# To Group or Not To Group:

# Is *THAT* The Question?

Miraca U.M. Gross, Ph.D.

Director: Gifted Education Research, Resource and Information Centre (GERRIC), University of New South Wales, Sydney.

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In the first few months of the school year, parents of gifted and talented children in a number of Australian states and territories and, of course, the children themselves, consider an important educational issue; should the children apply to be considered for entry to their state's ability grouped programs with other gifted and talented students or should they continue in the mixed ability setting of a regular primary school classroom or comprehensive high school.

For most parents of gifted children, the debate centres on two key issues. Will their children find friends, companionship and contentment in the new setting? And will the ability grouped class or school provide a more effective instructional setting in which their children's abilities can be fostered?

Effective instruction must be based on a recognition of three basic premises of learning.

*(1) Learning is a sequential, developmental process. Attainment of skills, understanding in different domains of knowledge, and strategies for solving problems, are all acquired gradually, and in sequences that are more or less predictable (Robinson, 1983).*

*(2) There are substantial differences in learning status and learning rates among individuals of any given age. Individual differences characterise both the rate of development (i.e. general intelligence) and the acquisition of specific skills (e.g. reading), and even in the earliest years of school we can note a quite remarkable spread of achievement in reading or number among children in the same school class (Robinson, 1983).*

*(3) Effective teaching must involve a sensitive assessment of the individual student's status in the learning process, followed by the presentation of problems that* ***slightly exceed*** *the level already mastered. (Tasks that are too easy produce boredom; tasks that are too difficult cannot be understood). Vygotsky (1976) calls this "target area" the zone of proximal development.*

If, as educators, we recognise and accept these three fundamental principles of effective learning and effective teaching, then we must ask ourselves this question:

*If it is true that learning is a developmental and sequential process, that there are striking differences in developmental rate among individuals of the same age, and that effective teaching must be grounded where the learner is, then how do we justify an educational system that ignores competence (what the student is able to do) and achievement (what he or she has already mastered) and utilizes chronological age as the primary, or only, factor in student placement?*

Grouping by chronological age is a relatively modern administrative procedure, introduced within the last 100 years. It was brought in to cope with large numbers of students from previously disenfranchised groups entering a school system which had previously catered to comparatively small numbers of children. Previous to this time, children had progressed through the school grades on the basis of their mastery of the work of the different grade levels. Accelerated progression was a common, and accepted, procedure for ensuring that academically gifted students were presented with work that was appropriate to their developmental needs.

In the United States, accelerated progression of the academically gifted was so common that when, in the early 1920s, Lewis Terman set out to find a cohort of highly able students who could subsquently be tested for possible inclusion in his seminal study of 1500 gifted children, he asked teachers to nominate not only the student whom they believed to be the brightest member of their class, but also the child who was the youngest member (Terman, 1925). The youngest child in the class was likely to be a gifted student who had been accelerated.

**Grouping by chronological age**

In today's schools, we group students by chronological age because it seems to be administratively convenient, because we have become accustomed to doing so, and because we wrongly assume that chronological age is an accurate index of academic development.

However, 60 years of empirical research on student development and learning has shown us that chronological age is not a reliable indicator of the level that a child can, and should, be working at.

*Example (1):*

In 1998 an Australian study surveying literacy in primary school children found "a learning gap" equivalent to at least five years of schooling between the top and bottom 10 per cent of children in each Year 3 class surveyed in the study (Coorey, 1998). Given that the reading achievement of only the "middle" 80% of the class was reported by Coorey, we can only speculate how wide the achievement span of the class would be if the reading ages of the lowet and highest 10% were taken into consideration. These children may not have been reported in the study but they were still in the classes!

*Example (2):*

If we accept the three premises that began this article, we will realise that the range of achievement found in any school class increases with age. While Coorey found that the span of reading achievement in a Year 3 class is *at least* 5 years, by Year 7 it has increased to

around 8 years. Because of the importance of reading as a learning tool, the range of achievement in virtually every subject area increases as a given cohort of students moves through school. A Year 8 class may include students who are reading, with full comprehension and enjoyment, adult science fiction or historical biography, and students who are struggling to read at Year 4 or 5 level.

