281) also found that ‘in every case’ the students in her study who were radically accelerated had not only achieved outstanding academic success but also had found what she termed ‘the “sure shelter” of a warm and supportive friendship group’ — ie, through their access to children at similar stages of cognitive and affective development, rather than being restricted to contact with age-peers. This positive evidence should be shared with students considered for radical acceleration (and their parents), especially if they are reluctant to agree to it even though the school’s professional judgement is that it seems the best option.



- A suggestion worthy of further investigation is Nancy Robinson’s (2004) observation that:

‘In my experience, one-year acceleration in elementary or secondary school often leaves a student looking immature but otherwise not distinguished from classmates. With two years or more of acceleration, the age difference is differentiable, so that the student is more likely to be identified as “young” rather than “immature”, seen on his or her own terms rather than by rigid age-grade expectations.’

Factors associated with successful radical acceleration

Gross and van Vliet (2003) report the following as variables that the research evidence shows to be related to successful radical acceleration:

- Personal characteristics of the student — eg their motivation to achieve, persistence and passion for advanced learning; their acquisition of advanced study skills.
- Involving the student in educational planning — ie ensuring that they are supportive of the strategies to be used and believe that the benefits of these will outweigh any regrets about missed opportunities (social, creative or sporting).
- Supportive family — eg encouraging; willing to allow their children greater independence despite their young age + being kept informed about the process of radical acceleration and any associated counselling / pastoral care.
- Supportive educators — eg long-term critical planning, monitoring and mentoring by a well-informed educator.
- Individualised acceleration planning — eg access to a variety of acceleration options, and consideration of the optimum timing for using whichever seem to suit the particular individual.
- A flexible approach to teaching and learning — eg adjusting the individual's plan as needs and circumstances change.
- Programming to support the affective needs of students — eg addressing the need for interaction with like-ability, like-minded peers; providing counselling / pastoral care support before and during the acceleration process.
- Opportunities to develop skills for advanced study — eg the skills of effective note-taking, essay/assignment writing and time management.

Early entry to tertiary education

Is it effective?

The successful case of ‘Michael’ (above) demonstrates that early entry to tertiary education can be a highly appropriate way of addressing the needs of highly gifted students.

However, a recent Australian report (Figgis et al, 2002, p. 5) found there to be

‘little, if any, reliable evidence of the outcomes for school, universities or the system as a whole, or of the way(s) in which these arrangements actually benefit the students involved.’

Perhaps more surprising is their finding that while some students use the credit earned during high school to accelerate their subsequent university studies the vast majority ‘appear not to be interested in accelerating their university course’ while for many students ‘the university subject studied at school is not particularly relevant to their intended degree’ (Figgis et al, 2002, p. ix). In such cases the acceleration is providing a form of enrichment, presumably, as well as an opportunity to explore tertiary-level study.

Fortunately, there is considerable research (and anecdotal) evidence available from North America (eg Olszewski-Kubilius, 1995), some of which is summarised below:

- The academic performance of early tertiary entrants is impressive. They attain higher grades than other students, are more likely to complete university and to do so on time, and are more likely to become recipients of prizes or other honours.

Nevertheless, there are some underachievers and some drop-outs, though the numbers of these tend to drop as programs become better established (eg providing better counselling and other support, or employing more stringent selection procedures).

- There is much less conclusive evidence on how well early tertiary entrants fare socially and emotionally. However, there is evidence that students generally felt positive about their peer relationships at university.

The student’s social experiences as an early entrant to university will vary according to whether she is a gregarious extravert or a quiet introvert, among other things. Nevertheless, Wright (2001, p. 7) reports that:

‘So many parents find their profoundly gifted children blossom in college. For the first time, they are able to befriend people interested in their favourite subjects.’

On the other hand, Swiatek (2002) notes that ‘some students who are radically accelerated approach school as a solely academic activity, and look to other settings for social interaction’ which parents can encourage ‘by providing their children with opportunities for involvement in extracurricular activities’.

Furthermore, while it may be counterintuitive, ‘several parents have indicated that their highly gifted children are happier and they have more time to “be kids” after enrolling’ as early tertiary entrants.

- As has been found elsewhere when gifted students move into more challenging academic settings, a decrease in self-esteem has been reported but it tends to be small and usually temporary in nature.
- Few early tertiary entrants express regrets about their decision.
- Most used in very productive ways the extra time they gained by early entry to university, generally progressing to postgraduate study.

Olszewski-Kubilius (1995) concluded with the advice that:

‘Students can also prepare for the experience by obtaining early career counseling and by developing interests that will be the basis of new friendships. Most important, the decision to enter college early should be primarily the student’s but once made, families need to be supportive and to recognize that despite their child’s extreme ability, there will be challenges and disappointments, but also a great deal of positive growth.’

What forms does it take?

- It can involve radical acceleration, as in Michael’s case, where a carefully screened student skips several grades at once, to begin university study without completing the senior years of high school. However, this form remains relatively rare in Australia.
- Dual enrolment can mean that a student is undertaking secondary courses while still in primary school (as happened with Terry Tao who was capable of Year 10 maths when a 7-year-old) or it can mean that a gifted student is allowed to enrol in a university subject (or several) while still at school.

The expansion within the Australian university sector of distance education provisions, especially online teaching, is creating more opportunities for gifted school students to take up this option, regardless of their location. For example, Peter Merrotsy (2002, 2003) has documented a variety of instances of this involving students at a small, relatively isolated rural high school in NSW.

However, the distance education mode of learning does require considerable self-discipline on the part of the student and feedback may sometimes seem very slow, so it is desirable that a teacher at the student’s school accept the role of local mentor/tutor for the duration of the university study.

If the student’s school is close enough to a university attending face-to-face classes is an alternative and a particularly desirable one for subjects with significant practical components.

Arranging transport and the timetable so that attendance at university classes is possible are tasks that the school should manage.

In the case of Andrew, who began a science degree specialising in computing when in Year 9 (aged 14), he attended university classes during the afternoon set aside for school sport. Wisely, Andrew was encouraged to conduct an analysis of the positives and negatives of attending university before he agreed that he would like to attempt it. He achieved a High Distinction in his first subject there, a second year elective. When invited to reflect on the experience Andrew mentioned that he had made ‘some good friends at University’ and commented that:

‘The school has been very supportive, particularly the Gifted and Talented Coordinator. She has helped me organise everything with the University and determine what subjects would fit in with my school timetable, as well as helping me to determine what subjects may be suitable. I like to keep a low profile at school and don’t make a big deal about going to University. The school has been helpful here in keeping my publicity to a minimum.’ (Irwin, 1998, p. 22)

- Dual enrolment has the advantage of easing a young gifted student into tertiary study. In effect, it acts as a form of trial of whether tertiary coursework is the best (acceleration) option for an individual student at a particular time. If successful it may lead to further dual enrolment or to a move into full-time tertiary study.

How easy is it to arrange?

Not yet as easy as it should be, though this is changing. At the time of their survey in 2001, Figgis et al (2002) found that 23 of the 37 (out of Australia’s 39) universities that responded offered some form of early entry or university credit option.

They also found that in most cases these options were provided without cost to the accelerated students, though the issue of ‘who pays?’ remains to be resolved formally and consistently (and fairly) across the university sector as a whole.

As long ago as 1977 Halbert Robinson founded an Early Entrance Program at the University of Washington that was designed for much younger students than most previous programs for early tertiary entrants (students typically being under the age of 14 at entry). A significant aspect of it was its provision of extensive social, emotional and academic support for the young gifted students. This included having enough students to provide a ‘peer group’ of early entrants, structured and unstructured meetings of this group of students for at least the first year of full-time university involvement, a common-room to use as a ‘home base’, a transition year to ease them into full-time university study (which addresses possible gaps in their knowledge base, among other things) and ongoing counselling support (Brody & Stanley, in Southern & Jones, 1991).

Who will benefit from it?

Whether a particular university provides support for early entrants will be one consideration for their parents and the teachers advising them when a decision is being made about whether, and if so where, to enrol a young gifted student, especially if this is to be on campus and full-time rather than by distance education or part-time.

Based on her personal involvement in it and her analysis of the research evidence, Nancy Robinson (2004) reached the following conclusions about early tertiary entry:

- It may suit those highly gifted older (usually teenage) students for whom it provides the 'optimal match'. 'Essentially, children learn best what they're ready for, or almost ready for, and what gives them a bit of a stretch — not so much that they find it aversive, not so little that they're bored.'
- It may not be the best option for 'poorly focused students or students who have competing agendas such as team sports, family conflicts to survive, or delayed puberty'.
- Students' motivation usually rises when the optimal match occurs but some gifted students who have been really turned off previously by an underchallenging educational system may not respond as hoped to this form of provision.
- It can help gifted students escape pressure to 'be like everyone else'. The girls and young women in the University of Washington program report 'that they, in particular, feel empowered as never before to find their own identities and social roles'.



Draft a plan for how your school can best deal with gifted students who may benefit from radical acceleration (which may include early entry to school). Include details of the process and of who will be responsible for the various components of this process.



Draft a plan for how your school can best deal with gifted students who may benefit from radical acceleration (which may include early entry to school). Include details of the process and of who will be responsible for the various components of this process. Discuss your plan with other teachers and refine it in light of their comments.



Draft a plan for how your school can best deal with gifted students who may benefit from radical acceleration (which may include early entry to school). Include details of the process and of who will be responsible for the various components of this process. Consider what your leadership role will be — in having this plan accepted by the other members of your staff, and in its implementation, monitoring and evaluation.

Where To From Here?

In 2002 the American National Association for Gifted Children published *The social and emotional development of gifted children: What do we know?* a book of 24 chapters written by leading international researchers and focussing on different aspects of the socio-affective development of gifted children and adolescents.

We have reproduced here, with permission of the publisher, the closing section of this book which discusses what our schools and our societies must do if intellectually gifted students are to be educated in an emotionally secure environment.

‘The notion that some people can be “too smart for their own good” permeates contemporary society and creates a social climate in which intellectual and creative efforts by children and adults are undervalued. One consequence of anti-intellectualism has been a damaging tendency on the part of gifted children to deny their talents and try desperately to become “just like everyone else”. In a society in which all citizens should be respected and welcomed for who they are and what they can contribute to others, respect for individuality and appropriate resources must be provided to gifted and talented youth, as well as to others. Positive change will ensue if we create an open climate for the development and support of gifts and talents.

- Understanding will be enhanced that giftedness does not **inherently** bring with it increased social and emotional vulnerability. Problems do not occur simply because a child demonstrates gifts and talents, and they must be understood in a broader context.
- National efforts to increase the availability of a variety of appropriate instructional and out-of-school provisions must be a high priority since research indicates that many of the emotional and social difficulties gifted students experience disappear when their educational climates are adapted to their level and pace of learning. Among such educational provisions should be opportunities for academic acceleration and enrichment, together with opportunities for gifted children to find companions of similar maturity, interests and commitments to develop their gifts and talents. Too many schools across the country actively discourage, or even prohibit, capable students from moving through the curriculum at a pace commensurate with their abilities. Sadly, too, many schools maintain practices that prevent gifted students from working with others of similar ability for all but a couple of hours a week.
- Wider acceptance of the value of high attainment will create an atmosphere that rewards students’ best efforts and their courage in the face of life’s challenges. These two components are essential to the fulfilment of promise.
- Opportunities should be provided for adults — particularly parents, teachers and counsellors, and potential mentors — to enhance their skills at recognising talent and responding effectively to the social and emotional needs of gifted and talented students in a variety of ways. This will lead to the creation of an informed cohort of adults who can support and counsel gifted students as needed and can nip in the bud many potential problems before they fester.’ (Robinson, Reis, Neihart & Moon, 2002, pp. 286-287).

What can your school do to put these principles into practice?

