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## A Comparative Study on Oral Expressive Abilities between Moderately Mentally Retarded Children and Normal Elementary School Children

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### ABSTRACT

The purpose of this study was to compare the abilities of moderately mentally retarded children with that of normal children in the areas of: vocabulary, number of sentences, mean length of utterance in morphemes, variation in vocabulary, frequency of simple sentences, complex sentences, compound sentences, number of faulty sentences and nonsentences, and rhetoric.

The subjects were seventy-eight moderately mentally retarded children and seventy-eight normal children. They were paired by age and sex. Self-designed dolls were used as the stimulus for conversation. Data was obtained primarily through observation of conversation following a play period and through observation of individual story-telling.

The main findings were as follow:

1. The moderately mentally retarded children used less vocabulary than normal children. However, the vocabulary used by the mentally retarded children was increased with their age just like that of the normal children.
2. The number of sentences used by the mentally retarded and the normal children did not differ, but, the Mean Length of Utterance in Morphemes of the mentally retarded children was shorter than that of the normal children. However, both of their MLU increased with age.
3. There was a difference in the frequency of their use of complex and compound sentences between the two groups. The syntax of normal children increased in complexity in relation to their age, but that of the mentally retarded children did not.
4. The number of faulty sentences and nonsentences of the mentally retarded children was greater than that of the normal children. The number of faulty sentences of the normal children decreased along with their age, but that of the mentally retarded children did not. The ratio of faulty to faulty sentences of the mentally children was also higher than that of the normal children.

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## Social Status of Gifted Students in Taiwan, R.O.C as Assessed by their Age/ Grade Peers.

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### ABSTRACT

This study investigated the social status of gifted children as assessed by their age/ grade peers in Taiwan, Republic of China. The gifted subjects were from grades 4-8, in both urban and suburban schools, who spent the larger part of the academic day in the regular classroom while partaking in a resource, or pull-out gifted program. All students completed a sociometric nomination instrument in which they rated their classmates. A 2 (Gender) by 2 (Group, gifted v non-gifted) analysis was used to investigate group differences in children assigned by their peers to popular, rejected, neglected, or controversial group status. Gifted children are as popular as non-gifted children, although there may still be cause for concern about the percentage of gifted girls who are nominated. Although non-gifted boys are the most frequently nominated as "liked most" of all the groups, they are also more likely to be nominated as "liked least." No gifted students were assigned to the unpopular group. Gifted children are no more likely to be considered neglected or controversial than their non-gifted counterparts. Students at the elementary level are more likely to be considered controversial than at the junior high level.

Children do not learn in isolation. In this interdependent world, it is essential to cooperate comfortably with different people. A theoretical justification for this idea has been in evidence since Vygotsky introduced the concept that

knowledge is social. Vygotsky (1978) emphasized that we learn from other people and that a child's development is very much a product of his/her participation in the social world. Cornell (1990) describes peer relations as a

"critically important factor in child development" reminding his readers that theorists from Piaget to Erikson have emphasized a child's interactions with peers as providing a context not only for cognitive development, but for the growth of social skills, the evolution of self-concept, and the establishment of moral and social values (Erikson, 1963; Piaget, 1965). All educators must recognize the importance of establishing a learning environment which fosters peer interaction, and nowhere is this more important than in classroom where gifted children are integrated with peers not designated as gifted.

Self-esteem, social skills, rejection and loneliness have been in the forefront as areas of concern to educators of adolescents in recent years. Gifted children, particularly, have appeared to be at risk in social situations, more especially, perhaps in the mainstreamed classroom, and, given their precocity, this may sometimes be evident as early as in the fourth grade.

The social relationships of all gifted children appear to follow certain behavioral patterns. They establish attachments and relationships with other gifted children, with older non-gifted individuals, and with adults, more easily than with their non-gifted peers (Janos et al., 1985). Yet, the gifted adolescents, in the western world, typically complain that they do not have enough compatible friends, and that being gifted makes it difficult for them to be friends with less gifted peers. They also confess to feelings of loneliness and social distance

(Maddux, Schneiber, & Bass, 1982).