*Example (3):*

Gagné (1986) reports a study conducted by Deslaurier in Montreal which graphically illustrates the management problems faced by a teacher who seeks to individualise the curriculum of the mixed-ability classroom. Deslaurier wanted to investigate the learning status, at the beginning of the school year, of students entering any particular year level. He was interested to find out what proportion of children already knew some of the work that was to be presented to them.

Accordingly, at the beginning of the school year, Deslaurier administered, to 96 randomly selected Year 5 students, the maths test and the French test that would normally be given at the end of the school year. (French is the first language of most students in Quebec.) The results were quite disturbing. Fully 3% of the children scored 85% or above on at least one of the tests, a further 3% scored between 80% and 84%, and 7% scored between 75% and 79%. In other words, fully 13% of the students - almost one-seventh of this Year 5 cohort - knew three-quarters of the Year 5 material in two key learning areas before the work of the year had started. Indeed, Deslaurier found that 45% of these Year 5 students knew more than 60% of the work.

*Example 4:*

In the United States, a professor of mathematics, Dr James Flanders (1987), analysed the content of three of the best-selling school mathematics textbook series to see how much new material was taught each year. A disturbing pattern emerged which is worthwhile examining in detail. Giving credit to a book for a "new page" if *any* new material appeared on that page, Flanders concluded that the average percentage of "new" pages for each grade were as follows:

| | |
|---|---|
| K | 100 |
| 1 | 75 |
| 2 | 40 |
| 3 | 60 |
| 4 | 45 |
| 5 | 50 |
| 6 | 38 |
| 7 | 35 |
| 8 | 30 |
| 9 | 90 |

I find this table quite startling – especially if one considers the "hidden" figures – the percentage of the year's work that was planned as revision! While only 25% of the maths work of Year 1 was review, students in Year 2 are required to revise fully 60% of the work covered in the two previous years! What happens to the students in the upper half of the class in terms of maths ability, who may be able to predict for themselves how the new work should be mastered? The skills involved in adding 325 and 491 are not so different to the skills in adding 32 and 49! Just how much are the abler students *learning*?

However, the situation worsens the further the child progresses through school. The "dumbing down" of the maths curriculum continues through the middle school years with fully 62% of work in Year 6 and 65% in Year 7 being material presented before. In Year 8, a disturbing 70% of the work is revision. Students who have mastered work in previous years are "marking time" in maths for two thirds of the week.

What can justify the relentless re-presentation, in Years 6, 7 and 8, of work which would surely have been mastered by the majority of the class? And if the authors of these texts are, mistakenly, working on the premise that this degree of revision *is* necessary for the average student, how on earth could they expect that students who learn only 30% of new

material in Year 8 could suddenly be expected to learn three times that amount the following year? There seems to be little logic in such curriculum design.

If students gifted in maths were held back to the pace and level of the students for whom these texts were apparently designed, how long would they retain their excitement for the maths presented at school? How long would it be before these children simply switched off and let the boring, repetitious instruction flow over them, barely touching the surface of their consciousness? As Professor Brian Start, formerly of the University of Melbourne, once phrased it: “How long can you anaesthetise a child before you send him into a coma?”

*Example 5:*

In 1993 Dr Sally Reis and colleagues at the American National Centre for Gifted Education published a startling study which showed that teachers could modify the curriculum for academically gifted students by *eliminating* approximately *40-50%* of the core curriculum in maths, language arts, science and social studies without the students suffering any ill effects (Reis, *et al*, 1993). This is the proportion of the year’s work that is regularly revised from the previous year. Indeed, Reis commented wryly that gifted students might well start the school year in January rather than the previous September – and compact the year’s work into six months!