- Encourage all your colleagues to use this Professional Development Package. Some schools have trained their entire staff using the Core Level of the Package and we have had wonderful feedback on how this has changed both attitudes and practices within the schools.
- Encourage those staff members who have particularly enjoyed the Package to investigate further training in gifted education. A number of universities across Australia now offer Master of Education subjects in gifted education or even full MEd degree programs specialising in gifted education. Some universities offer this by distance education. In addition, the writers of this Professional Development Package are available to conduct inservice activities for schools and regions in any area of Australia. Contact the Gifted Education Research, Resource and Information Centre (GERRIC) on (02) 9385 1972.
- Provide appropriate education choices for the gifted students in your school. ‘No single strategy or setting will fit the needs of every gifted child, but the ordinary classroom, maintaining the usual status quo, will fit the needs of none’ (Robinson, Reis, Neihart & Moon, 2002, p. 282).
- Actively look for students who would benefit from one or more of the many types of acceleration which have been described in Module 6 and elsewhere in this Package. Properly planned and monitored, acceleration does not cause social or emotional difficulties for gifted students. By contrast, retention with age-peers in the mixed ability classroom without access to curriculum set at an appropriate level or pace and without the companionship of students who are at similar developmental levels intellectually and emotionally, may well do so.
- Put in place, in your school, some of the forms of ability grouping which have been described and discussed in this Package. Gifted students in ability grouped settings achieve, academically, at higher levels than do ability-peers in mixed-ability classes, and they also develop happier social relationships and a better acceptance of their own abilities.
- Help gifted students develop resilience. Assist them to value and develop their own strengths — but ensure that this does not translate into leaving them with most of the responsibility for this. No student, no matter how talented, should bear the weight of a responsibility which is rightfully the school’s.
- Work with colleagues to change the culture of your school where that culture does not promote and facilitate the needs of all students, including the gifted. Remember that gifted students are found within all cultural, ethnic and social groups. Promote acceptance and respect for gifted students and also encourage in your staff ‘the willingness to make the relatively small investments (gifted students) need for what is potentially an enormous pay-off’ (Robinson, et al, 2002, p. 283).



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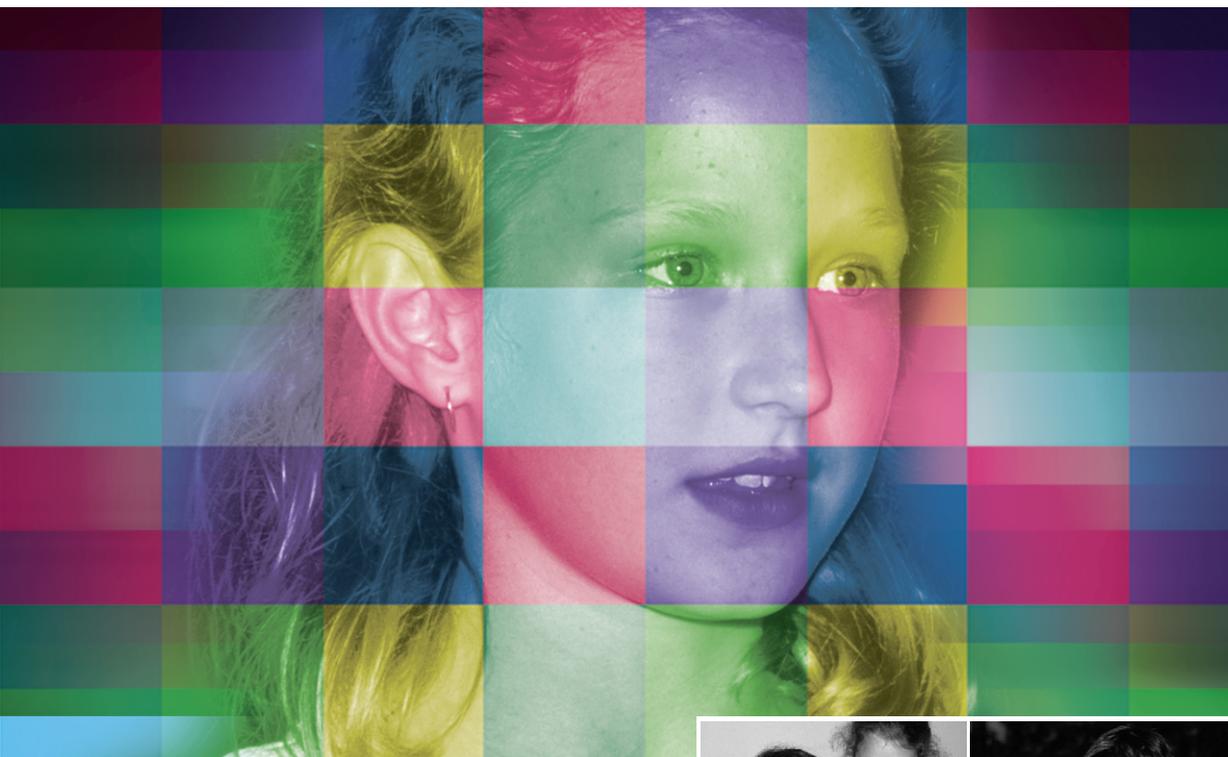
<http://www.nationdeceived.org>

[A copy of the 2004 report on acceleration, *A nation deceived: How schools hold back America's brightest students*, which provides a detailed synthesis of the major research on acceleration.]

GIFTED AND TALENTED EDUCATION
PROFESSIONAL DEVELOPMENT PACKAGE FOR TEACHERS

SPECIALISATION

Module 6



Primary



Stan Bailey

Module 6

Other Issues in Developing Programs and Provisions
for Gifted Students

Welcome to Specialisation Module 6, the final Module for this Professional Development Course. In it we will discuss other aspects of acceleration and grouping, including cultural considerations, radical acceleration, and early entry to tertiary education. The important issue of planning a whole-school approach to addressing the needs of the gifted will also be analysed, as will the support role that can be played by a school's gifted and talented education coordinator.

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Specialisation Module 6: Primary

Other Issues in Developing Programs and Provisions for Gifted Students

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Outcomes

At the completion of this Module you will:

- understand the potential positives in grouping together underachieving students or students from special populations.
- be aware of principles to guide the development of a whole-school approach to identification and provision, including grouping and acceleration.
- have a fuller understanding of specific issues to consider when deciding whether and how to implement acceleration, including radical acceleration of the highly gifted and early entry to tertiary education.

Part 1

Age / gender / cultural issues associated with grouping and acceleration

Boys and early entry to school

Concern about developmental differences (eg social and emotional maturity) between boys and girls have led to the suggestions that early entry to school may be more appropriate for girls than for boys.

However, we should keep in mind Tannenbaum's (1983) finding that social/emotional development is more highly correlated with mental age than with chronological age, so gifted four-and-a-half-year-old boys may well be ready to mix with older children in a Kindergarten/Reception class.

There are reports (eg Southern & Ferguson, 1996) that young gifted boys are more likely than girls to exhibit frustration with written work and to be less willing to write. However, this is not a reason for denying a gifted student access to early entry, if he shows signs of readiness in other ways (such as advanced vocabulary and interests, early reading, frustration with age peers in preschool).

Common advice, eg by Cornell et al (1991, p. 79), is that: 'Early admission should probably be restricted to children who are extremely advanced relative to their chronological age in both academic and socioemotional domains.'

However, the possibility needs to be explored that gifted children from disadvantaged backgrounds — both boys and girls — may benefit from early entry if it provides them with greater intellectual stimulation, challenge and support.

Examples of Australian policies on early entry may be found at:

<http://web.ceo.adl.catholic.edu.au/SACCS/Policies/EarlyEntry.pdf>

Cultural considerations

As we discussed in the various levels of Module 4, children from cultures that are minorities within any society are likely to be underrepresented in special provisions for the gifted and talented, and that is even more likely if they are from low-income families (Frasier, 1993; Tomlinson, Callahan & Lelli, 1997; Ford, Moore & Milner, 2005). Reasons for this include the use of inappropriate (ie culturally insensitive) methods of identification and the students' inability or unwillingness to respond positively to teaching that does not closely match their cultural values or learning styles.

As we reported in Core Module 6, one secondary teacher (and G&T coordinator) arranged a weekly meeting with the small group of grade-skipped students in his Sydney school to enable them to discuss — with each other and with him — their progress and any matters of concern. There may be value in other schools making similar arrangements for their culturally diverse gifted students, to encourage them to act as a support group for each other and to provide regular access to a teacher who is seen to be 'on their side'. Ford (1996, p. 81) cites an example in the USA where a teacher organised a midday discussion group for gifted students which addressed 'stress, personality styles, testing, recognizing strengths and weaknesses, family conflicts, career concerns, and relationships'. Butler-Por (1994, p. 222) states that this demonstration of teacher support is 'most important for creating emotional security, which constitutes an essential condition for overcoming underachievement'.

If such regular group 'counselling' meetings of gifted students from culturally diverse backgrounds are helpful their organisation ought not be left to the initiative of individual teachers (whose departure from the school may mean that the support ceases) but should be built into your whole-school plan.

Ability grouping vs mentoring

Members of some culturally diverse groups may consider mentoring to be more compatible with their cultural beliefs and values than selective classes or schools. It has been pointed out (Peterson, 1999, p. 374) that 'the values of nonmainstream groups apparently often do not encourage individual, competitive, conspicuous achievement' — hence the members of such groups may either be overlooked for, or may eschew, selective settings.

However, one research study in NSW provides evidence that this is not necessarily the case. Taylor (Vasilevska, 2001, p. 27) interviewed students, their parents and their teachers from 15 disadvantaged government schools, finding that:

'the perception that parents from Aboriginal and Torres Strait Islander, Arabic speaking and Pacific Islander background did not value ability grouping provisions such as selective high schools and OC classes [ie full-time upper primary classes for the gifted] could not be substantiated.'

Hence, teachers should avoid basing on stereotypes or unjustified preconceptions their decisions about what forms of provision are most appropriate for, and acceptable to, culturally diverse gifted students. As we stressed in Specialisation Module 4, close consultation and open communication with your school's parents and wider community are important components of your planning process if it is to be culturally sensitive and inclusive.

That said, some cultures have traditionally had an approach similar to mentoring as their way of dealing with highly able children — eg 'traditional Maori methods of education, where children who displayed ability and interest in a particular field were often taken under the wing of a tohunga or expert and given private tuition' (Taylor, 1996, p. 401) — so it warrants particular consideration as a strategy, whatever else you may include in your whole-school plan.

One way of providing culturally different students with emotional as well as academic support is to provide them with mentors and role models from within their own culture who are 'confident, personally secure, and academically and professionally successful' (Ford, 1995, p. xiv).

In the case of gifted students from culturally different backgrounds, a mentor from within the same cultural group can be a role model for dealing with the challenges specific to being a member of that subculture within a culturally diverse society. In some instances this may lead to raised aspirations for school and beyond, as well as coping with any negative pressures to underachieve for peer affiliation reasons. Davis and Rimm (1998, p. 304) assert that 'all other treatments for underachievement dim in importance compared with strong identification with an achieving model'.

While a common cultural identity may add an extra dimension of empathy to a mentoring relationship it is not always essential, so long as the mentor is sensitive to and respectful of the culture of his or her 'apprentice'. The crucial thing is their shared passion for an activity or domain of learning. Delisle (1999, p. 242) observes that:

'Mentor relationships tend to be especially effective ... for economically disadvantaged gifted youth, who may need the opportunity to see possibilities that exist outside of the limited domain of their neighborhoods'

Because of its individual focus, in most cases, mentoring has the potential to provide the gifted student with fast-paced learning, so can become a form of acceleration — and perhaps an informal 'trial' for other types of acceleration — for the mentee.



An Australian research study on acceleration

One noteworthy study of acceleration in the Australian context is that of Kim Jaggard (2000), on 'Student perceptions of subject acceleration in NSW secondary schools'. His research sample comprised 1,283 students, with an average age of 14.5 and almost equal numbers of boys and girls. His findings included:

- The students felt that the teachers' reception of their acceleration was 'grudging' in only 2% of cases — an encouraging indication of growing recognition of the merit of this form of acceleration.
- A sizeable proportion of the students acknowledged that they had fears about the acceleration prior to its commencement — 34% of the boys and 57% of the girls. However, only 21% of the boys and 35% of the girls reported that what they had fears about had actually occurred.
- When asked whether the subject acceleration had led to teasing by peers a somewhat reassuring 86% said no — though there is no cause for complacency here, given that 14% answered in the affirmative.
- Very few of the students said that they would have preferred to have stayed with their age peers — a mere 7% of a subgroup of 291 asked about this.
- There was found to be little gender difference in the students' self-esteem.
- Jaggard concluded that these gifted students' social-emotional development was not adversely affected by their subject acceleration — in line with similar evidence from North America.

Grouping together underachieving gifted students or gifted students from special populations

As Graham Chaffey points out, it should not be assumed that newly identified 'invisible' gifted underachievers can immediately be placed into selective settings (such as ability grouped classes) or other 'standard' forms of provision for the gifted.