Adolescence is a particularly challenging period of growth for all children, with changes occurring across all aspects of development—physical, cognitive, sexual, and often spiritual. During these turbulent years adolescents move away from the social orientation of their early years. Gifted children, with the precocity of thought and development which often accompanies their giftedness, tend to do so earlier than most. At this time they become more sensitive to the underlying motivations of other individuals and seek friends who value them for themselves rather than for material possessions (Gardner, 1983). They are discovering their identity, establishing personal values, and developing self-esteem, thus positive peer interactions are of vital importance to them.

Children rejected by their peers are more likely to become school drop-outs, criminals, or delinquents, and to have problems with psychological adjustments as adults (Parker & Asher, 1987). This empirically based finding, supported by longitudinal data, highlights the importance of peer relationships for all children. Much of the research into the peer status of gifted children is fairly recent, and most studies have refuted the stereotypical image of the gifted child as a social misfit rejected by peers (Austin & Draper, 1981; Montemayor, 1984). Nevertheless, studies which have addressed the peer ratings of gifted students from regular classroom peers across different age levels have resulted in findings which are much less consistent for adolescents (Gallagher, 1958; Schneider, 1987; Schne-

ider et al. 1989). Data have emerged which indicate that some, though not all, gifted children are at risk of being rejected or ignored by their peers (Coleman & Cross, 1988).

In studying the assessment of the social status of gifted students by their age peers, Luftig & Nichols (1990) found that students not identified as gifted were rejected more than gifted pupils. An important result of the same study, however, indicated that gifted girls are the least popular group in the mainstreamed classroom. This would appear to suggest that "gifted girls may be at significant social risk" (Luftig, & Nichols, 1990, p.11), and is in accordance with other studies of dilemmas which face the gifted girl. Bell (1989) writes that girls who exhibit outstanding academic ability, intense commitment to their chosen interests, leadership and critical judgment are at risk in public schools today (Callahan, 1980; Rodenstein, Pflieger, & Colangelo, 1977). Other studies confirm that by fourth grade, they begin to lose self-confidence, become extremely self-critical, and often lower their effort and aspirations in order to conform to gender stereotyped social aspirations (Robinson-Awana, Kehle, & Jenson, 1986).

Most of the researchers involved in such studies as the above subscribe to the opinion that gifted girls receive conflicting societal messages in terms of the demands placed upon them by their environments. They are expected, even urged, to be nurturing, docile, and supportive on the one hand, and to be assertive, and if necessary, aggressive in the pursuit

of their own goals and the full development of their gifts and talents on the other. This conflict may lead to unfortunate peer relations between them and their non-gifted counterparts. Their talents are sometimes resented by their same-sex peers, and they lose popularity because they have the integrity to strive for academic excellence (Bauman, 1986; Sadker & Sadker, 1985).

All children need to feel that they are valued and accepted by their peers, and since gifted children tend to react more intensely to stressful situations when compared with average children in the same situations (Farrell, 1989), feeling unpopular in the classroom may have very serious effects.

Luftig & Nichols (1990) assessed the degree of social acceptance of gifted children by their age peers in integrated academic settings. Social relationships were examined relative to the four social status types: **Popular, Rejected, Neglected, and Controversial** (Coie & Dodge, 1983).

Luftig described popular children as those who are actively nominated on "most liked" socio-metric items, while unpopular or rejected children are frequently nominated on the "least liked" socio-metric questions. Those children who are largely ignored by their peers, and who therefore are not named on either most-liked or least-liked items are termed "neglected". Some children, usually very few, are chosen as both most-liked and least-liked and are thus called "controversial."

Certain social behaviors have been correlated with each of the above social

1987). Although the descriptions may be over-simplified it appears that: Popular children tend to be cooperative in groups, and to engage in leadership behaviors which allow them to provide positive reinforcement to others, as well as facilitating tasks, and allowing their peers to be successful. Rejected children are those who act intrusively or impulsively towards their peers, often using verbal or even physical aggression. Children described as rejected tend to remain on the outskirts of social interaction situations, and are often shy and withdrawn.