What can the school do for these students who start the school year already knowing half, or indeed three-quarters, of the work they are to be "exposed to" that year? Firstly, the school has to acknowledge that the situation exists, and this is unlikely to happen if we continue to act on the flawed premise that chronological age is a reliable index of what students can, or do, achieve in our schools.

As things are, we put many of our most able students "on hold" for large periods of the school year. Here, a gifted 11-year-old boy tells us his feelings about the endless time he spends waiting in class to learn something he doesn't already know.

*"All the time I just sat there,*

*sat there,*

*Waiting for something to happen.*

*My teachers should have ridden with Jesse James,*

*My teachers should have ridden with Jesse James*

*For all the time they stole from me"*

(Delisle, 1984).

What does it feel like to be the parent of such a student, knowing that your child is getting little, or nothing, out of his or her time at school, and watching the growing disillusionment and demotivation? For the last 20 years I have been following the academic, emotional and social development of 60 of the most gifted young people in Australia – young people of IQ 160 and above. The study, which has followed these young people through childhood, adolescence and young adulthood – they are now in their early and mid-twenties - is reported in my book *Exceptionally Gifted Children: Second Edition* (Gross, 2004). Here the mother of Jade, then aged 7, describes her feelings about Jade's schooling:

> *"I feel very negative about Jade's school experience. We have seen her go from an extroverted, confident and happy 3-year-old whose abilities took our breath away, to a negative, often bitterly unhappy 7-year-old. She has lost her zest for learning and achievement. She is totally different from the child I would have predicted she would be. It seems incredible to me that the school should expect her to be excited about the curriculum they offer her, which is years and years below her level, and what makes it worse is that because she won't respond to the basic work, nothing in the way of acceleration or enrichment is being done for her. It's a vicious circle. I am so afraid that she will never feel fulfilled, and yet I feel powerless to do anything because I feel like I am fumbling around in the dark and I don't know where the switch is."*
>
> (Gross, 2004, p. 175).

For years, Jade had been presented only with work appropriate to her chronological age - work she had mastered years before. The only enrichment she was offered was "lateral enrichment", set at her chronological age level and therefore as inappropriate for her as the core work had been. She was locked into a system that would not respond to her educational

needs. When, eventually, she "switched off" and stopped working, the school responded by telling her that she could not have the enrichment work until she had finished the basic work. It was a pointless threat, as neither the basic work nor the "enrichment" gave Jade any pleasure or sense of achievement.

A second reason for grouping students by chronological age is that we assume that it is the best index of a child's social and emotional development - yet many years of research have shown this is not so.

The considerable majority of psychologists and educators working with intellectually disabled and intellectually gifted children now accept that children's emotional and social maturity is much more closely linked to their mental age (their developmental age in terms of their reasoning ability) than to chronological age (Tannenbaum, 1983; Janos and Robinson, 1985; Robinson, Reis, Neihart and Moon, 2002). Lehman and Erdwins (1981) measured the social and emotional adjustment of Year 3 and Year 6 students of average intellectual ability, and intellectually gifted Year 3 children, and found that the gifted Year 3 children scored significantly above their average ability age peers on all 12 areas of adjustment measured in the study. Furthermore, the gifted Year 3 children showed better social and emotional adjustment than the average Year 6 students on 11 of the 12 measures.

Gifted students prefer the company of children at their own stage of intellectual and emotional development - either other gifted children or children who are a few years older (O'Shea, 1960; Gross, 1992; Silverman, 1993; Gross, 2004). When such companionship is not available, they may either conceal their intellectual and emotional maturity in an attempt to be accepted by their classmates, or they may become isolates, preferring their own companionship to continual interaction with age-peers who are much less emotionally mature then they. If highly gifted children are retained full time in the mixed-ability classroom, with no access, or little access, to other gifted students, serious behavioural and emotional problems can result (Silverman, 1993; Gross, 2004).

**Research-based advantages of grouping by ability**

(1) Ability grouping allows gifted students to progress at their own pace with other students of similar ability.

(2) It permits teachers to offer gifted students methods and materials that are geared to their level of ability and achievement.

