

THE ATTITUDES OF DEAF AND NORMAL HEARING HIGH SCHOOLERS TOWARD SCHOOL, EACH OTHER AND THEMSELVES: MAINSTREAMED AND SELF-CONTAINED COMPARISONS

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ABSTRACT

Forty-seven deaf and normal-hearing high school-age students who were taught in either self-contained or mainstreamed classrooms were asked a series of questions about themselves, each other, school, and life generally. One-third of the students were randomly selected for follow-up interviews for external validation purposes. Deaf students in self-contained classrooms expressed significantly more negativism than did students from other educational milieus, although the hearing-impaired students seemed to share the same fear of the future that their normal-hearing peers expressed.

One interpretation made from the data suggested that deaf students may perceive the self-contained classroom as restrictive, perhaps because of comparisons made between it and the more open "mainstream milieu."

INTRODUCTION

Often teachers and researchers measure learning and explain it by describing input data and outcome products without looking into the classroom process itself. For over a decade, Special Education has been undergoing a change in the basic premises for educating handicapped children. The major thrust from this era has been the implementation of mainstreaming models of service delivery as alternatives to self-contained classrooms. This change has come about, in part, because of concern over the quality of life experienced by the handicapped student in self-contained settings (Budoff, 1976).

Special educators are generally in agreement that the quality of life issue encompasses three main areas: academic achievement, social and personal adjustment, and post-school adjustment (Cegelka and Tyler, 1970). The constituents of research studies into educational attitudes are often the students themselves and

while social interaction variables (Antia, 1982) and personal adjustment (Dowliby, Burke and McKee, 1983) have been studied as factors in the process of education, particularly in mainstreaming success, academic achievement tends to be the dependent variable of most interest to researchers (Gregory, Shanahan and Walberg, 1984). While academic achievement may be an important variable in determining the success of mainstreaming, it cannot be viewed in isolation. Another critical factor would seem to be the very nature of the attitude of the students involved. Kutner (1971) concluded that the attitudes of nonhandicapped students toward their handicapped peers were reflected by fear, hostility and aversion; and others have found that attitudes are often obstacles to the true integration of handicapped children within the school setting (Bowe, 1978; Vermeij, 1978).

As more and more hearing-impaired students are being taught in public schools rather than residential schools (Gregory, et al., 1984), the "mainstreaming" or integration into regular classrooms of hearing-impaired students is more frequent. While studies of its success have focused on academic correlates (Pflaster, 1981), social interaction variables (Antia, 1982), type of program (Karchmer and Trybus, 1977), and student attributes (Moore, 1982), few if any investigations have sought the direct input of mainstreamed students. Antia (1982) did quantify interaction between deaf and normal-hearing mainstreamed and partially-mainstreamed students and concluded that it did not happen naturally but required substantial teacher involvement.

Actually, and perhaps paradoxically, the whole process of socializing and acculturating the individual has been institutionalized in our society through our schools (Yee, 1971). This is not to say that the family is no longer the most important influence on a child's psychological and social development. However, the schools,

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through their curricular and extra-curricular programs, have become formalized environments through which children and adolescents establish personal and intimate relationships with peers and teachers as well as interact with life issues. A close examination of the classroom and the learning process reveals the importance not only in ideas, but also feelings. Perhaps this emphasis on ideas and social development in the schools and the degree to which students feel nurtured and stimulated determines the quality of educational life.

PURPOSE

This study identified the perceptions and attitudes held by high school-age deaf and normal-hearing students of themselves, each other and school. The purpose of the investigation was to describe the general attitude of deaf adolescents toward critical life variables and determine what if any influence mainstreaming might be having on it.

METHOD

Forty-seven deaf and normal-hearing high school juniors and seniors were asked to complete 2 nine-item questionnaires that were parallel in content and purposefully varied in form. Nineteen of the students were deaf and 28 had normal hearing. All of the students attended the same suburban public high school. Eleven of the deaf students were mainstreamed into academic classes and eight were taught in self-contained classrooms. Sixteen of the normal-hearing students attended classes that included deaf students and 12 attended "self-contained" classes. The unaided hearing losses of the deaf students ranged from 72dB - 105dB with a mean loss of 83dB in the better ear (ISO). All of the self-contained, deaf students had acquired their losses before the age of 3 years, while 9 of the 11 mainstreamed deaf students had. The hearing differences between the 2 groups were not statistically significant.

The students completed the 2 questionnaires one after the other in the same order. Approximately $\frac{1}{3}$ of each group were randomly selected for follow-up interviews with the investigator. The purpose of the interview was to establish external validation as well as upgrade the discrete data that resulted from the questionnaires. None of the questionnaires had to be discounted. All of the questioning and the interviewing was conducted in small groups over

one school day.