Luftig's findings that gifted children are less often rejected than their non-gifted peers are in accord with other studies of the social status of gifted children. It is not surprising that, among all adolescents, boys are rejected more than girls. That gifted boys are the most popular group in the regular classroom may be reflective of the classroom climate and the teaching methods. But that gifted girls are the least popular group may prove to have far-reaching ramifications for those gifted girls.

Stanley (1989), in an article comparing mathematically gifted Chinese students with the same in America, complimented the Chinese on the treatment of their female students and the recognition of their mathematical talents. Commenting on the fact that the United States has *never* had a woman on its International Mathematical Olympiad team, he reported that China has done so each year. Stanley also stated that these young ladies have won medals each year and attributes this to the fact that, "China knows something that most other

countries don't." This happy picture of gifted females is in contrast with the picture painted in "Woman in Chinese Society" (Wolfe & Witke, 1979) published just ten years previously. This series of eight scholarly papers presents conflicting images of women in a geographical region that ranges from Taiwan to Yenan, from the wealthy urban families of the intelligentsia to rural workers in silk factories, and temporally from the late Ming dynasty to the People's Republic. Evidence for a conflicting Chinese conception of women, gifted nor not, as both weak, timid, and sexually exploitable and dangerous, powerful, and sexually insatiable is not congruent with Stanley's happy picture of well-treated and appreciated female students.

Luftig & Nichols (1990) derived three hypotheses from former research. One, gifted children may be impatient perfectionists who are unable to tolerate slowness or errors on the part of others, and thus may suffer active rejection from their non-gifted peers (Perrone, 1986). Secondly, they may become shy and withdrawn, 'hiding' their natural talents and abilities in order to appear 'normal', (Van Tassel-Baska, 1989) therefore their peers will tend to ignore or neglect them. Thirdly, Luftig suggests that engaging in pro-social, cooperative and reinforcing behavior with peers would predict popularity in the mainstreamed classroom. The results of his study in assessing the social status of gifted children find gender differences in acceptance of these hypotheses.

This present study replicates the Luftig study in an attempt to investigate

whether the social status of gifted children in Taiwan, Republic of China, assessed by their same-age peers, is comparable to that of gifted children in the USA, and also, whether the same gender differences in social acceptance exist for gifted children in mainstreamed classes in Taiwan. Wu (1989), cites the work of Kuo (1979, 1983) in stating that the issue of placement in self-contained special classes versus the resource room model is still not resolved in Taiwan. The above researchers concentrated on levels of anxiety among the students, as well as their self-confidence, and academic achievement. They discovered that the math and science achievement of students did improve in self-contained classes, but that personal adjustment studies indicated mixed results. Similar findings resulted from two further studies at the junior high school level between 1979 and 1982.

According to Wu, (1989) parents of gifted children prefer the self-contained programs, but whether such placement facilitates or hinders the personal/social development of gifted children has engendered much public concern. Recently educators and government personnel in Taiwan are advocating more support for the mainstreamed classroom/pullout, or resource room types of program, although there is little research evidence to justify the superiority of this scheme over the self-contained program.

## Methodology

### Subjects

Subjects in this study comprised

1,390 students in total, recruited from two school districts, one urban and one suburban, in Taiwan, Republic of China. They were all the students in grades 4-8 of schools which integrate gifted children into regular education classes, while serving their gifted needs through pull-out (Resource) programs. This means that for most of the day gifted children share regular classroom activities with their age/grade peers who are not identified as gifted.

### Identification

Identification criteria for entry into gifted and talented programs in Taiwan are more stringent than in the western world. According to Wu (1992) it is a multi-assessment procedure. Subjects are first screened by the school, through group intelligence tests, students' daily performances, and teachers' observations and recommendations. Next a series of group and individual standardized tests are administered by the school, to the top ten percent screened as potential candidates, under the supervision of the university guidance institute. These tests include the Stanford-Binet, WISC-R, Raven's Progressive Matrices, Torrance Test of Creative Thinking and other preferred academic achievement tests. According to national education law, students must (a) receive a score higher than two standard deviations above the mean on the IQ test given at the beginning of every school year, and (b) have a grade point average in the top 2% of their class, or receive a score that is higher than one standard deviation above the mean covering all subjects in the curriculum (Stevenson et al. 1992).

