Schooling

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Three issues important to the schooling of deaf and hard of hearing individuals are (a) the type of setting in which to place the students for their education, (b) the method of communication and the language for instruction, and (c) socialization for eventual membership in deaf or "hearing" cultures. As used here, students who are deaf or hard of hearing are those with sufficient hearing loss to participate in special education services designed specifically for this group.

School Placement

There are three important questions regarding school placement: First, is a local public school or residential education more desirable for academic development of the student? Within this question, a second question that pertains to public schools is whether it is desirable to use an inclusive approach in which the student is in the regular classroom with hearing peers for virtually all of the time. The third question is whether a public school or a residential school is more desirable for social development.

Characteristics of residential and mainstream programs. The two predominant educational settings, residential schools and mainstream programs in local schools, can be distnguished on a number of features. Although there is much diversity in residential schools for deaf children, the prototypical school has 150-200 students. High school students tend to reside at the school, and among these students there may be a number who have transferred from a mainstream program (Moores, 1996). In recent years, simultaneous communication has been the predominant method for communication at both elementary and high school levels (Moores, 1996). There is generally an excellent range of special services, such as audiologists, counselors, and psychologists. There are a variety of academic and vocational courses, and a wide range of athletic and social programs.

Students who are mainstreamed attend classes in regular schools that enroll predominantly hearing students. There are really two major educational patterns. The first is a regional program which includes resource rooms that are part of a local public school for hearing students. Deaf and hard of hearing students receive special instruction in self-contained classes or resource rooms and typically attend selected classes with hearing students. The size of these programs varies considerably from more than 100 students to just a few (Moores, 1996). The second type of program is one where all students are enrolled in their local neighborhood school. The students generally are placed in classes with hearing students, although they are visited by an itinerant teacher to provide special instruction. There is much variation in the extent students receive such instruction.

Demographic information related to school placement. There are different numbers of students in residential and mainstream settings for deaf and hard of hearing students, and the students in these different settings have different communication characteristics and academic skills. Data from the Annual Survey of Deaf and Hard of Hearing Children and Youth show that approximately 70% of the students are educated in local schools (i.e. mainstreamed), approximately 22 percent are educated in residential schools, and 8% are educated in local, separate day schools (Schilderoth and Hotto, 1994). There has been a steady trend toward educating more students in local schools over the past twenty years (Schildroth & Hotto, 1994; Schildroth & Hotto, 1996). Students in local schools or mainstream settings tend to have less severe hearing losses than do those in residential schools (Schildroth & Hotto, 1994).

Academic benefits. With regard to the question of which setting provides the more desirable academic education, residential and mainstream programs have different combinations of strengths and weaknesses, and these differences are fueling considerable debate. Students in mainstream settings tend to demonstrate higher academic achievement than students in residential settings (Allen, 1986). However, demographic factors related to placement are also highly related to academic achievement and only small amounts of variance in standardized scores have been found to be due to placement factors alone (Kluwin, 1993; Stinson & Antia, in press).

Although residential schools vary in their academic focus relative to mainstream programs in suburban areas, there is an emphasis on vocational preparation, including courses such as printing and computer data entry (Lane et al., 1996). Thus, most students who graduate from these programs tend enter the workforce, perhaps after brief postsecondary vocational training. Limited numbers of graduates enroll in college.

For mainstream programs, the opportunity for deaf and hard of hearing students to take classes with hearing peers permits students who have the maturation and skill to take advantage of more varied course offerings (Lane et al, 1996). Depending on the distance from home to school, they may have a long commute on the school bus. Thus, students in mainstream programs are exposed to essentially the same culture as their hearing peers at school and at home (Foster & Emerton, 1995). Moreover, students in these local programs live with their families.

The extent the student is placed in a regular classroom as opposed to a special classroom (whether in a residential or a mainstream program) is an important consideration because the instructional environment in the two settings is significantly different. These differences probably hold regardless of whether the special class is in a school for the deaf or in a local school. In a study that compared effective instruction of deaf students in self contained classes at a public high school with that in regular classes, Kluwin (1992) noted that the regular classroom teachers were responsible for a large number of students (30-40) and did not give any of these students much individual attention. Teachers spent much of the time lecturing, and they adapted strategies to keep the students "on their toes" throughout the class.

In contrast, teachers in the special classes gave individualized instruction to the different students, gave additional emotional support to these students, and used class time for individual seat work. Interestingly, effective instruction in both mainstream and special classes was characterized by assignment of relatively large amounts of homework. Thus, the instructional pace is different for regular and special classes and the learning characteristics of the students also differ. However, deaf and hard of hearing students in regular classes start with a higher level of achievement, and with the faster pace of instruction in regular classes, tend to progress more rapidly (Zwiebel & Allen, 1988; Kluwin & Stinson, 1993).

