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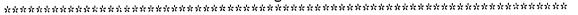
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#### **ABSTRACT**

The academic, social, and emotional benefits of acceleration are widely known. Yet criticism and reluctance to use this educational intervention persist. Some school personnel and families fear that children who accelerate through grades will experience serious social or emotional adjustment problems. This research project compared a nationally representative sample of well-adjusted and poorly-adjusted accelerants so as to examine the differences in adjustment among individual accelerants. The sample was drawn from the National Longitudinal Study: 88 data base. Surprisingly, results showed that the best adjusted and least adjusted accelerants were similar in many ways. There were no significant differences for gender, race, family size, birth order, family composition, income, educational level of parents, kind of school, percentage of minority students in their school, serious behavior difficulties, certain out-of-school activities, community type, or community location. However, parental involvement in a child's school and education, and access to accelerated, advanced, enriched, or gifted classes were more often associated with healthy adjustment. Therefore, the differences in well adjusted and poorly adjusted accelerants appear to be related to the ways that parents and schools interact with their students. Contains 16 references. (Author/RJM)

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## Running head: ADJUSTMENT OF ACCELERANTS

## Differences in the Psychological Adjustment of Accelerated Eighth Grade Students

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#### Abstract

The academic, social, and emotional benefits of acceleration are widely known. Yet, criticism and reluctance to use this powerful educational intervention persist. Part of school personnel's and families' reluctance are fears that the accelerant will experience serious social or emotional adjustment problems.

This research compared a nationally representative sample of well-adjusted and poorly-adjusted accelerants. The sample was drawn from the National Longitudinal Study: 88 data base. Its goal was to better understand the differences in adjustment among individual accelerants. Results indicate that parental involvement with the accelerant's school and education and access to accelerated, advanced, enriched, or gifted classes were more often associated with healthy adjustment. Other factors suggested by some writers did not distinguish healthy adjustment from poor adjustment. These included: gender, economic status, birth order, family size, community, region of the country, or private or public school.



# Differences in the Psychological Adjustment of Accelerated Eighth Grade Students

The recent report on the status of gifted education in the United States noted with some chagrin the large amount of on-level content gifted students have mastered before beginning the school year (O'Connell-Ross, 1993). The report called for more challenging opportunities for these students stressing flexibility and advanced learning opportunities. Unfortunately, few classroom provide these kinds of modifications (Westberg, Archambault, Dobyns, & Salvin, 1993). Nor are they part of the goals or objectives of the current educational reform movements (Gallagher, 1994). The effect of these omissions is an unintentional "dumbing down" of the school program for those students who would most benefit from advanced content or acceleration.

Acceleration, or more accurately developmentally appropriate placement of gifted students, provides a flexible way to address the needs of gifted students. Meta-analysis by Kulik (1992) provides extremely strong evidence of the academic benefit of acceleration. Accelerated students performed as well as their older counterparts and showed about a year's advancement over same-age, same-aptitude peers.

Although acceleration is an appropriate intervention, its wider usage is often blocked by teachers or administrators who believe acceleration will cause emotional or social problems for the student. Even coordinators of gifted programs worry that acceleration will be socially or emotionally inappropriate for those accelerated (Southern, Jones, and Fiscus, 1989). These roadblocks occur even though most



districts do not have explicit policies either allowing or rejecting accelerative options (Reis and Westberg, 1994). Instead, decisions regarding acceleration are made on the basis of informal policies and misconceptions.

As a group, students who had accelerated before grade eight showed no signs of social, emotional, or behavioiral maladjustment (Sayler and Brookshire, 1993).

Their adjustment was equal to or better than their non-accelerated gifted peers and regular eighth graders. The accelerants reported strong social relationships and healthy emotional development.

On the other hand, highly gifted youngsters who are not allowed to accelerate had social self-concepts that were a standard deviation below their age peers (Gross, 1994). The social self-concept of highly gifted children allowed to accelerate two or more years was an entire standard deviation above their age peers.

Some of the research on the social and emotional effects of acceleration focused on individual differences among accelerants. Cornell, Callahan, and Loyd (1991) suggested that individual personality and familial characteristics influence adjustment. Colangelo (1995) found that parental involvement with their elementary-aged gifted children facilitated high levels of academic performance. Even relatively passive involvement such as attending school events was useful. Greater effect was found for more active parental involvement such as asking about school and school work or volunteering for school activities.