Sometimes more flexible conditions may be applied according to committee recommendations.

In order to be considered gifted in the specific areas of mathematics or science, students must receive a score higher than one standard deviation above the mean on a high level achievement test in mathematics or science or on a test of intelligence or creativity. In addition, they must have a grade point average in the top 1% of their class in mathematics or science, and have performed well in a national or international competition.

Wu (1992) further reports, "For entry to special classes for the artistically and musically talented, children are assessed through their performance" as well as through a series of artistic or musical aptitude tests. As to the talented in dance, the eligibility criteria are mainly focused on dancing performance. However, in order to be classified as talented, an above average IQ is an essential requirement. Stevenson et al. (1992) are even more specific in stating, "The criteria are equally stringent for students talented in other areas" (than mathematics and science). "...They must receive an above average score on an IQ test and a score of at least two standard deviations above the mean on aptitude tests measuring their special talent. They also must have distinguished themselves in some national or international contest."

Once a student in Taiwan has been identified as gifted or talented, a committee made up of teachers and administrators from the student's school submits a report to the education department of the local city government. After further

screening by the department, qualified students are placed in appropriate special programs or special schools. The students in this study were identified as "generally intellectually gifted" and their individual pull-out programs were designed specifically for their particular schools, and differed from school to school.

### Subject Groups

Some data were eliminated from the total, as the researcher considered that the data would be atypical, when it was realized that three classes at the Junior High level were single sex classrooms, two all-male and one all-female. The remaining subjects numbered 1,244.

Of the total subjects in the Taiwan study (1,244) the identified gifted students equaled 115, with 1,129 classmates who had not been identified as gifted. 72 of the gifted students were boys, and 43 were girls. Of the non-gifted students 570 were male and 559 were female. Of the total student population in this study 9.2% were identified as gifted. The gifted male students accounted for 5.8% of the total, with the gifted girls equalling 3.4%. Among all the male students 12.6% were identified as gifted, while among the girls the identified gifted students represented 7.6%

In the Luftig & Nichols study in Ohio, the researchers reported 13% of all students were identified as gifted students. Of that total, approximately 5% were boys and 8% were girls, with the gifted boys equalling 10.4% of all boys, and the gifted girls totaling 15% of all girls.

### Instruments

All students in the thirty-six classes

completed a peer nomination form (Luftig, 1990) designed to measure peer status and relative popularity, which had been translated into Chinese. It consisted of six separate questions in which students nominated three of their classmates whom they "liked most" or "liked least," as well as naming those with whom they would like to interact in non-school situations. These

social situations included "inviting to a party," "eating lunch with," and "having over to your house after school." The last of the six questions asked students to name three of their classmates whom they would like to have as a class friend. The English version (Luftig, 1990) is in Table 1. below.

Table 1. Nomination Questions

1. Name up to three students in your class whom you like the *most*.
2. Name up to three students in your class whom you like the *least*.
3. Name up to three students in your class you would like to invite to a party.
4. Name up to three students in your class you would like to eat lunch with.
5. Name up to three students in your class you would like to invite to your house.
6. Name up to three students in your class whom you would like to be your class friend.

### Procedure

The students were tested in their regular classes, and were seated so that they could see each other while making their nominations. Children who were not present in school on that particular day were still included in the nominations. All children in Chinese schools are assigned a number in the class, and they are very familiar with each other's names and numbers.

All of the questions were read orally to the children as they followed the written format, and afterwards they had two minutes to nominate up to three children for a given question. The children did not report any difficulty with this method of making their nominations.