If the reasons for their previous underachievement include low self-efficacy, metacognitive inefficiencies and gaps in their knowledge base there is an immediate need for these to be addressed specifically. Where numbers permit, this is often best done by grouping together such students for concentrated, focussed programs that address their particular needs.

Competitive classrooms (or those perceived to be) may be stressful for underachievers, if they are seen as providing continual evidence of the student's lack of ability. Avoidance is a commonly used coping strategy by underachievers; hence at the time of their identification they are more likely to want to avoid academic challenges than to welcome them as potential sources of intellectual satisfaction.

Whitmore (1980) argued this in her pioneering work with gifted underachievers. She proposed five main reasons for grouping together gifted underachievers:

- **‘To decrease self-degrading invidious comparisons with high achievers.’** (p. 207) She observed that, far from acting as inspirational role models, high achieving gifted students often intimidated their underachieving gifted peers (presumably reinforcing the underachievers’ low self-efficacy and low self-esteem).
- **‘To develop acceptance of self through acceptance of others with similar problems.’** (p. 208) Through group sharing they gained respect for the worth and the struggles of their underachieving peers. The expectation was that self-acceptance would grow as a result of these insights and that the experience of helping others cope with their struggles would enable gifted underachievers to become more capable of helping themselves.
- **‘To enjoy rewarding intellectual stimulation and a curriculum centred on their strengths and areas of past success.’** (p. 208) She argued that gifted underachievers needed more opportunity to practise, and experience success in, creative thinking and problem solving.
- **‘To acquire a sense of “genuine success”.’** (p. 209) She observed that gifted underachievers, some of whom had a specific disability, needed challenging activities (eg debate, research, experiment) and creative productivity ‘with peers of similar advanced mental age’ (p. 209) if they were to experience the sort of success that leads to self-confidence — and to develop the enhanced academic self-efficacy that we discussed in Extension and Specialisation Modules 4.
- **‘To develop social skills and potential for leadership.’** (p. 209) Whitmore described the gifted underachievers in her study as exceptionally perceptive and sensitive but noted that in their home classes they were perceived by peers as ‘problem students’, isolates/loners, bullies or victims. Grouping them together in a new class removed them from these preconceptions and allowed their teacher to accelerate their socialisation process, through both formal and informal opportunities.

Appropriate curriculum

An appropriate curriculum for the gifted underachiever may need to include a strong emphasis on personal development and life skills that increase the students’ opportunities for self-belief and constructive self-direction. An example of such an approach was the Northern Lights project in Manitoba, Canada. It targeted at-risk gifted students who were underachieving to the point of becoming school drop-outs. To begin the program these students were grouped together in a special class. As McCluskey et al (2000, p. 3) explain:

‘These classes, which ran for one month, featured general workshops (on communication, relationship building, conflict resolution, learning styles, etc), career exploration (through interest inventories, resume writing, job search practice, and interview simulations), and Creative Problem Solving After learning how to use strategies from their CPS “toolbox”, participants developed individual growth plans to map out how they might move from their “current reality” to a more “desired future state”.’

Likewise, Reis et al (2005) conducted a three-year study of economically disadvantaged, culturally diverse, academically gifted high school students, half of whom were achievers and half underachievers — the students' resilience, or lack of it, being one of the issues explored. Among other things, Reis et al (2005, p. 118) concluded that:

'Based on this research, high school counselors or gifted coordinators may consider including the following components that may act as protective factors to help facilitate the development of resilience: after-school and summer programs, time with additional adult counselors and positive role models, more challenging classes, gifted programs, and peer support programs.'

That is, opportunities for participation in appropriately challenging (and supportive) ability grouped settings — along with access to counselling — were recommended.

A trial period?

Just as a trial period is recommended for gifted students who are being accelerated, so it has been suggested (Delisle, 1992, p. 184) that culturally diverse students (and, we would add, underachieving students, whatever their cultural background) be allowed trial participation in special provisions for the gifted, not only to assess their readiness but also as a way of encouraging them to engage in activities and settings that they may otherwise avoid, because of fear of inadequacy or lack of prior experience with them.

A whole-school approach

One major aim of a school's G&T policy and planning should be its commitment to a well coordinated and defensible whole-school approach. Identification and provision will be most effective, and efficient, if class teachers are able to build upon the foundations laid by their peers and able to receive support from more experienced or knowledgeable colleagues when they need it.

Principles underpinning a whole-school approach

Developing a set of principles to guide practice in your school might be a useful starting point. It is important that these are discussed, fully understood and accepted by all members of staff. This is where leadership provided by the Principal, School Executive and/or G&T Coordinator will be very important.



Before reading on, write down what you consider to be important principles to guide a school's policy and practices.

We offer the following as some principles worth considering:

Don't do for students what they can do, or be taught to do, for themselves.

Teachers are already busy people, so finding ways to add to what you offer without adding unduly to your workload is highly desirable.

One school put this principle into practice by having a 'speakers bureau' run entirely by the students, who were responsible for choosing, contacting, welcoming and thanking outside specialists who would visit to share their passion and expertise with gifted or all students within the school.

Jerry Flack's notion of identifying and encouraging 'resident experts' within the student group is another example of this principle in action. Gifted students in particular, though not exclusively, may be encouraged to share and extend their expertise in a specific area, so that peers may learn from (and acknowledge/respect) their talents. It is important that this be done in a way that avoids it becoming exploitation and a denial of the gifted students' own access to new learning; hence, it may be best to allow the resident experts to control the nature and extent of their contributions in this way. Examples of possible resident expert roles are 'student artist in residence', 'local history expert', 'website evaluator' and 'student ethicist'. Note, though, that this strategy may work best if the students are encouraged to nominate their own areas of expertise — and also to suggest ones that the school community would benefit from having.

If you pursue this principle you should help your students to increase their feelings of academic self-efficacy and to develop an internal locus of control (eg attributing their successes to their own efforts and abilities).

Establish links beyond the school.

Community expertise may be enlisted to assist as sources of specialist information, as developers of specific skills, as expert audiences for gifted students' investigations and creations, or as formal mentors.

Have a rolling three-year plan and review it regularly (ie at least annually).

Having a three-year plan enables you to 'start small but think big'. This plan should be a coherent program rather than a set of unconnected provisions.

The foundation of any defensible program will be a range of forms of differentiated provision within each classroom (whether mixed ability or selective). Hence, systematic provision of professional development for class teachers should be built into the school's three-year plan.

The school's plan may also include a range of part-time-withdrawal-based provisions. There is virtue in providing a variety of opportunities — **some** of which may be open to any student who wishes to participate, to provide opportunities for identification of hidden potential — and allowing some cross-age participation, so that younger gifted students have opportunities to mix with older like-minded students.

Make good use of the talents and interests of members of staff.

Encourage teachers to share their own special expertise with like-minded students. Part-time withdrawal programs often operate on this basis and access to online communication options should increase this possibility.

A teacher may find at her school only one or two students who share her area of particular interest or enthusiasm, yet similar young enthusiasts may exist at numerous other schools across her region or state (or nationally). In the near future it is likely that online courses will become more common as a means of linking such otherwise isolated students with teachers who can, and wish to, lead them to explore at highly challenging levels of learning.

See identification as an ongoing, never completed task.

You can never be sure that you have found all underachievers, especially those deliberately playing down their high potential and also the self-doubters, so keep an open mind and invite surprises. While identification should not be thought of, pessimistically, as a corridor of receding mirrors, it is wise to see it as a never-ending process, and one with a diagnostic purpose rather than a labelling one.

Teach skill development, including creative thinking, throughout the school.

You will increase the likelihood of students being able to become independent investigators and communicators if your school develops a schoolwide scope and sequence plan for cumulative skill development. This plan may comprise research skills, communication skills, and social skills.

It seems imperative that it include the development of such online skills as conducting purposeful searches, evaluating the content of web sites, and adhering to discussion 'netiquette'.

Promote the pursuit and recognition of excellence as a school-wide goal.

Encourage diversity and the acceptance of diversity. A school that embraces individuality in its many positive forms — so that differences are not just tolerated but valued and celebrated — will create an environment amenable to talent development.

In an ideal school community gifted students will neither feel threatened by others who resent their particular forms of difference, nor feel a need to retaliate by using negative verbal behaviour as a defence mechanism.



Having read these suggestions, pause to consider whether you wish to add any of them to your own draft list, and whether you now wish to modify your list in any other ways.

The G&T coordinator

Ideally, each school will have someone designated as its G&T coordinator, a role that is a mix of advocacy (eg of well-founded ideas and strategies, of the need for differentiated provision for the gifted) and professional support (eg helping other teachers, addressing some aspects of the needs of gifted students).



In a large school this role warrants some time allowance to enable such contributions to be made. In reality this seems to vary from an hour per week to the G&T coordinator role being funded as a half-time position.



Any coherent, systematic, whole-school approach is much more likely to be effective, and to endure, if it is embedded in the school's structure, budget and professional development plan. By allocating their G&T coordinator some highly visible support — not only open encouragement but also time for fulfilling the role and an ongoing budget (however modest) — Principals can demonstrate their school's genuine commitment to addressing the needs of its gifted and talented students.



While this section, on a whole-school approach, is not intended solely for Principals, it is crucial that you and members of your executive staff take a leadership role if our suggestions are to be evaluated, modified or expanded to suit your circumstances, and then put into practice in your school.

The G&T coordinator's role will vary according to the school's size, the nature of its student body and its approach to the identification of gifts and development of talents. Responsibilities that may be considered desirable, if time permits, include:

- Participation in policy development, perhaps as a member of the school's G&T Committee.

A schoolwide G&T committee can help to share the workload and may include student members and parent/community members, as well as interested, knowledgeable teachers. It is highly preferable that it include the Principal or another senior executive member, to enhance its credibility and authority within the school.

- Testing and placement of students for special grouping and for subject- and grade-acceleration.
- Other aspects of G&T identification and case management: eg students new to the school, underachievement.
- Coordination of pastoral care of G&T students, including advocacy for students, individually and collectively, and strategies for meeting social-emotional needs.

For example, this may involve meeting all accelerated students within the school at least once per month.

- Provision of leadership in differentiated curriculum development (eg by modelling good practice as well as making colleagues aware of new strategies and ideas).
- Organising, in collaboration with school executive, professional development of all staff on definitions, identification, provision and affective support.

The orientation of new staff members to agreed school practices will be important if continuity is to be ensured.

- Coordination of a mentoring program for highly gifted students.
- Coordination of specific extension activities: eg enrichment days, competitions, external courses for gifted students, online provisions.

This may involve overseeing competition coordination by staff members from relevant subject departments (secondary) or Stages (primary).

- Liaison with parents about identification, placement, provision and pastoral care.

Ideally, some form of parent information booklet and/or face-to-face parent information sessions will be provided.



Outline a plan for a whole-school approach to talent development in your school. Consider what is required for it to be adopted.



Outline, and discuss with colleagues, a plan for a whole-school approach to talent development in your school. Try to reach consensus on what is required for it to be adopted.



Outline, and discuss with colleagues if appropriate, a plan for a whole-school approach to talent development in your school. **Consider** what is required for it to be adopted and what your leadership role(s) will be to ensure its acceptance and success.

Part 2

Maths and acceleration

Because of the nature of the subject matter it has been suggested that students gifted in mathematics can have their high potential most economically developed via acceleration. While there will be individual differences in this, it has also been found that such students often prefer faster paced, more challenging learning. For example, Diezmann and Watters (2000) report Julian Stanley as finding that:

‘Figuratively, they [gifted students] were starved for mathematics at the proper pace and level and rejoiced in the opportunity to take it straight rather than being “enriched” with math puzzles, social studies discussions, trips to museums, critical thinking training not closely tied to mathematics, and so forth.’

Many of the studies analysed by Karen Rogers to show the academic value of subject acceleration were done in the area of maths.

As we discussed previously (in Specialisation Module 1), one of the most noteworthy programs for mathematically gifted students has been the Study of Mathematically Precocious Youth (SMPY), begun by Julian Stanley at Johns Hopkins University.