A review of literature on developing talent into achievement for gifted individuals supported the families factor (Olszewski, Kulieke, and Buescher, 1987). Parents of



gifted adolescents valued academic achievement, hard work, success, and active and persistent involvement (Kulieke and Olszewski-Kubilius, 1989). These parents directed their gifted children towards appropriately challenging domains, disciplines, programs, or classes.

A series of case studies (VanTassel-Baska, 1989) indicated that the racial or economic status of gifted students were not as important as the family's values in facilitating these gifted students' successes. Successful disadvantaged gifted had supportive family members who demonstrated their personal strength of character and independence even when faced with difficult life situations. These family members worked hard and expected their gifted children to do so also. They showed an active interest in their child's schooling.

#### The Research Purpose

The research literature indicates acceleration is generally valuable and appropriate. Clearly, some individual differences in the social and emotional adjustment of accelerants do occur. The purpose of the current research was to find variables associated with well adjusted and poorly adjusted accelerants. This research is seen as preliminary and exploratory in nature.

#### Method

#### <u>Participants</u>

The sample used in this study were 371 accelerated eighth-grade students drawn from the 24,599 participants in the NELS:88 data base (Ingles, et al., 1989). Some



accelerants had entered kindergarten or first grade early while others had skipped various grades between kindergarten and grade eight.

#### **Instruments**

The National Education Longitudinal Study: 1988 (Ingels, et al., 1989) was the first stage in a multi-year longitudinal tracking of students in American schools. Data used from the NELS study included accelerant and parent answers to survey questions, a measure of each accelerant's global self-concept, and a measure each accelerant's locus of control. Survey items were selected that might distinguish between well adjusted and poorly adjusted accelerants (Table 1).

Table 1
Variables With Potential Impact on the Adjustment of Accelerated Students

parental involvement

passive active

kinds of classes taken

grades six through eight

demographics

gender ethnicity

regionality community type type of school attended

family income parents' educational background

birth order

family size

family composition

acceleration data

when accelerated how much accelerated

perceptions of how other see accelerants

as popular as important as good student

as athletic as trouble maker

after school activities

encouragement received from teachers

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#### Procedures

The accelerated students were divided into four groups: 1) those accelerants with the most internal locus of control (the top quarter of the group on this variable), 2) those accelerants with the most external locus of control (the bottom quarter of the group on this variable), 3) those accelerants with the best general self concepts (the top quarter of the group on this variable), and 4) those accelerants with the poorest general self concept (the bottom quarter of the group on this variable).

Differences were computed by chi-square analysis. A significance level of  $\underline{p} \leq .01$  was used in order to control for inflated alpha levels due to the number of analyses run. The relative power of the differences was calculated with effects sizes given for each comparison (Cohen, 1988).

#### Results

Analysis of the differences between poorly adjusted and well adjusted accelerants produced many insignificant differences. In part, this lack of discrimination may be due to the lack of precision in the instruments used to measure psychological adjustment. Instruments with finer discrimination may have picked up additional differences not noted with the NELS:88 measures.

Areas Favoring Students with High Levels of Internal Locus of Control.

Several differences of significant and moderate power were found when the accelerants with the highest scores (most internal) on locus of control were compared with the accelerants with the lowest (most external). Accelerants with internal locus of control tended to have parents who took at least a passive interest



in their child's school. Their parents were more apt to discuss school programs,  $\chi^2(2, \underline{N}=187)=15.87$ ,  $\underline{p}<.001$ ,  $\underline{d}=.36$ , school activities,  $\chi^2(2, \underline{N}=188)=11.75$ ,  $\underline{p}=.003$ ,  $\underline{d}=.25$ , and things the accelerant had studied,  $\chi^2(2, \underline{N}=192)=17.39$ ,  $\underline{p}=.001$ ,  $\underline{d}=.30$ . Parents of the most internally oriented students also tended to be more actively involved. They were more likely to attend school meetings,  $\chi^2(2, \underline{N}=171)=12.07$ ,  $\underline{p}=.001$ ,  $\underline{d}=.27$ , school events,  $\chi^2(2, \underline{N}=177)=14.13$ ,  $\underline{p}<001$ .,  $\underline{d}=.28$ , and PTA or PTO meetings,  $\chi^2(1, \underline{N}=202)=9.95$ ,  $\underline{p}=.002$ ,  $\underline{d}=.27$ . Parents of the internally orientated accelerants were more likely to report they not only attended PTA/PTO meetings, but took active part in the activities sponsored by the organizations,  $\chi^2(1, \underline{N}=168)=11.67$ ,  $\underline{p}=.001$ ,  $\underline{d}=.26$ .

