ANALYSIS OF EDUCATIONAL INTERPRETER SERVICES FOR HEARING-IMPAIRED STUDENTS

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In the early 1970s, serious consideration was given to the integration of hearing-impaired children into classes with normal-hearing children. A national survey of school administrators conducted in 1973 indicated that 80% of the respondents held positive attitudes toward some level of integration (Bitter, Grant, Johnson & Sorenson, 1973). Yet, in the same year, the Office of Demographic Studies reported that only 10.6% of hearing-impaired children in the United States were even partially integrated (Gentile, 1973). Moreover, when hearing-impaired students had been integrated, they were included with normal-hearing peers primarily for non-academic activities (Hurwitz, 1979).

Integration of hearing-impaired children into academic classes with hearing children occurred more frequently after the enactment of Public Law 94-142. This Act mandated that public schools extend educational options to assure appropriate services and an educational environment which would be least restrictive to the educational and social growth and development of handicapped children (Stuckless & Castle, 1979). For some hearing-impaired students, education for a portion of the day in a regular classroom could be considered an appropriate educational alternative which, when implemented, might help them to achieve prescribed learning goals (Bishop, 1979). The "least restrictive" clause in Public Law 94-142 likely influenced the integration of hearing-impaired students into regular classrooms.

With the increased integration of hearing-impaired students, interpreters might also be needed to facilitate communication and, thus, further reduce the restrictiveness of the program. Based on the provisions of the law and the needs of hearing-impaired students, it would be expected that an interpreter would be available to any student needing this support. Unfortunately, major problems exist in the area of educational interpreting: (a) there are not enough interpreters to serve hearing-impaired students in integrated settings, and (b) standards of performance for educational interpreters are not uniform (Steinberg, Tipton & Schein, 1973).

The availability of interpreters has been assessed at the national level. Jordan, Gustason, and Rosen (1979) conducted a study to determine (a) how many hearing-impaired children were enrolled with normal-hearing children for one or more classes at the preschool, elementary, junior high and high school levels, and (b) whether interpreters were provided for these students. They found that of 31,285 children, 11,565 (37%) were integrated to some degree with normal-hearing children. The survey did not specify whether the classes into which children were integrated were academic or non-academic. Nevertheless, the data indicated that interpreters were provided to some degree in only 32% of the school programs; students enrolled in 65% of the programs received no interpreter services, and 3% of the programs did not report whether interpreting services were provided. The data indicated a pressing national need for interpreters.

Obtaining a sufficient number of interpreters would represent only one step toward appropriate educational programming; the interpeter provided must have the skills and personal attributes to meet the needs of hearing-impaired students. Some educational programs have designed their own interpreter evaluation forms to be used in conjunction with interviews when hiring. While these scales include interpreter-related characteristics and skills, specific levels of competency usually cannot be measured. Also, the scales are not consistent across and within programs for hearing-impaired students. Although the Registry of Interpreters for the Deaf (RID), at its national and state levels, established both a Code of Ethics for Interpreting

(Quigley, 1965) and certification requirements evaluated through interpreting performance, the guidelines were not specific to educational interpreting.

Consistent with the conclusions reached by Steinberg, Tipton, and Schein (1973), the supply of interpreters may not be sufficient to respond to the demand created by integration of hearing-impaired students into less restrictive environments, and uniform standards for evaluating the performance of educational interpreters have not been developed. The present study was divided into 2 phases in an attempt to respond to these issues. Phase I was directed toward the analysis of need for interpreter services and the projection of personnel required to respond to the need. Phase II was directed toward the development of a data base around which criteria for the preparation and evaluation of interpreters could be developed.

PHASE I:
SUPPLY VS. DEMAND FOR
EDUCATIONAL INTERPRETERS

In order to determine the level at which interpreter-related needs of hearing-impaired students were being met, 3 sets of data were required: (a) the need for interpreters for hearing-impaired students in integrated educational settings; (b) the supply of interpreters; and (c) the number of interpreters providing services for students in integrated educational settings. Because the state in which the study was conducted was divided into 13 geographic regions for purposes of service delivery, the analysis was based on a sample of individuals selected from each region to control for regional biases.