In their study of 320 profoundly gifted SMPY students — those who by age 13 had scored in at least the top 1 in 10,000 in either mathematical reasoning ability or verbal reasoning ability — Lubinski, Webb, Morelock and Benbow (2001, p. 720) found that:

‘an overwhelming majority of participants (95%) took advantage of various forms of academic acceleration in high school or earlier to tailor their education to create a better match with their needs. ... Most participants (71%) were satisfied with the level of acceleration they experienced. Of those who did not indicate satisfaction with their acceleration experiences, the majority indicated that they would have preferred to have been accelerated even more, not less.’

Several of the examples cited below, in our discussions of radical acceleration and early tertiary entry, involve students whose exceptional ability was in maths.

We are not suggesting that acceleration should be the only form of provision for students gifted in maths; our point is that it is often viewed favourably by such students — meeting their need for advanced and fast-paced learning — and that research evidence is supportive of its appropriateness. Therefore, it deserves full consideration when you are deciding what form(s) of provision are best for any particular student whose giftedness includes maths.

Radical acceleration considerations

Radical acceleration is generally said to have occurred when a gifted student finishes school three or more years earlier than age peers (Gross & van Vliet, 2003).



In Core Module 6 we cited the case of 'Michael', a profoundly gifted student who was radically accelerated into university (the University of New South Wales) at age 15, after completing Year 9 at his state high school — ie grade skipping three Years. He was a classic example of Robinson and Weimer's (1991, p. 38) observation that 'In very bright children ... social skills may appear "retarded" when in fact they have had no intellectual peers with whom to share play interests or conversation.' At university Michael found both intellectual stimulation that matched his readiness and opportunities for social interaction with like-minded people. After his first year at university he wrote:

‘Often people who comment on such schemes seem worried that such acceleration may cause social problems. I have found the reverse. In high school I was despised by most of my peers for not fitting into the norm, whereas at university there are many more people who share my interests. Generally, my age, if they ever find it out, is not a great problem in my relations with them. One of the things that became patently obvious to me this year is how utterly frustrated I was at high school. Despite the great cooperation of many teachers, I find that when I look back on life at [high school], it appears as one great stretch of misery. In summary, I feel that the acceleration has been a great success academically, and socially.’

Thus, radical acceleration may be said to have enabled Michael to avoid remaining a **social underachiever**.

At high school he was also a chronic underachiever in humanities subjects. When he was accepted into UNSW some of his former teachers predicted that he would not succeed because UNSW required its BSc students to complete two humanities/Arts subjects in their degree and at high school he was perceived to be a student who ‘could not write’. In fact, Michael attained results of Credit and Distinction in his two humanities subjects, not as stellar a performance as in his maths subjects but a clear indication that he had above average potential in these areas. His performance at school — interpreted as ‘he could not write’ — was in reality a case of his **choosing** not to write, presumably because he found the content uninteresting or unchallenging. Here is further evidence that we should not judge a bookworm by his or her cover!

The advice in Core Module 6 on the **process** of implementing acceleration is even more crucial when considering radical acceleration. The following advice should also be considered:

- As Michael’s case above illustrates, academic and/or social underachievement may well be signs of the need for radical acceleration — rather than reasons for deeming it inappropriate — where highly gifted students are concerned. Hence, the importance of determining levels of giftedness and of following up any indication of high potential, even if it seems to be only in a single domain.

Research suggests that radical acceleration is very much more likely to be appropriate, and to be effective, with exceptionally and profoundly gifted students (IQ 160+) than with those less unusually able, eg the moderately gifted.

- It is usually recommended that radical acceleration be spaced out as a number of single grade skips throughout the student’s schooling rather than as a single multi-grade skip. While Michael’s case provides a contrary example, in hindsight it may be seen that he would have benefited from acceleration much earlier in his school career — eg when he was found to be capable of Year 8 maths when in Year 5 and almost certainly earlier than that, in his early childhood phase.

An example of multiple-step radical acceleration was the boy in the ACT who had skipped three Years by the time he was in his first year at high school (and was expected to skip another) — starting school in Year 1 (ie skipping Kindergarten altogether), then accelerating from Year 1 to Year 3, and later skipping from Year 5 to Year 7.

The final year of primary schooling or the first year of secondary schooling is often a good time for a grade skip because of schools' tendency to revise and consolidate previous learning during that first year of high school.

This multiple-step acceleration allows the school to assess the student's capacity to cope with the acceleration before deciding whether, and if so when, another grade skip is appropriate. In Stage-based systems it may mean that a highly gifted student spends only one Year, rather than two, in two or more of the Stages — a recognition of her rapid pace of learning and advanced knowledge base.

- To reiterate a point made above, a child who is likely to benefit from radical acceleration should be started on this process from a young age. The girl in the following example (Kearney, 1993, p. 16) seems likely to be such a candidate:

'Cindy, whose reading taste at age four included the works of Laura Ingalls Wilder and Madeleine L'Engle, sat on the rug during Circle Time at her preschool with her mother, who was volunteering in the classroom that day. The teacher began reading a familiar, beautifully illustrated alphabet book to the children, naming the letters as she read.

Cindy leaned over to her mother, realizing the full import of this familiar activity for the first time. She whispered to her mother incredulously, "She's trying to teach them their letters, isn't she, Mom? They don't know letters yet!"

- Radical acceleration can help a highly gifted child appreciate the full extent of his potential and thus why he has always felt different from age peers. One Australian parent, of a child who was successfully subject-accelerated in maths from Year 6 into Year 10, commented that:

'from the time he was radically accelerated in Maths, James realised how much brighter he was (in some subjects at least) than many of his age peers. Up till this point he was acutely aware of being different, but the difference always had only negative connotations. Now he could see that he was easily able to cope with this advanced work and it gave him some concept of where he fitted in the overall scheme of things.'
(Townsend, 1996)

She added that 'in James' case the best thing which ever occurred in his school career was being radically accelerated in Maths'.

- In her Australian study of exceptionally gifted students Miraca Gross (2004) found that the most effective educational programs provided for these students had been those designed through the close cooperation of the school, the parents and the student. Parents are often as reluctant as teachers to agree to having a child skip more than one grade. Therefore, this three-way communication and decision making is essential when radical acceleration is being considered and planned. It needs to begin well before the decisions is made and to be ongoing, since radical acceleration is likely to be implemented in a number of small steps over several years.

- Gross (2004, p. 281) also found that ‘in every case’ the students in her study who were radically accelerated had not only achieved outstanding academic success but also had found what she termed ‘the “sure shelter” of a warm and supportive friendship group’ — ie, through their access to children at similar stages of cognitive and affective development, rather than being restricted to contact with age-peers. This positive evidence should be shared with students considered for radical acceleration (and their parents), especially if they are reluctant to agree to it even though the school’s professional judgement is that it seems the best option.



- A suggestion worthy of further investigation is Nancy Robinson’s (2004) observation that:

‘In my experience, one-year acceleration in elementary or secondary school often leaves a student looking immature but otherwise not distinguished from classmates. With two years or more of acceleration, the age difference is differentiable, so that the student is more likely to be identified as “young” rather than “immature”, seen on his or her own terms rather than by rigid age-grade expectations.’

Factors associated with successful radical acceleration

Gross and van Vliet (2003) report the following as variables that the research evidence shows to be related to successful radical acceleration:

- Personal characteristics of the student — eg their motivation to achieve, persistence and passion for advanced learning; their acquisition of advanced study skills.
- Involving the student in educational planning — ie ensuring that they are supportive of the strategies to be used and believe that the benefits of these will outweigh any regrets about missed opportunities (social, creative or sporting).
- Supportive family — eg encouraging; willing to allow their children greater independence despite their young age + being kept informed about the process of radical acceleration and any associated counselling / pastoral care.
- Supportive educators — eg long-term critical planning, monitoring and mentoring by a well-informed educator.
- Individualised acceleration planning — eg access to a variety of acceleration options, and consideration of the optimum timing for using whichever seem to suit the particular individual.
- A flexible approach to teaching and learning — eg adjusting the individual's plan as needs and circumstances change.
- Programming to support the affective needs of students — eg addressing the need for interaction with like-ability, like-minded peers; providing counselling / pastoral care support before and during the acceleration process.
- Opportunities to develop skills for advanced study — eg the skills of effective note-taking, essay/assignment writing and time management.

Early entry to tertiary education

Is it effective?

The successful case of ‘Michael’ (above) demonstrates that early entry to tertiary education can be a highly appropriate way of addressing the needs of highly gifted students.

However, a recent Australian report (Figgis et al, 2002, p. 5) found there to be

‘little, if any, reliable evidence of the outcomes for school, universities or the system as a whole, or of the way(s) in which these arrangements actually benefit the students involved.’

Perhaps more surprising is their finding that while some students use the credit earned during high school to accelerate their subsequent university studies the vast majority ‘appear not to be interested in accelerating their university course’ while for many students ‘the university subject studied at school is not particularly relevant to their intended degree’ (Figgis et al, 2002, p. ix). In such cases the acceleration is providing a form of enrichment, presumably, as well as an opportunity to explore tertiary-level study.

Fortunately, there is considerable research (and anecdotal) evidence available from North America (eg Olszewski-Kubilius, 1995), some of which is summarised below:

- The academic performance of early tertiary entrants is impressive. They attain higher grades than other students, are more likely to complete university and to do so on time, and are more likely to become recipients of prizes or other honours.

Nevertheless, there are some underachievers and some drop-outs, though the numbers of these tend to drop as programs become better established (eg providing better counselling and other support, or employing more stringent selection procedures).

- There is much less conclusive evidence on how well early tertiary entrants fare socially and emotionally. However, there is evidence that students generally felt positive about their peer relationships at university.

The student’s social experiences as an early entrant to university will vary according to whether she is a gregarious extravert or a quiet introvert, among other things. Nevertheless, Wright (2001, p. 7) reports that:

‘So many parents find their profoundly gifted children blossom in college. For the first time, they are able to befriend people interested in their favourite subjects.’

On the other hand, Swiatek (2002) notes that ‘some students who are radically accelerated approach school as a solely academic activity, and look to other settings for social interaction’ which parents can encourage ‘by providing their children with opportunities for involvement in extracurricular activities’.

Furthermore, while it may be counterintuitive, ‘several parents have indicated that their highly gifted children are happier and they have more time to “be kids” after enrolling’ as early tertiary entrants.

- As has been found elsewhere when gifted students move into more challenging academic settings, a decrease in self-esteem has been reported but it tends to be small and usually temporary in nature.
- Few early tertiary entrants express regrets about their decision.
- Most used in very productive ways the extra time they gained by early entry to university, generally progressing to postgraduate study.

Olszewski-Kubilius (1995) concluded with the advice that:

‘Students can also prepare for the experience by obtaining early career counseling and by developing interests that will be the basis of new friendships. Most important, the decision to enter college early should be primarily the student’s but once made, families need to be supportive and to recognize that despite their child’s extreme ability, there will be challenges and disappointments, but also a great deal of positive growth.’

What forms does it take?

- It can involve radical acceleration, as in Michael’s case, where a carefully screened student skips several grades at once, to begin university study without completing the senior years of high school. However, this form remains relatively rare in Australia.
- Dual enrolment can mean that a student is undertaking secondary courses while still in primary school (as happened with Terry Tao who was capable of Year 10 maths when a 7-year-old) or it can mean that a gifted student is allowed to enrol in a university subject (or several) while still at school.

The expansion within the Australian university sector of distance education provisions, especially online teaching, is creating more opportunities for gifted school students to take up this option, regardless of their location. For example, Peter Merrotsy (2002, 2003) has documented a variety of instances of this involving students at a small, relatively isolated rural high school in NSW.

However, the distance education mode of learning does require considerable self-discipline on the part of the student and feedback may sometimes seem very slow, so it is desirable that a teacher at the student’s school accept the role of local mentor/tutor for the duration of the university study.

If the student’s school is close enough to a university attending face-to-face classes is an alternative and a particularly desirable one for subjects with significant practical components.

Arranging transport and the timetable so that attendance at university classes is possible are tasks that the school should manage.

In the case of Andrew, who began a science degree specialising in computing when in Year 9 (aged 14), he attended university classes during the afternoon set aside for school sport. Wisely, Andrew was encouraged to conduct an analysis of the positives and negatives of attending university before he agreed that he would like to attempt it. He achieved a High Distinction in his first subject there, a second year elective. When invited to reflect on the experience Andrew mentioned that he had made ‘some good friends at University’ and commented that:

‘The school has been very supportive, particularly the Gifted and Talented Coordinator. She has helped me organise everything with the University and determine what subjects would fit in with my school timetable, as well as helping me to determine what subjects may be suitable. I like to keep a low profile at school and don’t make a big deal about going to University. The school has been helpful here in keeping my publicity to a minimum.’ (Irwin, 1998, p. 22)

- Dual enrolment has the advantage of easing a young gifted student into tertiary study. In effect, it acts as a form of trial of whether tertiary coursework is the best (acceleration) option for an individual student at a particular time. If successful it may lead to further dual enrolment or to a move into full-time tertiary study.