Inclusion vs. Mainstreaming

A controversial issue in the education of students in local public schools is the extent to which an inclusive approach should be used as opposed the a mainstream approach. Inclusion and mainstreaming are educational practices, as opposed to integration (academic and social) which is an outcome of these practices. When examining these practices from the perspective of placement, the key issue is the physical setting in which children receive their education. From this perspective inclusion implies that children who are deaf or hard of hearing receive most, or all, of their education in the regular classroom. Mainstreaming implies that these students receive their education in the regular public school, but not necessarily within the regular classroom. Thus, children can be mainstreamed for math or art or recess, but may attend a resource room or a self-contained classroom for the remainder of the school day (Stinson & Antia, in press.)

Philosophically, the difference between mainstreaming and inclusion is that mainstreaming implies that the child must adapt to the regular classroom whereas inclusion implies that the regular classroom will adapt to the child. To mainstream a child successfully it is necessary to evaluate the child's readiness to function within the classroom. In a mainstream setting the classroom teacher is the gate-keeper, turning away children who are unable to function within the existing classroom structure and curriculum. In contrast, in an inclusive setting, the classroom practices are expected to change to accommodate individual children. Another philosophical division between the two concepts is classroom membership. Mainstreaming implies that the deaf and hard of hearing students are visitors in the regular classroom, whereas inclusion implies that these children are members of the regular classroom.

Personal and Developmental Issues

A third issue with regard to school placement is whether residential or public schools best foster personal and social development. Although the residential and mainstream school environment have common goals with respect to the promotion of personal and social development (such as positive self-esteem, motivation for school and work), there appear to be differences in emphases.

An argument in favor of residential schools is that they contain a critical mass of peers and adults with whom students can interact easily and from whom they derive a variety of positive social experiences that benefit the children's social development (Foster & Emerton, 1995). Individuals who have attended residential school have commented on how one of their special benefits is the development of close, long lasting friendships (Foster, 1991). There are also a wide range of athletic and social programs in which all the participants are deaf resulting in more leadership opportunities for deaf students than are generally available in the mainstream setting.

In support of students in mainstream programs, one may argue that the experience provides deaf students with the best opportunity to develop the skills and personal resources to function effectively in a hearing world. Concern has been expressed, however, that a frequent consequence of mainstreaming is social isolation, rather than integration, and this kind of social experience is not conducive to the deaf child's social development. Students may experience feelings of loneliness because they cannot easily participate in social activities with peers due to communication difficulties. Research on students educated in public schools suggests that both deaf and hearing students experience an absence of close friendships (Antia, Kreimeyer & Eldredge, 1994; Stinson & Antia, in press; Stinson, Whitmire & Kluwin, 1996; Tuingstedt, 1993). Studies indicate that degree of hearing loss is not a key factor in determining the extent of social relationships. Research has also shown that deaf adolescents have consistently felt more emotionally secure and more accepted in relationships with deaf peers than in relationships with hearing peers. This is generally true regardless of whether the student is in a residential (a separate day) school or in a public school program, either large or small (Stinson & Whitmore, 1991; Stinson, Whitmore & Kluwin, 1996).

Centralized mainstream programs attended by a number of deaf students do provide opportunities for interaction with other deaf peers. Deaf students themselves have commented on how they benefitted from this type of program, in which they gained experience in relating to hearing students but at the same time maintaining closer, more comfortable relations with deaf peers. When relationships with hearing peers got difficult there were always the deaf friends to provide support (Foster, 1991; Charlson, Strong & Gold, 1992 ; Reich, Hambleton & Houldin, 1977). As a result, many educators have expressed concern regarding the placement of deaf students in local schools without deaf peers.

Communication

Another important issue concerns the form of communication that is most desirable for fostering academic and social development. At one end of the communication continuum are those who advocate complete reliance on spoken communication. At the other end are those who argue that American Sign Language is the natural language of deaf people and that English should be learned as a second language for purposes of reading and writing only. The communication issue is inextricably linked to the student's educational setting and to individual characteristics, especially to the degree of hearing loss and its time of onset. For public school settings, there is currently much debate on whether the growing using of educational interpreters to support deaf students in regular classes is appropriate.

There is a difference between students' communication experiences in mainstream settings and in special classes, and there also may be differences between communication in special classes in public schools and residential ones. In residential schools there is greater emphasis on sign communication than in mainstream programs. The sign communication occurs in forms with and without the simultaneous use of speech. Because residential school teachers tend to be fluent signers, and because communication with peers is generally in sign, the residential setting offers the best access to communication for many students who are profoundly deaf and who rely on a visual form of communication (Lane et al, 1996). While the predominant language continues to be simultaneous communication—in which the teacher speaks and signs the words in English word order—there has recently been considerable experimentation with using American Sign Language for instruction, and some schools have bilingual programs in which the philosophy is to develop competence in American Sign Language first and then use this competence as the base upon which to build competence in English (Strong, 1995).