(3) It provides a realistic range of competition that challenges and stimulates students. (We recognise the value of realistic and friendly competition in training students who are gifted in sport, athletics and music; academically gifted students should likewise have the opportunity to "stretch themselves" in the company of others of similar ability.)

4) It enhances gifted students' self-esteem.

(5) Ability grouping leads to a significant drop in underachievement for peer acceptance.

(6) It makes teaching easier and more effective by reducing the range of achievement found in any class.

Let's look more specifically at some of these research-based findings.

- Overwhelmingly, research shows that gifted students who enter ability grouped settings perform significantly better on later measures of school achievement (measures of "value added") than do their ability-peers in comprehensive settings. Research consistently shows measurable academic gains for gifted students across all subject areas, particularly when the grouping is fulltime (Kulik, 1992) and particularly for high ability students from minority groups (Page and Keith, 1996).

- Meta-analyses of "value added" studies of the performance of gifted students in ability grouped classes where the curriculum is accelerated as well as enriched, have shown that these students gain in grade-level competencies at almost twice the rate of equally gifted students retained in the regular classroom (Kulik, 1992). The ability grouped students gain, on average, 10 months additional progress over the course of a year. Even students in ability grouped classes whose curriculum consists principally of enrichment were shown to progress at rates 50 per cent higher than ability peers in the mixed-ability classroom.

These studies found, furthermore, that gifted students improved significantly in attitude towards those school subjects in which they were ability grouped.

- A "value added" study of 1000 academically gifted students in a range of educational settings (Delcourt et al., 1994) found that gifted students in special programs perform consistently better than do equally gifted students educated entirely in the regular classroom. When students in different forms of ability grouping were compared it was found that gifted students in fulltime ability grouped settings (special schools for gifted students and fulltime self-contained classes) performed significantly better than did equally gifted students who were ability grouped for only part of the week.
- Rogers (1998) published an analysis of 14 "best-evidence" syntheses of studies on grouping conducted before 1991 and an additional 56 studies conducted since that date. She found that while homogeneous grouping was more beneficial than mixed-ability grouping for students at all levels of academic ability, it was much more beneficial for high-ability than for low-ability students. Both high-ability and low-ability students benefitted from more social interactions when grouped with like-ability peers.
- During 1989-1990 a team of researchers from the NSW Department of Education and three state universities surveyed 1100 students from 10 Selective High Schools to ascertain what expectations the students had had prior to entry to their schools and to what degree their expectations had been fulfilled (Adams et al, 1992). The students' expectations had been two-fold: firstly, that the work in the selective school would be harder and set at a more advanced level but that they would be able to keep up with that accelerated level of work; secondly, that they would make lots of new friends - an important consideration for gifted students who may have found it difficult to form friendships in the mixed-ability environment of primary school. For the considerable majority of the students, these expectations were fulfilled, and for some the satisfaction exceeded their expectations.
- A study which I conducted of self-esteem shifts in New South Wales students in both Selective High Schools and comprehensive high schools found that selective high school students had higher self-esteem scores than did the comprehensive students on all aspects

of self-esteem (academic, social, home/family, and general self-esteem) and at all times during the study (Gross, 1997). Both selective and comprehensive students displayed a dip in academic self-esteem over the course of their first year in high school (which is fully congruent with previous studies of adolescents moving from primary to secondary education). However, both at the beginning and close of the study the academic self-esteem of the Selective High School students was higher than that of their age-peers in comprehensive schools.

In this study, self-esteem was shown to be linked to motivational orientation, with students who are task-involved (motivated to learn for the love of learning) displaying consistently higher self-esteem than students who are ego-involved (motivated to learn in order to be better than one's classmates). The few students who did experience a disturbing decrease in academic self-esteem during the course of Year 7 (fewer than five per cent of the sample) tended to be highly ego-involved. The majority of Selective students in this study were shown to have a task-involved, rather than an ego-involved, orientation - contradicting the community perception that selective schools breed competitiveness. What Selective High Schools *do* encourage is self-referenced competition - the desire to perform better than one has performed before - which may be misinterpreted by observors as competitiveness against one's classmates.