### Scoring

Nominations for all items were tallied

for each student and composite popularity and unpopularity scores were computed. Standard scores were then derived for the variable of popularity (Liked Most) and the variable of unpopularity (Liked Least). The scores from questions 1 and 2 were used to generate Social Preference scores. The nomination scores of all students were tallied for the questions related to social situations, questions 3-6, and standard scores were derived from the composite totals. These were then used to generate a Social Impact index for each student. From these scores, four extreme social status types were defined. Children described as "Popular" were those whose Social Preference standardized score was greater than 1.0, whose standardized score for Liked Most was greater than 0, and whose standardized

score for Liked Least was less than 0. *Unpopular* children, described as " *Rejected*" were those children receiving a Social Preference score of less than -1.0, with a Liked Most score of less than 0 and a Liked Least standardized score of greater than 0. The third group, *Neglected* children, differ from *Rejected* children in that they receive fewer Liked Least nominations. They were described as having a Social Impact score of less than -1.0 and Liked Most and Liked Least standardized scores of less than zero.

Luftig & Nichols (1990) identified a group of *Controversial* children, who received scores greater than zero in all three classifications. Since there were so few children in the group, they did not continue with the analysis. With greater numbers it was considered feasible to examine the controversial subjects in this present study.

**Results**

A 2 (Group-gifted v non-gifted) x 2 (Gender) analysis of variance was conducted for each of the four social status types. Table 2a shows the means and standard deviations of children judged to be popular. There were no significant differences between the means, but a closer look at the percentages of students assigned to the Popular status, (see 2b.) is perhaps more revealing and seems to support the fact that gifted girls are the least popular of the four groups since only 4% of the Popular students were gifted girls. A Student-Newman-Keuls procedure in post-hoc analysis indicated no significant difference between any two groups.

A oneway analysis of frequencies of being nominated in Question 1. (Liked most) showed a significant between groups difference (DF 3, 1295, F = 13.79, p < .001) indicating that non-gifted boys were most likely to be nominated as popular by their peers. There was no difference between gifted boys and gifted girls, but gifted students were less likely to be nominated than either of the non-gifted groups. Non-gifted girls were nominated less frequently than non-gifted boys.

**Table 2a Means and Standard Deviations of Social Preference by Group and Gender**

	Popular Status			
	Boys		Girls	
	$\bar{X}$	s	$\bar{X}$	s
Gifted	1.66	.57	1.84	.30
Non-gifted	1.74	.64	1.70	.69

**Table 2b. Percentages of Social Preference by Group and Gender**

	Popular Status	
	Boys	Girls
Gifted	16.5%	4.0%
Non-gifted	35.4%	44.1%

For the Unpopular (Rejected) variable it was not possible to compare means and standard deviations by group since no gifted students were described as unpopular according to the designated criteria. An even more remarkable result, which will be discussed later, is that from a total of 1,244 subjects, only six non-gifted children were described as

Unpopular. SNK post hoc analysis for the whole population regarding Question 2 (Like least), however, revealed significant between group differences (DF 3, 1295, F = 9.41, p < .001). *Non-gifted* boys were significantly more likely than the other three groups to be nominated by their classmates as "least likes".

**Table 3. Means and Standard Deviations of Social Impact by Group and Gender**

	Neglected Status			
	Boys		Girls	
	$\bar{X}$	s	$\bar{X}$	s
Gifted	-2.22	.93	-2.31	.91
Non-gifted	-2.44	.82	-2.35	.88

**Table 4. Means and Standard Deviations of Social Preference by Group and Gender**

	Controversial Status			
	Boys		Girls	
	$\bar{X}$	s	$\bar{X}$	s
Gifted	3.31	.00	2.47	2.20
Non-gifted	2.91	2.1	4.40	3.1

No significant differences were found between group means and standard deviations for either gender or kind (gifted v non-gifted) in the status of Neglected or Controversial.

Since numbers at each grade level, although larger than in the Ohio study, did not warrant investigation of the results at grade level, it was decided post-hoc to investigate the effect of

school level. Since sixth grade is still part of Chinese elementary schools, the data were separated into 2 levels: 4th, 5th, and 6th grades comprising Level 1, and 7th and 8th grades comprising Level 2.

A threeway analysis of variance indicated that Level of school appears to have no effect on the Popularity or Unpopularity variables, nor on the Neglected variable. For the Controversial variable there was a significant Main Effect (DF 1, 33, F = 4.79, p < .05) with more children being considered controversial at the elementary level.