Subjects

The subjects for the needs assessment were drawn from the 21 supervisors of hearing-impaired programs in the 13 regions. Individuals representing 12 of the 13 regions agreed to participate in the study.

Procedure

An assessment instrument was developed which requested responses to the following questions:

1. How many deaf students were enrolled in the public schools?

2. How many deaf students were integrated for one or more academic subjects?
3. How many deaf students were provided with interpreter assistance?
4. How many interpreters were available in the region?
5. How many interpreters were assisting deaf students in integrated school settings?

The form also requested that the supervisors rate how well the interpreting needs of their region were being met. Where formal data were unavailable, the supervisors were asked to record the best estimate.

Data Analysis

Thirteen forms were returned and the data analyzed. Specifically, percentages were calculated to determine (a) the ratio of integrated deaf students to the total number of deaf students enrolled in public school settings; (b) the ratio of integrated deaf students who had been provided with interpreters to the total number of integrated deaf students; and (c) the ratio of interpreters in public school settings to the number of interpreters in the state.

Results

The analysis of the responses from the 13 regional supervisors indicated that 168 interpreters had been identified within the state. However, the number varied by geographic region, ranging from one to 22 interpreters. Of the number available, 18% were RID certified and 46% provided services in educational settings. From a demand (i.e., need) perspective, the data indicated that a larger number of hearing-impaired students were being taught in integrated settings. Forty-nine percent of the hearing-impaired students within the region were integrated for one or more academic classes. Of the 1,007 students who were integrated into classes with normal-hearing students, more than half (i.e., 56%) were provided with the services of an educational interpreter. These data were consistent with the overall rating by supervisors of the degree to which the need for interpreters was being met (M = 2.77) i.e., slightly less than adequate.

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TABLE 1
Variables Related to the Supply of and Demand for Educational Interpreters

Variable	Quantity
1. Available interpreters	168
2. Interpreters with RID certification	31
3. Interpreters in educational settings	77
4. Deaf students enrolled in public schools	2,058
5. Deaf students integrated for one or more academic subjects	1,007
6. Integrated deaf students provided with interpreter services	566
7. Integrated deaf students provided with RID certified interpreters	61

PHASE II:
SKILLS AND CHARACTERISTICS NEEDED BY INTERPRETERS

In order to project the most important skills and characteristics for educational interpreters, data were obtained from 3 groups: teachers, interpreters, and hearing-impaired students. Specifically, the second phase of the study involved:

1. The selection of broad categories of characteristics and skills inherent to each category.
2. The analysis of the importance of both the categories and specific characteristics and skills to interpreting in educational settings, and
3. The comparison of perceptions held by different populations as to the importance of the characteristics and skills to educational interpreting.

Subjects

Three supervisors selected from representative geographic regions were asked to administer the instrument to teachers and interpreters in secondary programs. At the same time, a teacher at a community college was asked to distribute the same survey to deaf students enrolled at the college. Twenty-four teachers certified in the education of hearing-impaired children, 18 college-aged deaf individuals and 27 interpreters responded to the characteristics and skill assessment.

Procedures

The survey included 38 items representing 4 broad categories of characteristics and skills

related to interpreting: professional, linguistic, personal, and mechanical.

The survey requested that respondents rank each item on a scale of 1 (i.e., unimportant) to 5 (i.e., extremely important) and to propose other interpreter characteristics or skills which they perceived to be important. The questionnaires were mailed to the 13 supervisors who then disseminated them to the teachers and interpreters in their secondary programs. The educator at the community college also distributed and explained the survey to the deaf students attending classes.

Data Analysis

An analysis was conducted to obtain a frequency distribution of the ratings across the populations on each of the 38 survey items, with raw scores and percentages reported across populations for each rating level of an item. From these data, mean rating values were calculated for each item and for each of the 4 categories. The mean values were assessed across samples and for the total population and then ranked from highest to lowest. After ordered lists had been prepared for each group and the groups combined, the 10 highest-rated items were identified. A one-way analysis of variance and a multiple-range test were then conducted to determine if differences existed within and between the groups on the assigned ratings.