How easy is it to arrange?

Not yet as easy as it should be, though this is changing. At the time of their survey in 2001, Figgis et al (2002) found that 23 of the 37 (out of Australia’s 39) universities that responded offered some form of early entry or university credit option.

They also found that in most cases these options were provided without cost to the accelerated students, though the issue of ‘who pays?’ remains to be resolved formally and consistently (and fairly) across the university sector as a whole.

As long ago as 1977 Halbert Robinson founded an Early Entrance Program at the University of Washington that was designed for much younger students than most previous programs for early tertiary entrants (students typically being under the age of 14 at entry). A significant aspect of it was its provision of extensive social, emotional and academic support for the young gifted students. This included having enough students to provide a ‘peer group’ of early entrants, structured and unstructured meetings of this group of students for at least the first year of full-time university involvement, a common-room to use as a ‘home base’, a transition year to ease them into full-time university study (which addresses possible gaps in their knowledge base, among other things) and ongoing counselling support (Brody & Stanley, in Southern & Jones, 1991).

Who will benefit from it?

Whether a particular university provides support for early entrants will be one consideration for their parents and the teachers advising them when a decision is being made about whether, and if so where, to enrol a young gifted student, especially if this is to be on campus and full-time rather than by distance education or part-time.

Based on her personal involvement in it and her analysis of the research evidence, Nancy Robinson (2004) reached the following conclusions about early tertiary entry:

- It may suit those highly gifted older (usually teenage) students for whom it provides the 'optimal match'. 'Essentially, children learn best what they're ready for, or almost ready for, and what gives them a bit of a stretch — not so much that they find it aversive, not so little that they're bored.'
- It may not be the best option for 'poorly focused students or students who have competing agendas such as team sports, family conflicts to survive, or delayed puberty'.
- Students' motivation usually rises when the optimal match occurs but some gifted students who have been really turned off previously by an underchallenging educational system may not respond as hoped to this form of provision.
- It can help gifted students escape pressure to 'be like everyone else'. The girls and young women in the University of Washington program report 'that they, in particular, feel empowered as never before to find their own identities and social roles'.



Draft a plan for how your school can best deal with gifted students who may benefit from radical acceleration (which may include early entry to school). Include details of the process and of who will be responsible for the various components of this process. Discuss your plan with other teachers and refine it in light of their comments.



Draft a plan for how your school can best deal with gifted students who may benefit from radical acceleration (which may include early entry to school). Include details of the process and of who will be responsible for the various components of this process. Consider what your leadership role will be — in having this plan accepted by the other members of your staff, and in its implementation, monitoring and evaluation.

Where To From Here?

In 2002 the American National Association for Gifted Children published *The social and emotional development of gifted children: What do we know?* a book of 24 chapters written by leading international researchers and focussing on different aspects of the socio-affective development of gifted children and adolescents.

We have reproduced here, with permission of the publisher, the closing section of this book which discusses what our schools and our societies must do if intellectually gifted students are to be educated in an emotionally secure environment.

‘The notion that some people can be “too smart for their own good” permeates contemporary society and creates a social climate in which intellectual and creative efforts by children and adults are undervalued. One consequence of anti-intellectualism has been a damaging tendency on the part of gifted children to deny their talents and try desperately to become “just like everyone else”. In a society in which all citizens should be respected and welcomed for who they are and what they can contribute to others, respect for individuality and appropriate resources must be provided to gifted and talented youth, as well as to others. Positive change will ensue if we create an open climate for the development and support of gifts and talents.

- Understanding will be enhanced that giftedness does not **inherently** bring with it increased social and emotional vulnerability. Problems do not occur simply because a child demonstrates gifts and talents, and they must be understood in a broader context.
- National efforts to increase the availability of a variety of appropriate instructional and out-of-school provisions must be a high priority since research indicates that many of the emotional and social difficulties gifted students experience disappear when their educational climates are adapted to their level and pace of learning. Among such educational provisions should be opportunities for academic acceleration and enrichment, together with opportunities for gifted children to find companions of similar maturity, interests and commitments to develop their gifts and talents. Too many schools across the country actively discourage, or even prohibit, capable students from moving through the curriculum at a pace commensurate with their abilities. Sadly, too, many schools maintain practices that prevent gifted students from working with others of similar ability for all but a couple of hours a week.
- Wider acceptance of the value of high attainment will create an atmosphere that rewards students’ best efforts and their courage in the face of life’s challenges. These two components are essential to the fulfilment of promise.
- Opportunities should be provided for adults — particularly parents, teachers and counsellors, and potential mentors — to enhance their skills at recognising talent and responding effectively to the social and emotional needs of gifted and talented students in a variety of ways. This will lead to the creation of an informed cohort of adults who can support and counsel gifted students as needed and can nip in the bud many potential problems before they fester.’ (Robinson, Reis, Neihart & Moon, 2002, pp. 286-287).

What can your school do to put these principles into practice?

- Encourage all your colleagues to use this Professional Development Package. Some schools have trained their entire staff using the Core Level of the Package and we have had wonderful feedback on how this has changed both attitudes and practices within the schools.
- Encourage those staff members who have particularly enjoyed the Package to investigate further training in gifted education. A number of universities across Australia now offer Master of Education subjects in gifted education or even full MEd degree programs specialising in gifted education. Some universities offer this by distance education. In addition, the writers of this Professional Development Package are available to conduct inservice activities for schools and regions in any area of Australia. Contact the Gifted Education Research, Resource and Information Centre (GERRIC) on (02) 9385 1972.
- Provide appropriate education choices for the gifted students in your school. ‘No single strategy or setting will fit the needs of every gifted child, but the ordinary classroom, maintaining the usual status quo, will fit the needs of none’ (Robinson, Reis, Neihart & Moon, 2002, p. 282).
- Actively look for students who would benefit from one or more of the many types of acceleration which have been described in Module 6 and elsewhere in this Package. Properly planned and monitored, acceleration does not cause social or emotional difficulties for gifted students. By contrast, retention with age-peers in the mixed ability classroom without access to curriculum set at an appropriate level or pace and without the companionship of students who are at similar developmental levels intellectually and emotionally, may well do so.
- Put in place, in your school, some of the forms of ability grouping which have been described and discussed in this Package. Gifted students in ability grouped settings achieve, academically, at higher levels than do ability-peers in mixed-ability classes, and they also develop happier social relationships and a better acceptance of their own abilities.
- Help gifted students develop resilience. Assist them to value and develop their own strengths — but ensure that this does not translate into leaving them with most of the responsibility for this. No student, no matter how talented, should bear the weight of a responsibility which is rightfully the school’s.
- Work with colleagues to change the culture of your school where that culture does not promote and facilitate the needs of all students, including the gifted. Remember that gifted students are found within all cultural, ethnic and social groups. Promote acceptance and respect for gifted students and also encourage in your staff ‘the willingness to make the relatively small investments (gifted students) need for what is potentially an enormous pay-off’ (Robinson, et al, 2002, p. 283).



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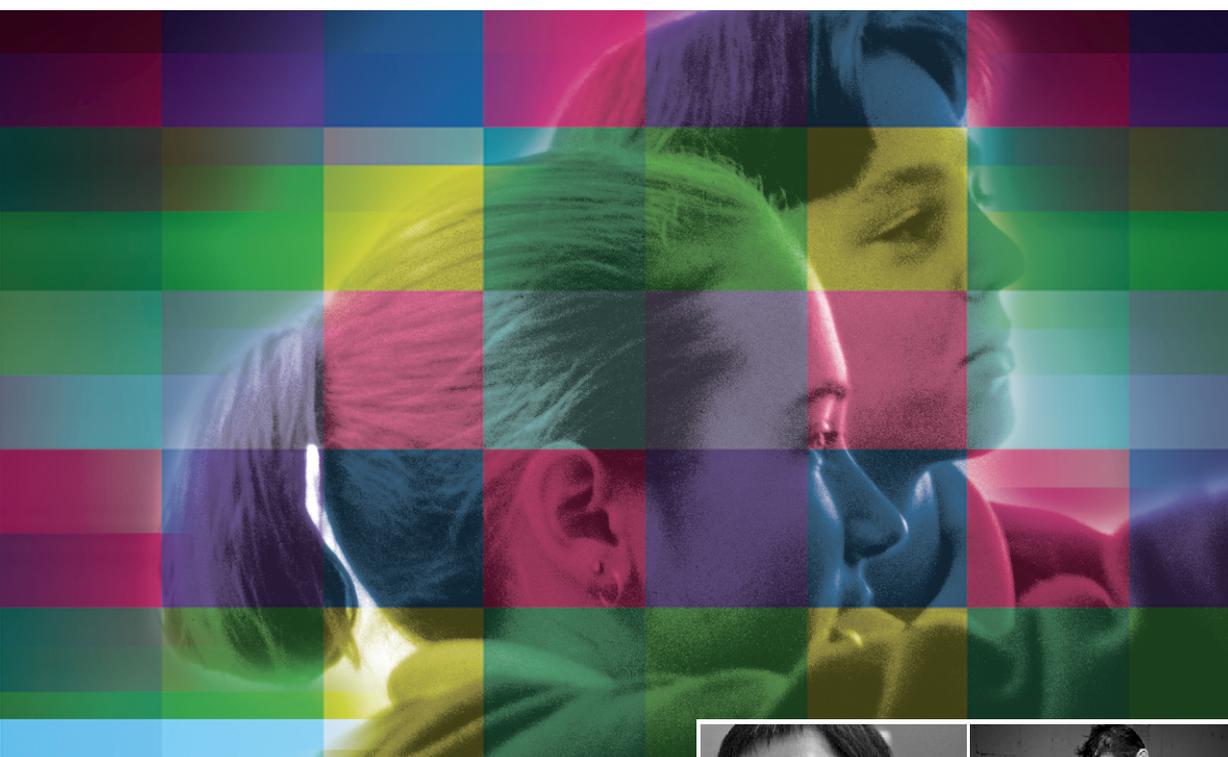
<http://www.nationdeceived.org>

[A copy of the 2004 report on acceleration, *A nation deceived: How schools hold back America's brightest students*, which provides a detailed synthesis of the major research on acceleration.]

GIFTED AND TALENTED EDUCATION
PROFESSIONAL DEVELOPMENT PACKAGE FOR TEACHERS

SPECIALISATION

Module 6



Secondary



Stan Bailey

Module 6

Other Issues in Developing Programs and Provisions
for Gifted Students

Welcome to Specialisation Module 6, the final Module for this Professional Development Course. In it we will discuss other aspects of acceleration and grouping, including cultural considerations, radical acceleration, and early entry to tertiary education. The important issue of planning a whole-school approach to addressing the needs of the gifted will also be analysed, as will the support role that can be played by a school's gifted and talented education coordinator.

Stan Bailey

Specialisation Module 6: Secondary

Other Issues in Developing Programs and Provisions for Gifted Students

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Outcomes

At the completion of this Module you will:

- understand the potential positives in grouping together underachieving students or students from special populations.
- be aware of principles to guide the development of a whole-school approach to identification and provision, including grouping and acceleration.
- have a fuller understanding of specific issues to consider when deciding whether and how to implement acceleration, including radical acceleration of the highly gifted and early entry to tertiary education.

Part 1

Age / gender / cultural issues associated with grouping and acceleration

Cultural considerations

As we discussed in the various levels of Module 4, children from cultures that are minorities within any society are likely to be underrepresented in special provisions for the gifted and talented, and that is even more likely if they are from low-income families (Frasier, 1993; Tomlinson, Callahan & Lelli, 1997; Ford, Moore & Milner, 2005). Reasons for this include the use of inappropriate (ie culturally insensitive) methods of identification and the students' inability or unwillingness to respond positively to teaching that does not closely match their cultural values or learning styles.