RESULTS

Because of the nature of the dependent measures, two two-way analyses of variance were performed. One set of data resulted from the responses to nine *yes-no* questions and the other set of data was obtained from responses to nine matching questions which required that a letter grade of A-F be assigned. Of the eighteen questions asked, four yielded significant differences under one or the other or both analyses (Tables 1 and 2). Significantly more deaf students in self-contained classrooms reported that they disliked their teacher (50%), than did normal-hearing students (8%). Table 2 shows that when students were asked to grade their teachers, deaf students in self-contained classrooms consistently gave significantly more C grades (62.5%) than did their normal-hearing counterparts (8.3%), although 17% of the normal-hearing students recorded D's for their teachers. On question 2, significantly more self-contained deaf students (37.5%) reported that they did not like their classmates than did their normal-hearing peers (0%); however, the corresponding letter-grade question did not yield a significant difference. Question 5 (Do you like school?) yielded a significant difference between deaf and normal-hearing students in self-contained environments under both analyses. Fifty percent of the deaf students did not like school while only 8% of the normal-hearing students indicated that they did not. On the more sensitive letter-grade analysis, 38% of the deaf students gave a grade of D to the school while C was the lowest grade given by normal-hearing students. When students were asked how well they liked their academic classes (Question 6), 75% of the self-contained deaf students gave grades of C or below while only 25% of the normal-hearing students did. This difference was significant ($F = .03$). On all other questions, there were no significant differences between the two groups of students under either environmental condition.

Generally the students seemed to like their classmates (Table 1, Question 3), although deaf students tended to give significantly stricter grades (Table 2, Question 3). The students tended to feel good about themselves (Question 4 and about their life conditions (Questions 7 and 9), and their future prospects (Question 8);

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although the normal-hearing students tended to feel less optimistic about the future than one might expect, at least based

on their rather positive attitudes toward their past and their present life conditions (Question 8).

TABLE 1
The Results Of The 9-Item Attitudinal Questionnaire Administered To The Students:
Reported In Percentages

QUESTIONS	MAINSTREAMED				F. LEVEL	SELF-CONTAINED				F. LEVEL
	Normal-hearing		Deaf			Normal-hearing		Deaf		
	Yes	No	Yes	No		Yes	No	Yes	No	
1. Do you like your teacher	87.5	12.5	100	0	.27	91.7	8.3	50	50	.03
2. Do you like most of your classmates	81.3	18.8	72.7	27.3	.22	100	0	62.5	37.5	.03
3. Do you like your handicapped classmates	100	0	81.8	18.2	.08					
4. Do you like yourself	93.8	6.3	90.9	9.1	.64	100	0	75	25	.10
5. Do you like school	50	50	54.5	45.5	.02	91.7	8.3	50	50	.03
6. Do you like your classes	68.8	31.3	54.5	45.5	.46	83.3	16.7	42.9	57.1	.12
7. Do you feel good about the past	81.3	18.8	72.7	27.3	.78	91.7	8.3	75	25	.46
8. Do you feel good about the future	66.7	33.3	72.7	27.3	.95	72	25	87.5	12.5	.32
9. Do you feel good about the present	75	25	72.7	27.3	.20	83.3	16.7	75	25	.36

DISCUSSION

Before the results are discussed, it is important to identify the limitations of this study, for there were some. While the hearing impaired groups were statistically comparable on the hearing variable, other factors that may have influenced the mainstreaming decision were not research variables in this study. Teachers reported that while mainstreaming decisions are made after both they and the students carefully consider the options, the teachers usually swing the decision one way or the other and usually their recommendations are based on experiences, both educational and social, with the students. In other words, mainstreaming decisions are not random (nor should they be); therefore, the two groups may be systematically different. Conceivably mainstreamed deaf students are more articulate, more aware and more likely to see and described opportunities that self-contained students don't (although those opportunities may still be there). This possible difference in the level of awareness of the 2 groups may have affected the outcome. However, the interview process revealed that all groups understood the questionnaires equally well.

A second caveat of this study that limits the extent to which the findings can be generalized is that SES, ethnicity and school achievement, as well as family history, were variables not

controlled. Their possible influence on attitudes cannot be ignored and further research on this question should include them in the design. However, the effect of sociological variables such as SES, ethnicity, etc. can cut several ways and bringing them under control is difficult; far beyond the scope of this study. The results are at least suggestive and should not be casually dismissed because of the methodological limitations of the study.

When attitudes were negative they were usually school-specific and expressed by deaf students in self-contained classrooms. It may be that the conditions which characterize self-contained classrooms are perceived as more restrictive by the students in them when they can be contrasted against the more open, heterogeneous milieu that characterizes the mainstreamed environment. While the data are not clear on this question, the fact that mainstreamed deaf students did not appear to share the pessimism of their deaf agemates in self-contained classrooms certainly means that the environmental explanation may be of some validity. During the interviews, one mainstreamed deaf student said, "I like being in hearing classes because the hearing students are more mature."