**Discussion**

Many wide and varied viewpoints have been expressed in the western world regarding the social skills and peer status of gifted students. The two most extreme descriptions portray gifted individuals as, on the one hand, possessing charm and a pleasant nature along with their identified gifts and talents. Awanbor (1991) describes world-wide general traits of giftedness as, "high intellectual ability, social leadership, and creativity." The second view, on the other hand, considers them to be somewhat supercilious or arrogant, verbally aggressive, and almost anti-social in certain behaviors. Many studies of the peer relations of gifted students have focused on refuting the stereotype that they are social misfits who are rejected by their classmates. A third picture has been recently postulated portraying the gifted child as a shy, socially retiring person who is often ignored in the regular classroom environment. Luftig (1990) asks which of these is the real picture of gifted children while

assessing their social status according to their peers.

The present study supports Luftig in his assertion that gifted students are no more likely to be rejected by their peers than any other group, but it also indicates that, in Taiwan, at any rate, neither are they found to be more popular than other groups. This is not surprising in Chinese culture, since the reasons put forward for the popularity of some gifted students, that they are cooperative, non-aggressive and unthreatening, pertain to most students in Chinese classrooms.

Gifted girls are not nominated as "liked most" as often as gifted boys, or non-gifted students, which may indicate that there is still a cause for concern about their peer relationships. When one considers, however, that they are very much a minority group in Taiwan, and that there is no significant difference between group means and standard deviations for the criteria of "Popular" group membership, it appears that Chinese gifted girls are in a more secure position than those in the western world. Gifted children were nominated by fewer peers in the present study as being "least liked" than their non-gifted counterparts. Perhaps Stanley (1989) was right and the Chinese do indeed "know something that the rest of the world does not know."

It is interesting to note that out of 1244 subjects, only six students fulfilled the criteria for inclusion in the Unpopular group. Perhaps this is reflective of the Chinese culture and philosophy which encourages the population as a whole to

speak well of others. From the earliest age Chinese children must be respectful of other individuals, and bonds of friendship are developed as early as first grade which remain throughout the life span. Each individual has a duty to support and protect any classmate who needs his/ her help not only while they share their schooling, but at any time in the future. This responsibility is taken very seriously by all Chinese, so it is not surprising that they find it difficult to regard each other in a negative light. The findings suggest that the few individuals who met the criteria for inclusion in the "unpopular" group, must have been extreme examples, none of whom was an identified gifted student.

This study supports Luftig's contention that gifted students are no more ignored by their age/ grade peers than non-gifted students are. Luftig & Nichols (1990) gave an interesting explanation of this finding, saying that it makes sense in the light of "studies which have depicted gifted pupils as generally outgoing, socially adept individuals." He cites Weiss and Gallagher (1980) as stating that gifted children often make their presence known and felt in their classrooms. Does this finding of "no significant main effects for the variable of Neglected status" indicate that they, "may be liked or actively rejected, but gifted pupils are seldom ignored?" In Taiwan, it appears that no group of children is more neglected than any other. Conversely, it would seem that all groups of children are equally noticed by their peers.

Probably the most interesting result of this study will be that educators in Taiwan can take comfort in the fact that their gifted students are not being poorly served in regular classroom situations, and that their peer relationships are not suffering from being in a pull-out or resource room gifted program. Wu, (1989) suggests that parents are more in favor of self-contained, specialized gifted programs for their children, possibly because research has shown that academic achievement improves in self-contained classes. These classes, however, are expensive to maintain and government officials are more disposed to implementing pull-out, or resource-room, programs such as those serving the students in this study. Some critics have been also been concerned about whether affective development of students takes place satisfactorily in the self-contained classes (Kuo, 1983).

It will be gratifying for parents in both urban and suburban areas of Taiwan to know that at least one piece of research indicates that the social status of their gifted children, as assessed by their peers, is no different from the social status of any other group. They are not suffering from spending the greater part of the day with their age/ grade classmates in the regular classroom situation. Government officials together with regular and gifted classroom teachers can also be gratified that their idea about the affective side of keeping gifted children as much as possible with their age / grade classmates has proved beneficial.