- The study by Delcourt et al. (1994), for which the findings on student achievement were noted earlier, also examined socio-affective issues such as the students' attitudes towards learning, their motivational orientation and their academic self-perceptions. Gifted students in special schools had more positive attitudes towards learning than did ability peers in any other grouped or ungrouped setting. Similarly, they were more likely than their ability-peers in other grouped settings to report that they felt confident about their judgments on school and academic issues. Interestingly, gifted students in the regular classroom and in part-time grouping had higher perceptions of their own scholastic abilities than did equally gifted students in full time classes or special schools. This supports my own conclusions (Gross, 1997) and those of Kulik and Kulik (1997) that the dip in academic self-esteem noted when gifted students enter ability grouped settings is not deleterious but is rather a shift to a more realistic perception of their own abilities

when they are able (often for the first time) to compare themselves with other academically gifted students. This study suggests that it may be gifted students who are retained in the mixed-ability classroom who have inflated opinions of their own abilities, as they have little opportunity to measure themselves against a valid comparison group.

**Reasons frequently given for not grouping by ability**

It is noticeable, and disturbing, that the reasons most frequently given, by teachers and school administrators, for not grouping gifted and able students by ability, are not supported, and are in many cases contradicted, by empirical research.

(1) *"Ability grouping is elitist and adversely effects the self-esteem of those not in the top group".*

This is a very emotive argument, but it is not supported by research. Kennedy (1989) found that children of average and low ability enjoyed having the gifted students withdrawn from the classroom; they then had a chance to stand out. Fiedler, Lange and Winebrenner describe a primary school student's comments when the gifted students had left the classroom. "When Bill (the gifted student) was in class, it was like the sun shining on a bright, clear day. But when he went out to work with the other gifted kids, it was like when the sun goes over the horizon. The rest of us were like the moon and stars; that's when we finally got a change to shine" (1993, p. 7).

In any case, as Goldberg pointed out as far back as the early 1980s, Australian educators seem to have no qualms about identifying talent in sports, athletics, or music, and providing specialized programs for children excelling in these areas (Goldberg, 1981). In 1977, even while an Advisory Committee appointed by the then NSW Minister for Education was recommending the phasing out of New South Wales' Selective High Schools, it was simultaneously recommending the establishment of special centres for children talented in the performing arts (NSW Department of Education, 1977). In 2002 while the Vinson Inquiry, funded by the NSW Teachers Federation and the NSW Federation of Parents and Citizens, was recommending the disestablishment of half the state's Opportunity Classes (full time classes for academically gifted students) and all but seven of the state's 19

academically selective high schools, it was simultaneously endorsing the six selective or specialist schools for music and the performing arts.

(2) *"Life experiences do not occur in homogeneous settings, and high ability students must learn to work with a wide range of people".*

Certainly students of any level of ability must learn to work with a wide range of people, but ability grouping hardly denies them that opportunity. Incidentally, if we really examine our lives as adults, it will be seen that very many of our life experiences *do* occur in homogeneous groupings. People tend to socialise with other people with whom they have a certain commonality of interests. Most of us choose, as marriage partners and close friends, people with whom we have a certain degree of intellectual compatibility. This may not be "politically correct" but it is human nature.

This clustering of like minds and like interests in adulthood is possible only because adults are mobile and can develop their own social groupings. The gifted child who has her primary social group - her school class - selected *for her* by her school on the basis of chronological age, may be placed with a group with whom she has little compatibility either on the basis of intellect or interests. This may be administratively convenient for the school, but it is neither educationally nor psychologically defensible.