The apparent fear of the future expressed by the normal-hearing students is in accord with a trend reported by the National Education Association (1983). Several normal-hearing

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TABLE 2
The Results Of The 9-Item Questionnaire Administered To The Students:
Reported In Letter Grades

QUESTIONS	MAINSTREAMED		F- LEVEL	SELF-CONTAINED		F- LEVEL
	Normal-hearing	Deaf		Normal-hearing	Deaf	
1. I would give my teacher a grade of:	A	6.3	.31	A	16.7	.002*
	B	68.3		B	58.3	
	C	12.5		C	8.3	
	D	6.3		D	16.7	
	F	6.3		F	0	
2. I would give my classmates a grade of:	A	6.3	.26	A	25	.28
	B	43.8		B	33.3	
	C	37.5		C	33.3	
	D	6.3		D	8.3	
	F	6.3		F	0	
3. I would give my handicapped classmates a grade of:	A	43.8	.001*	A		
	B	50.0		B		
	C	0		C		
	D	6.3		D		
	F	0		F		
4. I would give myself a grade of:	A	0	.44	A	8.3	.44
	B	75		B	58.3	
	C	18.8		C	33.3	
	D	0		D	0	
	F	6.3		F	0	
5. I would give my school a grade of:	A	6.3	.40	A	33.3	.05*
	B	18.8		B	16.7	
	C	43.8		C	50	
	D	25		D	0	
	F	6.3		F	0	
6. I would give my classes a grade of:	A	0	.51	A	16.7	.03*
	B	37.5		B	58.3	
	C	50		C	16.7	
	D	6.3		D	8.3	
	F	6.3		F	0	
7. I would give my life up to now a grade of:	A	18.8	.39	A	25	.35
	B	56.3		B	58.3	
	C	18.8		C	16.7	
	D	0		D	0	
	F	6.3		F	0	
8. I expect the next 10 years of my life to earn a grade of:	A	56.3	.18	A	33.3	.46
	B	43.8		B	50	
	C	0		C	16.7	
	D	0		D	0	
	F	0		F	0	
9. Today I would give myself a grade of:	A	18.8	.32	A	16.7	.13
	B	56.3		B	50	
	C	18.8		C	33.3	
	D	6.3		D	0	
	F	0		F	0	

students indicated that they felt that their lives would be enriched if they could spend more time with deaf students and one deaf student

remarked, "I wish my teachers would give me harder work so that I could stay up with the hearing kids."

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REFERENCES

- Antia, R. D. (1982). Social interaction of partially mainstreamed hearing-impaired children. *American Annals of the Deaf*, 18-24.
- Bowe, F. (1978). *Handicapping America: Barriers to disabled people*. New York: Harper and Row.
- Budoff, M. (1976). His relation to the school administration, his teacher and his agemates. Paper presented at the Fourth International Congress of the International Association for the Scientific Study of Mental Deficiency: Washington, D.C.
- Cegelka, W. J. & Tyler, J. L. (1970). The efficacy of special class placement for the mentally retarded in proper perspective. *Training School Bulletin*, 67, 33-67.
- Dowaliby, F., Burke, N. and McKee, B. (1983). A comparison of hearing-impaired and normally-hearing students on locus of control, people orientation, and study habits and attitudes. *American Annals of the Deaf*, 53-58.
- Gregory, J. F., Shanahan, T. and Walberg, H. J. (1984). Mainstreamed hearing-impaired high school seniors: A re-analysis of a national survey. *American Annals of the Deaf*, 11-16.
- Karchmer, M. A. and Trybus, R. J. (1977). Who are the deaf children in "mainstream" programs? (Series R, No. 4) Washington, D.C.: Gallaudet College, Office of Demographic Studies.
- Kutner, B. (1971). The social psychology of disability. In W. S. Neff (Ed.), *Rehabilitation Psychology*. Washington, D.C.: American Psychological Association, 143-167.
- Moore, D. F. (1982). *Educating the deaf: Psychology, principles and practices, (2nd ed.)*. Boston: Houghton Mifflin.
- National Education Association, (April 2, 1983). *The Pantagraph*: Bloomington, Illinois.
- Pflaster, G. (1981). A second analysis of factors related to the academic performance of hearing-impaired children in the mainstream. *Volta Review*, 71-80.
- Vermeij, J. (1978). A blind teacher speaks out on teaching the blind student. *Today's Education*, 67 (4), 77-78.
- Yee, A. H. (1971). *Social interaction in educational settings*. Englewood Cliffs, N. J.: Prentice-Hall.