As we reported in Core Module 6, one secondary teacher (and G&T coordinator) arranged a weekly meeting with the small group of grade-skipped students in his Sydney school to enable them to discuss — with each other and with him — their progress and any matters of concern. There may be value in other schools making similar arrangements for their culturally diverse gifted students, to encourage them to act as a support group for each other and to provide regular access to a teacher who is seen to be 'on their side'. Ford (1996, p. 81) cites an example in the USA where a teacher organised a midday discussion group for gifted students which addressed 'stress, personality styles, testing, recognizing strengths and weaknesses, family conflicts, career concerns, and relationships'. Butler-Por (1994, p. 222) states that this demonstration of teacher support is 'most important for creating emotional security, which constitutes an essential condition for overcoming underachievement'.

If such regular group 'counselling' meetings of gifted students from culturally diverse backgrounds are helpful their organisation ought not be left to the initiative of individual teachers (whose departure from the school may mean that the support ceases) but should be built into your whole-school plan.

Ability grouping vs mentoring

Members of some culturally diverse groups may consider mentoring to be more compatible with their cultural beliefs and values than selective classes or schools. It has been pointed out (Peterson, 1999, p. 374) that 'the values of nonmainstream groups apparently often do not encourage individual, competitive, conspicuous achievement' — hence the members of such groups may either be overlooked for, or may eschew, selective settings.

However, one research study in NSW provides evidence that this is not necessarily the case. Taylor (Vasilevska, 2001, p. 27) interviewed students, their parents and their teachers from 15 disadvantaged government schools, finding that:

‘the perception that parents from Aboriginal and Torres Strait Islander, Arabic speaking and Pacific Islander background did not value ability grouping provisions such as selective high schools and OC classes [ie full-time upper primary classes for the gifted] could not be substantiated.’

Hence, teachers should avoid basing on stereotypes or unjustified preconceptions their decisions about what forms of provision are most appropriate for, and acceptable to, culturally diverse gifted students. As we stressed in Specialisation Module 4, close consultation and open communication with your school’s parents and wider community are important components of your planning process if it is to be culturally sensitive and inclusive.

That said, some cultures have traditionally had an approach similar to mentoring as their way of dealing with highly able children — eg ‘traditional Maori methods of education, where children who displayed ability and interest in a particular field were often taken under the wing of a tohunga or expert and given private tuition’ (Taylor, 1996, p. 401) — so it warrants particular consideration as a strategy, whatever else you may include in your whole-school plan.

One way of providing culturally different students with emotional as well as academic support is to provide them with mentors and role models from within their own culture who are ‘confident, personally secure, and academically and professionally successful’ (Ford, 1995, p. xiv).

In the case of gifted students from culturally different backgrounds, a mentor from within the same cultural group can be a role model for dealing with the challenges specific to being a member of that subculture within a culturally diverse society. In some instances this may lead to raised aspirations for school and beyond, as well as coping with any negative pressures to underachieve for peer affiliation reasons. Davis and Rimm (1998, p. 304) assert that ‘all other treatments for underachievement dim in importance compared with strong identification with an achieving model’.

While a common cultural identity may add an extra dimension of empathy to a mentoring relationship it is not always essential, so long as the mentor is sensitive to and respectful of the culture of his or her ‘apprentice’. The crucial thing is their shared passion for an activity or domain of learning. Delisle (1999, p. 242) observes that:

‘Mentor relationships tend to be especially effective ... for economically disadvantaged gifted youth, who may need the opportunity to see possibilities that exist outside of the limited domain of their neighborhoods’

Because of its individual focus, in most cases, mentoring has the potential to provide the gifted student with fast-paced learning, so can become a form of acceleration — and perhaps an informal ‘trial’ for other types of acceleration — for the mentee.



An Australian research study on acceleration

One noteworthy study of acceleration in the Australian context is that of Kim Jaggard (2000), on ‘Student perceptions of subject acceleration in NSW secondary schools’. His research sample comprised 1,283 students, with an average age of 14.5 and almost equal numbers of boys and girls. His findings included:

- The students felt that the teachers’ reception of their acceleration was ‘grudging’ in only 2% of cases — an encouraging indication of growing recognition of the merit of this form of acceleration.
- A sizeable proportion of the students acknowledged that they had fears about the acceleration prior to its commencement — 34% of the boys and 57% of the girls. However, only 21% of the boys and 35% of the girls reported that what they had fears about had actually occurred.
- When asked whether the subject acceleration had led to teasing by peers a somewhat reassuring 86% said no — though there is no cause for complacency here, given that 14% answered in the affirmative.
- Very few of the students said that they would have preferred to have stayed with their age peers — a mere 7% of a subgroup of 291 asked about this.
- There was found to be little gender difference in the students’ self-esteem.
- Jaggard concluded that these gifted students’ social-emotional development was not adversely affected by their subject acceleration — in line with similar evidence from North America.

Grouping together underachieving gifted students or gifted students from special populations

As Graham Chaffey points out, it should not be assumed that newly identified ‘invisible’ gifted underachievers can immediately be placed into selective settings (such as ability grouped classes) or other ‘standard’ forms of provision for the gifted.

If the reasons for their previous underachievement include low self-efficacy, metacognitive inefficiencies and gaps in their knowledge base there is an immediate need for these to be addressed specifically. Where numbers permit, this is often best done by grouping together such students for concentrated, focussed programs that address their particular needs.

Competitive classrooms (or those perceived to be) may be stressful for underachievers, if they are seen as providing continual evidence of the student's lack of ability. Avoidance is a commonly used coping strategy by underachievers; hence at the time of their identification they are more likely to want to avoid academic challenges than to welcome them as potential sources of intellectual satisfaction.

Whitmore (1980) argued this in her pioneering work with gifted underachievers. She proposed five main reasons for grouping together gifted underachievers:

- **'To decrease self-degrading invidious comparisons with high achievers.'** (p. 207) She observed that, far from acting as inspirational role models, high achieving gifted students often intimidated their underachieving gifted peers (presumably reinforcing the underachievers' low self-efficacy and low self-esteem).
- **'To develop acceptance of self through acceptance of others with similar problems.'** (p. 208) Through group sharing they gained respect for the worth and the struggles of their underachieving peers. The expectation was that self-acceptance would grow as a result of these insights and that the experience of helping others cope with their struggles would enable gifted underachievers to become more capable of helping themselves.
- **'To enjoy rewarding intellectual stimulation and a curriculum centred on their strengths and areas of past success.'** (p. 208) She argued that gifted underachievers needed more opportunity to practise, and experience success in, creative thinking and problem solving.
- **'To acquire a sense of "genuine success".'** (p. 209) She observed that gifted underachievers, some of whom had a specific disability, needed challenging activities (eg debate, research, experiment) and creative productivity 'with peers of similar advanced mental age' (p. 209) if they were to experience the sort of success that leads to self-confidence — and to develop the enhanced academic self-efficacy that we discussed in Extension and Specialisation Modules 4.
- **'To develop social skills and potential for leadership.'** (p. 209) Whitmore described the gifted underachievers in her study as exceptionally perceptive and sensitive but noted that in their home classes they were perceived by peers as 'problem students', isolates/loners, bullies or victims. Grouping them together in a new class removed them from these preconceptions and allowed their teacher to accelerate their socialisation process, through both formal and informal opportunities.

Appropriate curriculum

An appropriate curriculum for the gifted underachiever may need to include a strong emphasis on personal development and life skills that increase the students' opportunities for self-belief and constructive self-direction. An example of such an approach was the Northern Lights project in Manitoba, Canada. It targeted at-risk gifted students who were underachieving to the point of becoming school drop-outs. To begin the program these students were grouped together in a special class. As McCluskey et al (2000, p. 3) explain:

'These classes, which ran for one month, featured general workshops (on communication, relationship building, conflict resolution, learning styles, etc), career exploration (through interest inventories, resume writing, job search practice, and interview simulations), and Creative Problem Solving After learning how to use strategies from their CPS "toolbox", participants developed individual growth plans to map out how they might move from their "current reality" to a more "desired future state".'

Likewise, Reis et al (2005) conducted a three-year study of economically disadvantaged, culturally diverse, academically gifted high school students, half of whom were achievers and half underachievers — the students' resilience, or lack of it, being one of the issues explored. Among other things, Reis et al (2005, p. 118) concluded that:

'Based on this research, high school counselors or gifted coordinators may consider including the following components that may act as protective factors to help facilitate the development of resilience: after-school and summer programs, time with additional adult counselors and positive role models, more challenging classes, gifted programs, and peer support programs.'

That is, opportunities for participation in appropriately challenging (and supportive) ability grouped settings — along with access to counselling — were recommended.

A trial period?

Just as a trial period is recommended for gifted students who are being accelerated, so it has been suggested (Delisle, 1992, p. 184) that culturally diverse students (and, we would add, underachieving students, whatever their cultural background) be allowed trial participation in special provisions for the gifted, not only to assess their readiness but also as a way of encouraging them to engage in activities and settings that they may otherwise avoid, because of fear of inadequacy or lack of prior experience with them.

A whole-school approach

One major aim of a school's G&T policy and planning should be its commitment to a well coordinated and defensible whole-school approach. Identification and provision will be most effective, and efficient, if class teachers are able to build upon the foundations laid by their peers and able to receive support from more experienced or knowledgeable colleagues when they need it.

Principles underpinning a whole-school approach

Developing a set of principles to guide practice in your school might be a useful starting point. It is important that these are discussed, fully understood and accepted by all members of staff. This is where leadership provided by the Principal, School Executive and/or G&T Coordinator will be very important.



Before reading on, write down what you consider to be important principles to guide a school's policy and practices.

We offer the following as some principles worth considering:

Don't do for students what they can do, or be taught to do, for themselves.

Teachers are already busy people, so finding ways to add to what you offer without adding unduly to your workload is highly desirable.

One school put this principle into practice by having a 'speakers bureau' run entirely by the students, who were responsible for choosing, contacting, welcoming and thanking outside specialists who would visit to share their passion and expertise with gifted or all students within the school.

Jerry Flack's notion of identifying and encouraging 'resident experts' within the student group is another example of this principle in action. Gifted students in particular, though not exclusively, may be encouraged to share and extend their expertise in a specific area, so that peers may learn from (and acknowledge/respect) their talents. It is important that this be done in a way that avoids it becoming exploitation and a denial of the gifted students' own access to new learning; hence, it may be best to allow the resident experts to control the nature and extent of their contributions in this way. Examples of possible resident expert roles are 'student artist in residence', 'local history expert', 'website evaluator' and 'student ethicist'. Note, though, that this strategy may work best if the students are encouraged to nominate their own areas of expertise — and also to suggest ones that the school community would benefit from having.

If you pursue this principle you should help your students to increase their feelings of academic self-efficacy and to develop an internal locus of control (eg attributing their successes to their own efforts and abilities).

Establish links beyond the school.

Community expertise may be enlisted to assist as sources of specialist information, as developers of specific skills, as expert audiences for gifted students' investigations and creations, or as formal mentors.

Have a rolling three-year plan and review it regularly (ie at least annually).

Having a three-year plan enables you to 'start small but think big'. This plan should be a coherent program rather than a set of unconnected provisions.

The foundation of any defensible program will be a range of forms of differentiated provision within each classroom (whether mixed ability or selective). Hence, systematic provision of professional development for class teachers should be built into the school's three-year plan.

The school's plan may also include a range of part-time-withdrawal-based provisions. There is virtue in providing a variety of opportunities — **some** of which may be open to any student who wishes to participate, to provide opportunities for identification of hidden potential — and allowing some cross-age participation, so that younger gifted students have opportunities to mix with older like-minded students.

Make good use of the talents and interests of members of staff.

Encourage teachers to share their own special expertise with like-minded students. Part-time withdrawal programs often operate on this basis and access to online communication options should increase this possibility.

A teacher may find at her school only one or two students who share her area of particular interest or enthusiasm, yet similar young enthusiasts may exist at numerous other schools across her region or state (or nationally). In the near future it is likely that online courses will become more common as a means of linking such otherwise isolated students with teachers who can, and wish to, lead them to explore at highly challenging levels of learning.

See identification as an ongoing, never completed task.

You can never be sure that you have found all underachievers, especially those deliberately playing down their high potential and also the self-doubters, so keep an open mind and invite surprises. While identification should not be thought of, pessimistically, as a corridor of receding mirrors, it is wise to see it as a never-ending process, and one with a diagnostic purpose rather than a labelling one.

Teach skill development, including creative thinking, throughout the school.