#### Suggestions for future study

Investigations into the academic achievement of gifted students in self-contained classes in Taiwan have indicated that academic achievement is improved by such programs (Wu, 1986), and that students in self-contained classrooms performed better on assigned academic and creativity tasks than their counterparts assigned to resource classrooms. These are critics, however, who complain that the resource and regular classroom curricula are not sufficiently integrated, so that students who try to keep pace with both are overburdened (Stevenson et al., 1992, Wu, 1986). Similar situations in the western world have led to complaints from gifted students that they are "penalized" for being gifted. Parents and teachers, as well as administrators and government officers, tend to become emotionally involved when the futures of children (as well as budgetary considerations) are at stake. Investigations from objective outside observers may prove helpful in guiding program planners in this very delicate area of decision-making. Gifted education in Taiwan is not problem free. It is important that every aspect of the opposing views is investigated fully. If the expense of maintaining self-contained programs is such that these programs are depriving other educational agendas of much-needed resources, then government officials are wise to investigate further. If academic advancement is the goal of gifted education, then the academic results of pull-out programs must be further compared with those of self-contained programs in order to discover

what are the variables which create differences in achievement.

It is universally acknowledged that even without these specifics Chinese students give an outstanding account of themselves in all fields of competitive endeavor with the rest of the world. The students who compete, as in any country, are the stars, the outstanding and extreme achievers. It is a fervent hope that those responsible for guiding the gifted future of Taiwanese education will responsibly put the research to use in implementing all of the above, so that the identified gifted students in all the schools and all the programs will become the best that they can be.

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## 高一資賦優異學生生涯發展歷程之研究

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本研究採用個別訪談與調查法，以甄選保送臺北市建國中學與第一女中之高中一年級的資優學生46名為研究對象，並選取同校41名一般學生為對照組，由接受過訓練的訪談者，以個別訪談、配合兩種與生涯發展有關的心理評量工具，廣泛蒐集樣本資料，再透過反覆比較、歸納的程序，探究我國高中資優學生的生涯發展歷程、特性、困難及所需之協助。

研究結果發現(1)資優組學生與普通組學生在生涯發展歷程上的差異並不明顯，此可能與本研究所選之樣本皆為一流高中生有關；(2)樣本對生涯的理念並不完整，甚至有若干偏差的觀念；(3)四組學生的自我意識相當正向，唯在勝任感方面較弱，皆有對學業過度重視、以至產生相當明顯的焦慮、困惑的現象；(4)樣本需要更多資訊，但其需求多以解決眼前選組、選科系的問題為主，甚少提及生涯發展方面的問題；(5)父母與老師在高一學生生涯發展歷程中扮演相當重要的角色，唯有少數家長或教師所提供的為負向的學習楷模。

研究者根據研究結果，就生涯輔導工作、重要他人與學校教育措施、以及未來研究三方面，提出具體建議，做為進一步協助資優學生發展適切的生涯觀、選擇最能發揮其秉賦才華的生涯途徑之參考。

### 問題背景與研究目的

#### 一、我國資賦優異教育的發展與研究

孟子曰：「得天下英才而教育之，一樂也。」英才教育為我國教育一大特色，古代或一師一徒、或一師多徒，因無固定型的限制，

本研究承行政院國家科學委員會補助（NSC-81-03 01-H-003-03），國立臺灣師範大學特殊教育系、教育心理與輔導系同學之協助，臺北市立第一女子中學、建國中學之支持，以及研究助理王純娟、白政民之參與，得以完成，謹致由衷之謝意。

學生易於表現其特性，教師亦容易發現學生之所長，從而助長之，但自清末以來，學校教育定型，且以智育為重而又流於知識的灌輸後，資賦優異者的發展受到嚴重的斷喪（賈馥茗，民63）。有識者於民國五十一年第四次全國教育會議中，亟力呼籲重視資優教育，因此而開始「優秀兒童教育實驗」、「才賦優異兒童課程實驗」、「才賦優異學生教育實驗」等多項研究。

民國六十二學年度教育部正式頒行「國民小學資賦優異兒童教育研究實驗計畫」，自62學年度至68學年度為期六年，分北、中、南三