Results

The analysis of the skills and characteristics which were perceived to be important for interpreters indicated that a great deal of agreement existed between the groups on some attributes. For example, manual dexterity; hand coordination; general mental abilities; knowledge of lighting, elevation, seating and visual background; knowledge of content area to be interpreted; ability to interpret another's remarks; ability to reverse; and ability to interpret in a specific setting were all rated above average in importance by all groups. However, there were also apparent differences. On the 5-point scale, teachers rated confidentiality the highest (M = 4.75) and lipreading ability the lowest (M = 2.38). Deaf individuals rated RID certification the highest (M = 4.76) and manner of dress the lowest (M = 2.40). Interpreters, in contrast to both groups, rated the clarity of

signs and fingerspelling the highest (M = 4.85) and lipreading ability the lowest (M = 3.07).

Of the 38 characteristics and skills, 20 were valued highly by all groups. Three skills or characteristics, reception of signs and fingerspelling, knowledge and/or assessment of deaf students' language levels, and punctuality were rated among the most valued items. Fluency of signs and fingerspelling was rated among the most important skills by all groups except teachers. Three characteristics and skills, confidentiality, clarity of signs and fingerspelling, and attitudes toward deafness, were rated most valuable by all groups except deaf individuals, whereas knowledge of lighting, elevation, seating and visual background, RID certification, ability to re-

verse, and membership in professional organizations were rated most valuable only by deaf individuals.

Observed differences in the mean ratings were supported by the analysis of variance which indicated that significant differences existed between and within groups on ratings assign to 18 of the 38 items on the survey and that most of the major discrepancies occurred betwen the ratings assigned by deaf individuals and those of the interpreters and/or the teachers (Table 2). For example, deaf individuals rated RID certification significantly higher ($p < .001$), and characteristics such as confidentiality ($p < .0023$) and impartiality ($p < .0001$) significantly lower than did teachers and interpreters.

TABLE 2
Rated Value of Characteristics and Skills Related to Educational Interpreting

Characteristic or Skill	Teachers	Deaf Students	Interpreters	p
	Mean Ratings			
RID certification	2.63	4.50	3.70	.0001
Manner of dress	2.96	2.00	3.96	.0001
Attitudes toward deafness	4.50	3.28	4.67	.0001
Knowledge of regular classroom procedures	3.92	2.33	3.81	.0001
Adaptation to different levels of language proficiency	4.00	3.06	3.81	.0011
Interpreter-client rapport	4.21	2.89	4.19	.0035
Confidentiality	4.75	3.61	4.81	.0023
Impartiality	4.17	2.56	4.56	.0001
Lipreading ability	2.38	3.39	3.07	.0097
Membership in professional organizations	2.42	3.78	3.41	.0033
College coursework in interpreting	2.54	3.67	3.63	.0057
Contact with deaf individuals outside of the interpreting setting	3.17	2.61	3.93	.0015
Clarity of signs and fingerspelling	4.50	4.06	4.85	.0171
Knowledge of regional variations in sign language	3.21	2.72	3.70	.0145
Assessment of deaf student's preferred mode of communication	3.58	2.94	4.19	.0026
Ability to interpret/translate through deaf student's preferred mode of communication	3.75	3.17	4.30	.0081
Interpreting experience	3.50	3.11	4.00	.0260
Familiarity with professional literature about interpreting	2.75	3.11	3.67	.0151

DISCUSSION

If hearing-impaired individuals are to be integrated with their normal-hearing peers, many will need the support of an educational interpreter. Not only must interpreters be available, but they must also be able to provide a quality of service that will be acceptable to both the teacher and the ultimate consumer, the hearing-impaired student.

A national survey conducted by Gentile in 1973 indicated that 10.6% of hearing impaired

students were participating in classes with hearing students. Six years later, Jordan, Gustason, and Rosen (1979) reported that 37% of the hearing-impaired students enrolled in public and residential schools attended classes with their normal-hearing peers. Comparison of the two national surveys reflected a substantial increase in the integration of hearing-impaired students. Unless the state considered in the present study is unique, the integration of hearing-impaired students continues to increase.