(3) *"Gifted students should be left in the regular classroom as models and mentors for students of lesser ability."*

Fiedler, Lange and Winebrenner (1993) point out this this idea is based on three false assumptions: firstly, that gifted students are consistently highly motivated achievers who will inspire others to similar accomplishments; secondly, that gifted students placed in mixed-ability classrooms will perform at their peak if they lack regular opportunities to interact with intellectual peers who can stimulate their thinking: and thirdly, that the less able or average students will be able to learn effectively from gifted students whose modes of thinking and working are so different from theirs. Schunk's (1987) research finds that children of average and low ability do not, in any case, model on high ability or gifted children; rather, they model on students of roughly similar ability to themselves who have succeeded in what they are trying to do. Gifted students are too far removed in ability from the average student

to be an appropriate role model for these children - and the average ability students recognise this, and model on students whose achievements they can more realistically hope to emulate.

(4) *"Ability grouping segregates students along ethnic and SES lines."*

When appropriate identification and selection procedures are employed, using objective as well as subjective measures, gifted students from low socio-economic backgrounds and from culturally diverse groups are much more likely to be selected for special programs than occurs when teacher nomination is used as the primary, or only, selection procedure (Baldwin, 1985). Enrolments in NSW selective high schools and Opportunity Classes reveal that the children come from a wide wide range of cultures and SES backgrounds (Gross, 2004).

(5) *"Ability grouping makes children conceited about their academic ability."*

As early as 1971, a nation-wide report commissioned by Sidney P. Marland, the U.S. Commissioner of Education, showed evidence to the contrary.

*"The relatively few students who have had the advantage of special programs have shown remarkable improvements in self-understanding and in their ability to relate well to others, as well as in their academic and creative performance. The programs have not produced arrogant, selfish snobs; special programs have extended a sense of reality, wholesome humility, self-respect and respect for others. A good program for the gifted increases their involvement and interest in learning through the reduction of the irrelevant and redundant."* (Marland, 1971, p. 51).

(6) *"Ability grouping damages gifted students' self-esteem".*

Kulik's (1991) meta-analysis of 40 years of studies on ability grouping found no evidence to support this assertion. Indeed, Gross's extensive study of shifts in self-esteem among students in NSW Selective High Schools, discussed earlier, found significant gains in student self-esteem among students enrolled in these schools (Gross, 1997).

**Full time grouping structures**

Let us now return to the title of this paper: *"To group or not to group: Is THAT the question?"*. There is such a wealth of empirical research on the academic and social benefits that accrue for gifted students when they are grouped, for at least part of the school day, with other students of similar abilities and interests, that perhaps we should not be asking *whether* we should group gifted students, but *how* such grouping may most effectively be undertaken.

There is no perfect grouping structure. Each form has its advantages and its disadvantages. In addition, schools have to work within certain constraints; for example, a school population may be too small to make feasible the development of a full-time class of gifted students, or a community may be too isolated to permit the establishment of a selective high school. However, there is a wide range of grouping options that school communities can consider, including ability grouping for specific subjects, cluster grouping and withdrawal programs. An excellent analysis of the strengths and weaknesses of a range of grouping programs is found in James Borland's 1989 text *Planning and implementing programs for the gifted*. The closing section of this article, however, will focus specifically on the advantages and disadvantages of full time ability grouped settings

**ADVANTAGES:**

* The level and pace of work in selective high schools and full time classes is able to be matched much more closely to the students' needs and ability. Like the young boy who wrote the poem quoted earlier, many gifted students become intensely frustrated, in the mixed-ability classroom, by having to spend lengthy periods of time waiting for the others to catch up. Gifted students learn more speedily, retain information more effectively, and require much less repetition of instruction, and the teacher of a class of gifted students can respond to this both in her teaching and in her lesson planning.

* Students experience a high level of peer support, both academically and socially. Children who enter full time ability grouped setttings generally do so because they are eager for a challenging and academically rigorous curriculum, and because they have been frustrated,

and often mocked, in the mixed-ability classroom, by other students who have little understanding of, or sympathy with, their love of learning. The ongoing contact with other children of similar abilities and interests assists gifted students to accept their own abilities and to feel less embarrassed or ashamed at being "different" in a peer culture which values, and rewards, conformity. The gifted students in Lehman and Erdwin's study, referred to earlier, who had much higher levels of social and emotional adjustment than both their age-peers, and students three years older, were in fulltime ability grouped settings.