Accelerants with internal locus of control were much more likely to report their teachers praised their efforts,  $\chi^2(3, \underline{N}=185)=11.52$ ,  $\underline{p}=.009$ ,  $\underline{d}=.25$ , and that most of their teachers listened to them and their ideas,  $\chi^2(3, \underline{N}=186)=12.39$ ,  $\underline{p}=.006$ ,  $\underline{d}=26$ . On the other hand, those accelerants with the most external orientation felt "put down" by the teacher's in their classrooms,  $\chi^2(3, \underline{N}=185)=28.17$ ,  $\underline{p}=.00$ ,  $\underline{d}=39$ . This lack of support from teachers was not related to behavior problems, as both the internally and externally oriented accelerants had similar low levels of behavior problems.

The internally orientated accelerants were more likely to say their peers saw them as good students,  $\chi^2(2, \underline{N}=187)=10.54$ ,  $\underline{p}=.005$ ,  $\underline{d}=.24$ , or as important in the class or school,  $\chi^2(2, \underline{N}=185)=18.24$ ,  $\underline{p}<.001$ ,  $\underline{d}=.31$ . No differences were found in



three other self-reported peer beliefs: how athletic, popular, or how much of a trouble maker the accelerants were.

The kinds of classes taken and grades received were different for the accelerants at the extremes of locus of control. Internally oriented accelerants were more likely to have been in classes grouped by ability in English,  $\chi^2(4, \underline{N}=182)=28.98$ ,  $\underline{p}<.001$ ,  $\underline{d}=.40$ , science,  $\chi^2(4, \underline{N}=182)=22.37$ ,  $\underline{p}<.001$ ,  $\underline{d}=.35$ , and in social studies,  $\chi^2(4, \underline{N}=180)=21.89$ ,  $\underline{p}<.001$ ,  $\underline{d}=.35$ . They were more likely to be taking Algebra,  $\chi^2(2, \underline{N}=192)=13.28$ ,  $\underline{p}=.001$ ,  $\underline{d}=.26$ , and to be in gifted classes,  $\chi^2(1, \underline{N}=179)=9.94$ ,  $\underline{p}=.002$ ,  $\underline{d}=.24$ . Internally orientated accelerants reported getting higher final scores in grades six through eight in mathematics,  $\chi^2(4, \underline{N}=146)=15.40$ ,  $\underline{p}=.004$ ,  $\underline{d}=.32$ , English,  $\chi^2(5, \underline{N}=147)=13.94$ ,  $\underline{p}=..016$ ,  $\underline{d}=.31$ , science,  $\chi^2(5, \underline{N}=146)=16.40$ ,  $\underline{p}=.006$ ,  $\underline{d}=.34$ , and in social studies,  $\chi^2(5, \underline{N}=145)=21.46$ ,  $\underline{p}=.001$ ,  $\underline{d}=.38$ .

Although internally oriented accelerants did not differ from externally oriented ones in many areas of out-of-school activities, there was one difference. Internally oriented students were more likely to be involved with youth groups sponsored by their church or synagog,  $\chi^2(2, \underline{N}=171)=7.21$ ,  $\underline{p}=.027$ ,  $\underline{d}=.21$ .

Areas Favoring Students with High Levels of General Self Concept.

Fewer variables differentiated accelerants with the highest levels of general self concept from accelerants with the lowest self concepts. The students with the highest self concepts were much more likely to have parents who were actively involved in school activities than those accelerants with low self concepts. The parents of the accelerants with good self concepts were more likely to attend



meetings held by the school,  $\chi^2(1, \underline{N}=102)=14.13$ ,  $\underline{p}=.001$ ,  $\underline{d}=.$ , 33, and to take an active role in PTA/PTO activities,  $\chi^2(1, \underline{N}=168)=11.67$ ,  $\underline{p}=.001$ ,  $\underline{d}=.$ , 26.