You will increase the likelihood of students being able to become independent investigators and communicators if your school develops a schoolwide scope and sequence plan for cumulative skill development. This plan may comprise research skills, communication skills, and social skills.

It seems imperative that it include the development of such online skills as conducting purposeful searches, evaluating the content of web sites, and adhering to discussion 'netiquette'.

Promote the pursuit and recognition of excellence as a school-wide goal.

Encourage diversity and the acceptance of diversity. A school that embraces individuality in its many positive forms – so that differences are not just tolerated but valued and celebrated – will create an environment amenable to talent development.

In an ideal school community gifted students will neither feel threatened by others who resent their particular forms of difference, nor feel a need to retaliate by using negative verbal behaviour as a defence mechanism.



Having read these suggestions, pause to consider whether you wish to add any of them to your own draft list, and whether you now wish to modify your list in any other ways.

The G&T coordinator

Ideally, each school will have someone designated as its G&T coordinator, a role that is a mix of advocacy (eg of well-founded ideas and strategies, of the need for differentiated provision for the gifted) and professional support (eg helping other teachers, addressing some aspects of the needs of gifted students).



In a large school this role warrants some time allowance to enable such contributions to be made. In reality this seems to vary from an hour per week to the G&T coordinator role being funded as a half-time position.



Any coherent, systematic, whole-school approach is much more likely to be effective, and to endure, if it is embedded in the school's structure, budget and professional development plan. By allocating their G&T coordinator some highly visible support — not only open encouragement but also time for fulfilling the role and an ongoing budget (however modest) — Principals can demonstrate their school's genuine commitment to addressing the needs of its gifted and talented students.



While this section, on a whole-school approach, is not intended solely for Principals, it is crucial that you and members of your executive staff take a leadership role if our suggestions are to be evaluated, modified or expanded to suit your circumstances, and then put into practice in your school.

The G&T coordinator's role will vary according to the school's size, the nature of its student body and its approach to the identification of gifts and development of talents. Responsibilities that may be considered desirable, if time permits, include:

- Participation in policy development, perhaps as a member of the school's G&T Committee.

A schoolwide G&T committee can help to share the workload and may include student members and parent/community members, as well as interested, knowledgeable teachers. It is highly preferable that it include the Principal or another senior executive member, to enhance its credibility and authority within the school.

- Testing and placement of students for special grouping and for subject- and grade-acceleration.
- Other aspects of G&T identification and case management: eg students new to the school, underachievement.
- Coordination of pastoral care of G&T students, including advocacy for students, individually and collectively, and strategies for meeting social-emotional needs.

For example, this may involve meeting all accelerated students within the school at least once per month.

- Provision of leadership in differentiated curriculum development (eg by modelling good practice as well as making colleagues aware of new strategies and ideas).
- Organising, in collaboration with school executive, professional development of all staff on definitions, identification, provision and affective support.

The orientation of new staff members to agreed school practices will be important if continuity is to be ensured.

- Coordination of a mentoring program for highly gifted students.
- Coordination of specific extension activities: eg enrichment days, competitions, external courses for gifted students, online provisions.

This may involve overseeing competition coordination by staff members from relevant subject departments (secondary) or Stages (primary).

- Liaison with parents about identification, placement, provision and pastoral care.

Ideally, some form of parent information booklet and/or face-to-face parent information sessions will be provided.



Outline a plan for a whole-school approach to talent development in your school. Consider what is required for it to be adopted.



Outline, and discuss with colleagues, a plan for a whole-school approach to talent development in your school. Try to reach consensus on what is required for it to be adopted.



Outline, and discuss with colleagues if appropriate, a plan for a whole-school approach to talent development in your school. **Consider** what is required for it to be adopted and what your leadership role(s) will be to ensure its acceptance and success.

Part 2

Maths and acceleration

Because of the nature of the subject matter it has been suggested that students gifted in mathematics can have their high potential most economically developed via acceleration. While there will be individual differences in this, it has also been found that such students often prefer faster paced, more challenging learning. For example, Diezmann and Watters (2000) report Julian Stanley as finding that:

‘Figuratively, they [gifted students] were starved for mathematics at the proper pace and level and rejoiced in the opportunity to take it straight rather than being “enriched” with math puzzles, social studies discussions, trips to museums, critical thinking training not closely tied to mathematics, and so forth.’

Many of the studies analysed by Karen Rogers to show the academic value of subject acceleration were done in the area of maths.

As we discussed previously (in Specialisation Module 1), one of the most noteworthy programs for mathematically gifted students has been the Study of Mathematically Precocious Youth (SMPY), begun by Julian Stanley at Johns Hopkins University.

In their study of 320 profoundly gifted SMPY students — those who by age 13 had scored in at least the top 1 in 10,000 in either mathematical reasoning ability or verbal reasoning ability — Lubinski, Webb, Morelock and Benbow (2001, p. 720) found that:

‘an overwhelming majority of participants (95%) took advantage of various forms of academic acceleration in high school or earlier to tailor their education to create a better match with their needs. ... Most participants (71%) were satisfied with the level of acceleration they experienced. Of those who did not indicate satisfaction with their acceleration experiences, the majority indicated that they would have preferred to have been accelerated even more, not less.’

Several of the examples cited below, in our discussions of radical acceleration and early tertiary entry, involve students whose exceptional ability was in maths.

We are not suggesting that acceleration should be the only form of provision for students gifted in maths; our point is that it is often viewed favourably by such students — meeting their need for advanced and fast-paced learning — and that research evidence is supportive of its appropriateness. Therefore, it deserves full consideration when you are deciding what form(s) of provision are best for any particular student whose giftedness includes maths.

Radical acceleration considerations

Radical acceleration is generally said to have occurred when a gifted student finishes school three or more years earlier than age peers (Gross & van Vliet, 2003).



In Core Module 6 we cited the case of ‘Michael’, a profoundly gifted student who was radically accelerated into university (the University of New South Wales) at age 15, after completing Year 9 at his state high school — ie grade skipping three Years. He was a classic example of Robinson and Weimer’s (1991, p. 38) observation that ‘In very bright children ... social skills may appear “retarded” when in fact they have had no intellectual peers with whom to share play interests or conversation.’ At university Michael found both intellectual stimulation that matched his readiness and opportunities for social interaction with like-minded people. After his first year at university he wrote:

‘Often people who comment on such schemes seem worried that such acceleration may cause social problems. I have found the reverse. In high school I was despised by most of my peers for not fitting into the norm, whereas at university there are many more people who share my interests. Generally, my age, if they ever find it out, is not a great problem in my relations with them. One of the things that became patently obvious to me this year is how utterly frustrated I was at high school. Despite the great cooperation of many teachers, I find that when I look back on life at [high school], it appears as one great stretch of misery. In summary, I feel that the acceleration has been a great success academically, and socially.’

Thus, radical acceleration may be said to have enabled Michael to avoid remaining a **social underachiever**.

At high school he was also a chronic underachiever in humanities subjects. When he was accepted into UNSW some of his former teachers predicted that he would not succeed because UNSW required its BSc students to complete two humanities/Arts subjects in their degree and at high school he was perceived to be a student who ‘could not write’. In fact, Michael attained results of Credit and Distinction in his two humanities subjects, not as stellar a performance as in his maths subjects but a clear indication that he had above average potential in these areas. His performance at school — interpreted as ‘he could not write’ — was in reality a case of his **choosing** not to write, presumably because he found the content uninteresting or unchallenging. Here is further evidence that we should not judge a bookworm by his or her cover!

The advice in Core Module 6 on the **process** of implementing acceleration is even more crucial when considering radical acceleration. The following advice should also be considered:

- As Michael’s case above illustrates, academic and/or social underachievement may well be signs of the need for radical acceleration — rather than reasons for deeming it inappropriate — where highly gifted students are concerned. Hence, the importance of determining levels of giftedness and of following up any indication of high potential, even if it seems to be only in a single domain.

Research suggests that radical acceleration is very much more likely to be appropriate, and to be effective, with exceptionally and profoundly gifted students (IQ 160+) than with those less unusually able, eg the moderately gifted.

- It is usually recommended that radical acceleration be spaced out as a number of single grade skips throughout the student’s schooling rather than as a single multi-grade skip. While Michael’s case provides a contrary example, in hindsight it may be seen that he would have benefited from acceleration much earlier in his school career — eg when he was found to be capable of Year 8 maths when in Year 5 and almost certainly earlier than that, in his early childhood phase.

An example of multiple-step radical acceleration was the boy in the ACT who had skipped three Years by the time he was in his first year at high school (and was expected to skip another) — starting school in Year 1 (ie skipping Kindergarten altogether), then accelerating from Year 1 to Year 3, and later skipping from Year 5 to Year 7.

The final year of primary schooling or the first year of secondary schooling is often a good time for a grade skip because of schools' tendency to revise and consolidate previous learning during that first year of high school.

This multiple-step acceleration allows the school to assess the student's capacity to cope with the acceleration before deciding whether, and if so when, another grade skip is appropriate. In Stage-based systems it may mean that a highly gifted student spends only one Year, rather than two, in two or more of the Stages — a recognition of her rapid pace of learning and advanced knowledge base.

- To reiterate a point made above, a child who is likely to benefit from radical acceleration should be started on this process from a young age. The girl in the following example (Kearney, 1993, p. 16) seems likely to be such a candidate:

'Cindy, whose reading taste at age four included the works of Laura Ingalls Wilder and Madeleine L'Engle, sat on the rug during Circle Time at her preschool with her mother, who was volunteering in the classroom that day. The teacher began reading a familiar, beautifully illustrated alphabet book to the children, naming the letters as she read.

Cindy leaned over to her mother, realizing the full import of this familiar activity for the first time. She whispered to her mother incredulously, "She's trying to teach them their letters, isn't she, Mom? They don't know letters yet!"

- Radical acceleration can help a highly gifted child appreciate the full extent of his potential and thus why he has always felt different from age peers. One Australian parent, of a child who was successfully subject-accelerated in maths from Year 6 into Year 10, commented that:

'from the time he was radically accelerated in Maths, James realised how much brighter he was (in some subjects at least) than many of his age peers. Up till this point he was acutely aware of being different, but the difference always had only negative connotations. Now he could see that he was easily able to cope with this advanced work and it gave him some concept of where he fitted in the overall scheme of things.'
(Townsend, 1996)

She added that 'in James' case the best thing which ever occurred in his school career was being radically accelerated in Maths'.

- In her Australian study of exceptionally gifted students Miraca Gross (2004) found that the most effective educational programs provided for these students had been those designed through the close cooperation of the school, the parents and the student. Parents are often as reluctant as teachers to agree to having a child skip more than one grade. Therefore, this three-way communication and decision making is essential when radical acceleration is being considered and planned. It needs to begin well before the decisions is made and to be ongoing, since radical acceleration is likely to be implemented in a number of small steps over several years.

- Gross (2004, p. 281) also found that ‘in every case’ the students in her study who were radically accelerated had not only achieved outstanding academic success but also had found what she termed ‘the “sure shelter” of a warm and supportive friendship group’ – ie, through their access to children at similar stages of cognitive and affective development, rather than being restricted to contact with age-peers. This positive evidence should be shared with students considered for radical acceleration (and their parents), especially if they are reluctant to agree to it even though the school’s professional judgement is that it seems the best option.



- A suggestion worthy of further investigation is Nancy Robinson’s (2004) observation that:

‘In my experience, one-year acceleration in elementary or secondary school often leaves a student looking immature but otherwise not distinguished from classmates. With two years or more of acceleration, the age difference is differentiable, so that the student is more likely to be identified as “young” rather than “immature”, seen on his or her own terms rather than by rigid age-grade expectations.’

Factors associated with successful radical acceleration

Gross and van Vliet (2003) report the following as variables that the research evidence shows to be related to successful radical acceleration:

- Personal characteristics of the student — eg their motivation to achieve, persistence and passion for advanced learning; their acquisition of advanced study skills.
- Involving the student in educational planning — ie ensuring that they are supportive of the strategies to be used and believe that the benefits of these will outweigh any regrets about missed opportunities (social, creative or sporting).
- Supportive family — eg encouraging; willing to allow their children greater independence despite their young age + being kept informed about the process of radical acceleration and any associated counselling / pastoral care.
- Supportive educators — eg long-term critical planning, monitoring and mentoring by a well-informed educator.
- Individualised acceleration planning — eg access to a variety of acceleration options, and consideration of the optimum timing for using whichever seem to suit the particular individual.
- A flexible approach to teaching and learning — eg adjusting the individual's plan as needs and circumstances change.
- Programming to support the affective needs of students — eg addressing the need for interaction with like-ability, like-minded peers; providing counselling / pastoral care support before and during the acceleration process.
- Opportunities to develop skills for advanced study — eg the skills of effective note-taking, essay/assignment writing and time management.