* Gifted children in ability grouped settings are much less likely to underachieve deliberately, for peer acceptance. Selective High School and O.C. students interviewed by Gross report that they feel much less pressure to moderate their vocabularies, conceal interests that their classmates would not understand, and make deliberate errors in school work, than they were in previous years.

* There is a greater likelihood that teachers in special schools and classes will have had some form of inservice provision on identifying and teaching academically gifted children. It is becoming increasingly common for primary schools to select, as the special class teachers, staff members who have had post-graduate training in gifted education. By contrast, the considerable majority of teachers currently working in Australian schools have had little or no preservice training on how to identify and respond to gifted and talented students (Gross, 2004).

* As indicated earlier, research has found that students in NSW Selective High Schools have higher self-esteem than age-peers in comprehensive schools (Gross, 1997). Students in their first year of Selective High experience significant rises in self-esteem, particularly in social and general self-esteem. They report that they have been able to develop more, and closer, friendships than they did in the mixed ability setting, and have more positive perceptions of their own acceptability in the peer culture.

* There is more chance of the child having a teacher who is interested in (or at least tolerates!) gifted and talented students.

**DISADVANTAGES**

* Selective High Schools and fulltime ability grouped classes are not practicable options for small population centres.

* Students who do not have special schools or classes in their neighborhood may have to travel quite long distances to take up these opportunities. Some NSW Selective High School students spend more than two hours each day travelling between home and school.

* Local comprehensive high schools may have a negative attitude towards the establishment of Selectives in their area. In primary schools, friction may arise between special classes and regular classes if the staff and administration do not handle the situation sensitively.

* The successful operation of a special school or ability grouped class requires staff commitment and administrative support. A teacher who has strong ideological convictions against the provision of special programs for gifted students can cause difficulties and dissention among the staff and instil a negative or even hostile atmosphere in her classroom (Borland, 1989; Gross, 2004).

* Although there is a strong likelihood, there is no *guarantee* that teachers in special schools and ability grouped classes will adapt their curriculum and teaching style in response to the needs of their students.

**Conclusion**

Influenced by a considerable body of research on the positive effects of ability grouping on both the academic and social development of gifted students, virtually every recognised authority on the education and psychology of the gifted has recommended that intellectually gifted students should be grouped together for a significant proportion of their class time (Hollingworth, 1942; Kulik and Kulik 1982, 1997; Tannenbaum, 1983; Feldhusen, 1985; Borland, 1989; Kulik, 1991; Rogers, 1991, 1998). Even educators who express concern about the practice of grouping slow learning students by ability (e.g. Oakes, 1986;

Johnson and Johnson, 1989) report on the benefits that accrue to gifted students when they are grouped for fast-paced, accelerated work.

Two major research syntheses, by Karen Rogers (1991) and James Kulik (1991), undertaken on behalf of the American National Research Centre on the Gifted and Talented, conclude that gifted students, as well as average and slow learning students, derive considerable benefit from grouping programs that recognise the learning status and pace of learning of the different groups, and adjust the curriculum accordingly. Kulik and Rogers recommend that ability grouping be retained, and established, on these premises. Kulik also warns, however, that little benefit accrues from programs which group students by ability but then require the different groups to undertake a common curriculum in the same space of time.

In Australia, decisions regarding student placements have, all too often, been based not on educational and psychological principles, but on political expediency and administrative convenience, or on a concern for "equity" which confuses equal opportunity with equal outcomes. In special education, we seek to place the student with special needs in "the least restrictive environment". For the gifted student, the mixed-ability class may not be the least restrictive environment, while for the highly gifted it is arguably the most restrictive environment we could devise (Silverman, 1989; Gross, 2004). In planning class structures and student placements, we should remember that the client group which the education system is set up to serve is not the teaching body, the school administration, or even the parents, but the children themselves.

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