Sixty percent of students who are educated in classes with hearing students use spoken English for communication. These students rely on lipreading, aided by residual hearing, to follow the classroom discourse. Many students use Frequency Modulated (FM) systems in which the teacher wears a wireless microphone that sends a direct signal to the child's hearing aid (Johnson, in press). Support services in mainstream classes, such as interpreters, notetakers, and speech to print systems, increase communication access and aid learning of students. Interpreters sign and mouth the words as they are spoken by the teacher and other students. Notes are taken for the deaf students by aides or peers, thus allowing them to focus more completely on the teacher and/or interpreter. Speech-to-print systems are growing in use, but are used considerably less often than interpreters (Bervinchak & Bolesky, in press; Stinson & Stuckless, in press). With this system the student sees a real-time display of the classroom dialogue in printed English. The text is produced by an in-class "captionist." The student also benefits from being able to review the text after class by reading the text file on a computer screen or by reviewing a paper printout.

Provision of interpreters to facilitate communication in the classroom is now in wide use. It appears that secondary level mainstream students use educational interpreters in over half their classes (Rittenhouse, Rhan, & Moreau, 1989). The skills of the interpreters vary considerably and the lack of standards in public schools to insure quality interpreting is a serious problem (Patrie, 1993; Stedt, 1992). While an interpreter can significantly increase communication access, deaf students are still less likely than their hearing classmates to be exposed to all relevant material in courses and to encode and comprehend the material at satisfactory levels (Caccamise & Blasdell, 1977; Jacobs, 1977; Osguthorpe, Long, & Ellsworth, 1980).

Thus, even when support services are good, students may have difficulties communicating, participating, and learning in the regular classroom (Stinson & Antia, in press.) Interviews with students and observations in classrooms indicate that barriers to classroom participation include

the rapid rate of discussion, rapid turn taking, rapid change of topics, the high number of speakers involved in the discussion, and more than one student talking at a time (Saur, Layne, Hurley & Option, 1986; Stinson, Liu, Saur, & Long, 1996). Although students using oral communication had an easier time joining class discussion (Stinson et al., 1996) they may continue to have difficulty compared to their hearing peers.

Culture and Self-identity

The final issue to be addressd is whether it is preferable for schools to socialize students to comfortably fit into the deaf community or socialize them to function competently in the predominantly hearing society. The previously considered issues of school placement and communication clearly impact on the cultural and identity issues. Traditionally residential schools have effectively socialized students to become comfortable with deaf culture. While public schools provide extensive practice in interacting with hearing individuals, much of the experience may be frustrating. Assimilation of deaf students from mainstream schools into the predominantly hearing society may be limited. Moreover, should these individuals later turn toward the deaf community they may proceed awkwardly and expereince rejection from culturally deaf peers.

The concept that there is a culture within the deaf community has emerged more strongly in recent years, as deaf individuals recognize that they share special common abilities and ways of relating to others who are deaf (Padden & Humphries, 1980). These common abilities have to do with language (ASL) or ways of communicating and values that may not be the same as those commonly held by hearing persons (Leigh & Stinson, 1990). The residential school is the setting in which the deaf child has been traditionally socialized to acquire these values and to identify with the deaf community. Students come into contact with many deaf role models, including deaf staff, older deaf students, and deaf alumni. These experiences contribute significantly to the acquisition of deaf culture, especially for deaf children of hearing parents.

The environment of the neighborhood public school is unlikely to support an interest in deaf culture and may complicate development of the students' self-identity (Glickman, 1986). Writing about his counseling experiences with deaf children and youth, Glickman suggests that the establishment of identity with deaf and hearing social groups is often a complex task for deaf adolescents, especially for those who have been mainstreamed. On the one hand, contact in the family, neighborhood, and school is predominantly with hearing individuals. On the other, it is generally easier for deaf individuals to communicate and establish friendships with each other. Orally trained students from mainstream programs with little experience with deaf culture may undergo internal conflict as they discover sign language and the deaf community. The may struggle in their efforts to clarify their affiliation with deaf and hearing cultures (Glickman, 1986).

Conclusion

In conclusion, issues regarding appropriate schooling of deaf and hard of hearing youth are complicated by variations of setting, communication, and culture. Mainstream programs provide varied course offerings that can chalenge students. Residential and other centralizaed programs offer opportunities for social support that are important for personal development and that may not be abailable when the deaf students is mainstreamed into a local school. Thus, in the education of students who are deaf or hard of hearing, questions remain regarding what are the preferable educational experiences for fostering the skills and personal resources for successful integration into society.

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