Similarly, the provision of educational interpreters has also increased. While Gentile (1973) reported no interpreter services provided for integrated hearing-impaired students, Jordan, Gustason, and Rosen (1979) reported that 32% of integrated hearing-impaired students were provided with interpreter services. The discrepancies may be due to the types of classes into which hearing-impaired students in the early seventies were integrated (i.e., primarily nonacademic) or to the impetus for complete service provision contained in Public Law 94-142. It is significant that interpreter services were being provided to more than half the hearing-impaired students in the present study.

It might be assumed that a ceiling could be placed on the need for interpreter services. However, the increase in the provision of such services over time and the rating of "less than adequate" ascribed by the supervisors in the present study suggest that the need has not been met. In addition, narrative comments by one supervisor suggested that while adequate services were available they may have been provided at the expense of other significant functions. Many of the individuals providing interpreter services were also teachers of hearing-impaired children whose time might have been better spent in teaching or tutoring.

Public law 94-142 requires that hearing-impaired students be educated in environments that are least restrictive to their intellectual, emotional and social growth. If a hearing-impaired child can function in a regular classroom with the aid of an interpreter, it is required that an interpreter be provided. Unfortunately, the criteria for determining the need for an interpreter have not been established and the number of interpreters available to educational programs appears to be inadequate. Increasing the number of interpreters could be approached thorugh several strategies. Interpreter salaries might be increased to encourage individuals to assume this role as a primary occupation. Or, more cost effective, hearing peers, parents or others could be taught to interpret through courses or workshops in sign language, fingerspelling and interpreting. Further, administrators, teachers, interpreters and deaf individuals could collaborate in the development of public awareness of deafness and the implications for education. Increased public awareness, in turn, could cultivate an interest in interpreting as well as promote additional funding for interpreter salaries or training programs. Further, interpreter services could be provided on a shared basis so that an individual interpreting in a school system could assume other responsibilities when services as an interpreter were not needed. Or, interpreters could be used on an itinerant basis travelling to more than one school in the district. Finally, more workshops in educational interpreting could encourage the participation of individuals who are already interpeting in other settings as well as individuals without previous interpreting experiences and on a larger level, training programs could be instituted at more colleges and universities.

The need for educational interpreters requires further study. While the present research determined the number of hearing-impaired students who were integrated for one or more academic subjects and the number of those students who received interpreter services, other questions must be considered: (a) How many of the students who are integrated need interpreter services in order to function in the regular classroom setting? (b) What criteria could be used to determine the need for interpreter services? (c) How many hearing-impaired students are present in integrated settings at a given time? and (d) How many and what type of integrated settings are being arranged?

The extent to which interpreter supply meets interpreter need also requires further investigation. The present research ascertained the number of interpreters providing services in school settings. However, to more accurately assess the adequacy of the supply of interpreters in public school settings, other questions should be explored: (a) What other responsibilities does the interpeter fulfill for the school district or cooperative or region? (b) For how many students does the interpreter provide services? (c) In how many regular classroom settings where an interpreter is needed are services provided? and (d) For how many hours or class periods does the interpreter provide services each day?

With the increased number of educational interpreters it is critical that standards be developed to assure the quality of the services. As observed by Levine (1979), "The strength of every profession rests upon the qualifications

of its practitioners" (p.2). The present study indicated that agreement existed between both consumers and practitioners on many skills and characteristics which should be exhibited by educational interpreters. Equally important, the data indicated that the opinion held by hearing-impaired individuals differed from those held by persons providing services. It is important that these opinions be respected. For example, although many individuals without RID certification interpret effectively in classroom settings, it is logical that a deaf individual might expect proof of excellence, just as most people would expect degrees indicating that their physician, teacher or lawyer had completed a program successfully. RID certification is not specific to educational interpreting, but it does indicate excellence in receptive and expressive signing and fingerspelling, as well as

the ability to reverse. Similarly, while deaf individuals might view confidentiality and impartiality to be extremnely important for medical or legal interpreters, they may not see these characteristics as relevant in educational contexts.

The fact that teachers, hearing-impaired students, and interpreters differed on many attributes perceived to be important suggests that standards for educational interpreters should be developed based on the collective input of all three groups. What is essential to the performance of one group may be insignificant to another. Given a set of agreed-upon skills and characteristics, criterion levels for mastery could be established and training programs developed to assure that deaf persons not only receive interpreter services, but that the quality of those services meets their needs.

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