Early entry to tertiary education

Is it effective?

The successful case of 'Michael' (above) demonstrates that early entry to tertiary education can be a highly appropriate way of addressing the needs of highly gifted students.

However, a recent Australian report (Figgis et al, 2002, p. 5) found there to be

'little, if any, reliable evidence of the outcomes for school, universities or the system as a whole, or of the way(s) in which these arrangements actually benefit the students involved.'

Perhaps more surprising is their finding that while some students use the credit earned during high school to accelerate their subsequent university studies the vast majority 'appear not to be interested in accelerating their university course' while for many students 'the university subject studied at school is not particularly relevant to their intended degree' (Figgis et al, 2002, p. ix). In such cases the acceleration is providing a form of enrichment, presumably, as well as an opportunity to explore tertiary-level study.

Fortunately, there is considerable research (and anecdotal) evidence available from North America (eg Olszewski-Kubilius, 1995), some of which is summarised below:

- The academic performance of early tertiary entrants is impressive. They attain higher grades than other students, are more likely to complete university and to do so on time, and are more likely to become recipients of prizes or other honours.

Nevertheless, there are some underachievers and some drop-outs, though the numbers of these tend to drop as programs become better established (eg providing better counselling and other support, or employing more stringent selection procedures).

- There is much less conclusive evidence on how well early tertiary entrants fare socially and emotionally. However, there is evidence that students generally felt positive about their peer relationships at university.

The student's social experiences as an early entrant to university will vary according to whether she is a gregarious extravert or a quiet introvert, among other things. Nevertheless, Wright (2001, p. 7) reports that:

'So many parents find their profoundly gifted children blossom in college. For the first time, they are able to befriend people interested in their favourite subjects.'

On the other hand, Swiatek (2002) notes that 'some students who are radically accelerated approach school as a solely academic activity, and look to other settings for social interaction' which parents can encourage 'by providing their children with opportunities for involvement in extracurricular activities'.

Furthermore, while it may be counterintuitive, ‘several parents have indicated that their highly gifted children are happier and they have more time to “be kids” after enrolling’ as early tertiary entrants.

- As has been found elsewhere when gifted students move into more challenging academic settings, a decrease in self-esteem has been reported but it tends to be small and usually temporary in nature.
- Few early tertiary entrants express regrets about their decision.
- Most used in very productive ways the extra time they gained by early entry to university, generally progressing to postgraduate study.

Olszewski-Kubilius (1995) concluded with the advice that:

‘Students can also prepare for the experience by obtaining early career counseling and by developing interests that will be the basis of new friendships. Most important, the decision to enter college early should be primarily the student’s but once made, families need to be supportive and to recognize that despite their child’s extreme ability, there will be challenges and disappointments, but also a great deal of positive growth.’

What forms does it take?

- It can involve radical acceleration, as in Michael’s case, where a carefully screened student skips several grades at once, to begin university study without completing the senior years of high school. However, this form remains relatively rare in Australia.
- Dual enrolment can mean that a student is undertaking secondary courses while still in primary school (as happened with Terry Tao who was capable of Year 10 maths when a 7-year-old) or it can mean that a gifted student is allowed to enrol in a university subject (or several) while still at school.

The expansion within the Australian university sector of distance education provisions, especially online teaching, is creating more opportunities for gifted school students to take up this option, regardless of their location. For example, Peter Merrotsy (2002, 2003) has documented a variety of instances of this involving students at a small, relatively isolated rural high school in NSW.

However, the distance education mode of learning does require considerable self-discipline on the part of the student and feedback may sometimes seem very slow, so it is desirable that a teacher at the student’s school accept the role of local mentor/tutor for the duration of the university study.

If the student's school is close enough to a university attending face-to-face classes is an alternative and a particularly desirable one for subjects with significant practical components. Arranging transport and the timetable so that attendance at university classes is possible are tasks that the school should manage.

In the case of Andrew, who began a science degree specialising in computing when in Year 9 (aged 14), he attended university classes during the afternoon set aside for school sport. Wisely, Andrew was encouraged to conduct an analysis of the positives and negatives of attending university before he agreed that he would like to attempt it. He achieved a High Distinction in his first subject there, a second year elective. When invited to reflect on the experience Andrew mentioned that he had made 'some good friends at University' and commented that:

'The school has been very supportive, particularly the Gifted and Talented Coordinator. She has helped me organise everything with the University and determine what subjects would fit in with my school timetable, as well as helping me to determine what subjects may be suitable. I like to keep a low profile at school and don't make a big deal about going to University. The school has been helpful here in keeping my publicity to a minimum.' (Irwin, 1998, p. 22)

- Dual enrolment has the advantage of easing a young gifted student into tertiary study. In effect, it acts as a form of trial of whether tertiary coursework is the best (acceleration) option for an individual student at a particular time. If successful it may lead to further dual enrolment or to a move into full-time tertiary study.

How easy is it to arrange?

Not yet as easy as it should be, though this is changing. At the time of their survey in 2001, Figgis et al (2002) found that 23 of the 37 (out of Australia's 39) universities that responded offered some form of early entry or university credit option.

They also found that in most cases these options were provided without cost to the accelerated students, though the issue of 'who pays?' remains to be resolved formally and consistently (and fairly) across the university sector as a whole.

As long ago as 1977 Halbert Robinson founded an Early Entrance Program at the University of Washington that was designed for much younger students than most previous programs for early tertiary entrants (students typically being under the age of 14 at entry). A significant aspect of it was its provision of extensive social, emotional and academic support for the young gifted students. This included having enough students to provide a 'peer group' of early entrants, structured and unstructured meetings of this group of students for at least the first year of full-time university involvement, a common-room to use as a 'home base', a transition year to ease them into full-time university study (which addresses possible gaps in their knowledge base, among other things) and ongoing counselling support (Brody & Stanley, in Southern & Jones, 1991).

Who will benefit from it?

Whether a particular university provides support for early entrants will be one consideration for their parents and the teachers advising them when a decision is being made about whether, and if so where, to enrol a young gifted student, especially if this is to be on campus and full-time rather than by distance education or part-time.

Based on her personal involvement in it and her analysis of the research evidence, Nancy Robinson (2004) reached the following conclusions about early tertiary entry:

- It may suit those highly gifted older (usually teenage) students for whom it provides the 'optimal match'. 'Essentially, children learn best what they're ready for, or almost ready for, and what gives them a bit of a stretch — not so much that they find it aversive, not so little that they're bored.'
- It may not be the best option for 'poorly focused students or students who have competing agendas such as team sports, family conflicts to survive, or delayed puberty'.
- Students' motivation usually rises when the optimal match occurs but some gifted students who have been really turned off previously by an underchallenging educational system may not respond as hoped to this form of provision.
- It can help gifted students escape pressure to 'be like everyone else'. The girls and young women in the University of Washington program report 'that they, in particular, feel empowered as never before to find their own identities and social roles'.



Draft a plan for how your school can best deal with gifted students who may benefit from radical acceleration and/or early tertiary entry. Include details of the process and of who will be responsible for the various components of this process.



Draft a plan for how your school can best deal with gifted students who may benefit from radical acceleration and/or early tertiary entry. Include details of the process and of who will be responsible for the various components of this process. Discuss your plan with other teachers and refine it in light of their comments.



Draft a plan for how your school can best deal with gifted students who may benefit from radical acceleration and/or early tertiary entry. Include details of the process and of who will be responsible for the various components of this process. Consider what your leadership role will be – in having this plan accepted by the other members of your staff, and in its implementation, monitoring and evaluation.

Where To From Here?

In 2002 the American National Association for Gifted Children published *The social and emotional development of gifted children: What do we know?* a book of 24 chapters written by leading international researchers and focussing on different aspects of the socio-affective development of gifted children and adolescents.

We have reproduced here, with permission of the publisher, the closing section of this book which discusses what our schools and our societies must do if intellectually gifted students are to be educated in an emotionally secure environment.

‘The notion that some people can be “too smart for their own good” permeates contemporary society and creates a social climate in which intellectual and creative efforts by children and adults are undervalued. One consequence of anti-intellectualism has been a damaging tendency on the part of gifted children to deny their talents and try desperately to become “just like everyone else”. In a society in which all citizens should be respected and welcomed for who they are and what they can contribute to others, respect for individuality and appropriate resources must be provided to gifted and talented youth, as well as to others. Positive change will ensue if we create an open climate for the development and support of gifts and talents.

- Understanding will be enhanced that giftedness does not **inherently** bring with it increased social and emotional vulnerability. Problems do not occur simply because a child demonstrates gifts and talents, and they must be understood in a broader context.
- National efforts to increase the availability of a variety of appropriate instructional and out-of-school provisions must be a high priority since research indicates that many of the emotional and social difficulties gifted students experience disappear when their educational climates are adapted to their level and pace of learning. Among such educational provisions should be opportunities for academic acceleration and enrichment, together with opportunities for gifted children to find companions of similar maturity, interests and commitments to develop their gifts and talents. Too many schools across the country actively discourage, or even prohibit, capable students from moving through the curriculum at a pace commensurate with their abilities. Sadly, too, many schools maintain practices that prevent gifted students from working with others of similar ability for all but a couple of hours a week.
- Wider acceptance of the value of high attainment will create an atmosphere that rewards students’ best efforts and their courage in the face of life’s challenges. These two components are essential to the fulfilment of promise.
- Opportunities should be provided for adults — particularly parents, teachers and counsellors, and potential mentors — to enhance their skills at recognising talent and responding effectively to the social and emotional needs of gifted and talented students in a variety of ways. This will lead to the creation of an informed cohort of adults who can support and counsel gifted students as needed and can nip in the bud many potential problems before they fester.’ (Robinson, Reis, Neihart & Moon, 2002, pp. 286-287).

What can your school do to put these principles into practice?

- Encourage all your colleagues to use this Professional Development Package. Some schools have trained their entire staff using the Core Level of the Package and we have had wonderful feedback on how this has changed both attitudes and practices within the schools.
- Encourage those staff members who have particularly enjoyed the Package to investigate further training in gifted education. A number of universities across Australia now offer Master of Education subjects in gifted education or even full MEd degree programs specialising in gifted education. Some universities offer this by distance education. In addition, the writers of this Professional Development Package are available to conduct inservice activities for schools and regions in any area of Australia. Contact the Gifted Education Research, Resource and Information Centre (GERRIC) on (02) 9385 1972.
- Provide appropriate education choices for the gifted students in your school. 'No single strategy or setting will fit the needs of every gifted child, but the ordinary classroom, maintaining the usual status quo, will fit the needs of none' (Robinson, Reis, Neihart & Moon, 2002, p. 282).
- Actively look for students who would benefit from one or more of the many types of acceleration which have been described in Module 6 and elsewhere in this Package. Properly planned and monitored, acceleration does not cause social or emotional difficulties for gifted students. By contrast, retention with age-peers in the mixed ability classroom without access to curriculum set at an appropriate level or pace and without the companionship of students who are at similar developmental levels intellectually and emotionally, may well do so.
- Put in place, in your school, some of the forms of ability grouping which have been described and discussed in this Package. Gifted students in ability grouped settings achieve, academically, at higher levels than do ability-peers in mixed-ability classes, and they also develop happier social relationships and a better acceptance of their own abilities.
- Help gifted students develop resilience. Assist them to value and develop their own strengths — but ensure that this does not translate into leaving them with most of the responsibility for this. No student, no matter how talented, should bear the weight of a responsibility which is rightfully the school's.
- Work with colleagues to change the culture of your school where that culture does not promote and facilitate the needs of all students, including the gifted. Remember that gifted students are found within all cultural, ethnic and social groups. Promote acceptance and respect for gifted students and also encourage in your staff 'the willingness to make the relatively small investments (gifted students) need for what is potentially an enormous pay-off' (Robinson, et al, 2002, p. 283).



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Websites

<http://www.nationdeceived.org>

[A copy of the 2004 report on acceleration, *A nation deceived: How schools hold back America's brightest students*, which provides a detailed synthesis of the major research on acceleration.]