Accelerants with good self concepts reported receiving more praise from their teachers,  $\chi^2(3, \underline{N}=107)=19.10$ ,  $\underline{p}<.001$ ,  $\underline{d}=.42$ , and having teachers regularly listen to them,  $\chi^2(3, \underline{N}=108)=18.05$ ,  $\underline{p}<.001$ ,  $\underline{d}=.43$ , than did the accelerants who had poor self concepts. Those with poor self concepts were likely to report they felt "put down" by their teachers,  $\chi^2(3, \underline{N}=108)=23.07$ ,  $\underline{p}<.001$ ,  $\underline{d}=.46$ . Interestingly, no significant differences in the final scores received in grades six through eight were found between the accelerants with the highest and lowest self concepts.

The accelerants with good self concepts were more likely to be enrolled in ability grouped classes in English,  $\chi^2(4, \underline{N}=107)=17.57$ ,  $\underline{p}=.001$ ,  $\underline{d}=.41$ , science,  $\chi^2(4, \underline{N}=107)=15.20$ ,  $\underline{p}=.004$ ,  $\underline{d}=.38$ , and in social studies,  $\chi^2(4, \underline{N}=106)=22.83$ ,  $\underline{p}<.001$ ,  $\underline{d}=.46$ . They were more likely to be taking Algebra,  $\chi^2(2, \underline{N}=190)=11.49$ ,  $\underline{p}=.003$ ,  $\underline{d}=.25$ . They participated more often in enriched, advanced, or accelerated classes and were more likely to be in gifted classes,  $\chi^2(1, \underline{N}=106)=11.27$ ,  $\underline{p}=.001$ ,  $\underline{d}=.33$ . They were more likely to have received high grades in English,  $\chi^2(1, \underline{N}=106)=8.38$ ,  $\underline{p}=.004$ ,  $\underline{d}=.28$ , and science,  $\chi^2(1, \underline{N}=105)=7.32$ ,  $\underline{p}=.007$ ,  $\underline{d}=.26$ ,

Accelerants with a good self concept were more likely to say their peers saw them as popular,  $\chi^2(2, \underline{N}=104)=14.37$ ,  $\underline{p}=.001$ ,  $\underline{d}=.37$ , athletic,  $\chi^2(2, \underline{N}=106)=12.22$ ,  $\underline{p}=.002$ ,  $\underline{d}=.34$ , a good student,  $\chi^2(2, \underline{N}=108)=16.64$ ,  $\underline{p}<.001$ ,  $\underline{d}=.39$ , and as important in the class or school,  $\chi^2(2, \underline{N}=106)=27.70$ ,  $\underline{p}<.001$ ,  $\underline{d}=.51$ .



#### Discussion

Surprisingly, the most-adjusted and least-adjusted accelerants were similar in many ways. There were no significant differences for gender, race, family size, birth order, family composition, income, educational level of parents, kind of school, percentage of minority students in their school, serious behavior difficulties, certain out-of-school activities, community type, or community location.

Healthy adjustment for accelerants was associated with strong parental involvement with their gifted child's education. Well adjusted accelerants had parents who asked them about school, and how his or her classes were goin; who discussed the things their child was doing at school; who came to school to meet teachers, attended meetings, and became involved in school projects; and who volunteered for activities that involve the student and the school.

Additionally, h althy psychological development was associated with placement in accelerated, enriched, ability grouped, or gifted classes. The connection between participation in advanced or fast-paced classes and academic success and motivation have been previously documented (e.g.: Benbow and Arjmand, 1990).

The differences in well adjusted and poorly adjusted accelerants appear to be related to the ways their parents and schools interact with the students. This is an encouraging finding as these interactions are conditions that families and schools can modify. We have no control over birth order, gender, or ethnicity. For many families and schools there is little choice in community, region of the country, private/public school, or family size. The encouraging inference of this research is



that parents can facilitate the healthy adjustment of their accelerated children by being actively involved in their child's education. Schools can facilitate the chances for healthy adjustment of gifted children by providing numerous educational opportunities that advance, accelerate, or enrich the experiences of gifted children.

While there are several methodological problems with this study it does suggest several possible extensions. The simple use of multiple Chi Square and power analyses provides is not strong methodologically. They do provide a preliminary exploration of the data. This study identified several variables that seem to impact the psychological adjustment of accelerants. Future research should seek to identify the more complex identify underlying factors and paths. A discriminate analysis could be used to explicate more rigorously the differences between well adjusted and poorly adjusted accelerants. Finally, the data from the later years of the NELS study (1990, 1992, and 1994) could be added to enrich the data source or to verify any patterns found in the 1988 data.

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