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ABSTRACT

This collection of papers examines the controversy about the full inclusion movement for students with deafness. The collection begins with an introduction by Oscar P. Cohen which traces the history of education of deaf students, examines legal provisions used to justify full inclusion, and urges continuation of the continuum of special services. Other papers include: "Deaf Students and Full Inclusion: Who Wants To Be Excluded?" (Arthur N. Schildroth and Sue A. Hotto), which examines the demographics of deafness and educational placement; "The Potential Impact on Deaf Students of the Full Inclusion Movement" (Michael Stinson and Harry Lang), which considers the philosophy of inclusion and its social consequences on deaf children; "The Price of Dreams: Who Will Pay It?" (Claire Ramsey), which analyzes the relationship between full inclusion and American ideals and examines deaf student-hearing student interaction in mainstream settings; "An Interpreted Education: Inclusion or Exclusion?" (Elizabeth A. Winston), which addresses whether educational interpreting provides access or creates new unanticipated barriers; "Replacing Myths about Deafness" (Oscar P. Cohen), which dismantles certain myths that are believed by inclusion advocates; "Mainstreaming and Inclusion: A Deaf Perspective" (Rachel Stone), which discusses the importance of deaf peers, deaf role models, and deaf culture in deaf children's formative years; "Psychosocial Implications of Full Inclusion for Deaf Children and Adolescents" (Irene Leigh), which focuses on the dangers full inclusion would impose on deaf children's psychosocial development; "National Association of the Deaf Statement on Full Inclusion"; and "Statement on Full Inclusion" (I. King Jordan). (Most papers contain references.) (JDD)

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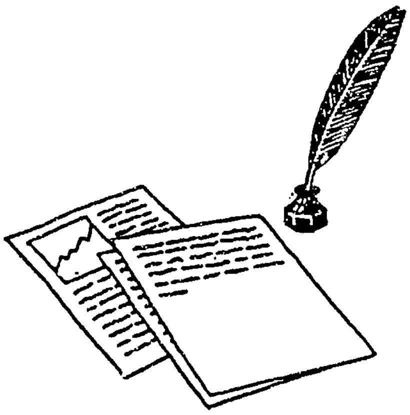
Implications and Complications for Deaf Students of the Full Inclusion Movement

A Joint Publication by the
Conference of Educational Administrators Serving the Deaf
and the Gallaudet Research Institute

Edited by
Robert Clover Johnson and Oscar P. Cohen



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Please note: Three of the papers in this document—those by Claire Ramsey, Elizabeth Winston, and Rachel Stone—were based on papers originally presented at Gallaudet University in 1988 at a meeting called "Deaf Children in Integrated Educational Settings." The meeting was part of a series of joint seminars and exchange visits between representatives of the Spanish Ministry of Education and American presenters invited to participate by the Gallaudet Research Institute's Culture and Communication Studies Program. The seminars and exchanges received substantial funding from a one-year planning grant awarded to Alvaro Marchesi and Carol Erting from the Joint Committee for North American-Spanish Educational and Cultural Cooperation. Individuals interested in obtaining English translations of the Spanish papers presented during the seminars should contact Robert Clover Johnson at the address given above.

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Introduction

Oscar P. Cohen

The inclusion controversy is not new. However, it has taken on new dimensions. In fact, the oral-manual controversy, sometimes known as a "holy war" (Benderly, 1980), that has existed in the field of the education of the deaf from the mid-19th century to the 1970s, pales beside the threat of the implications and ramifications posed by full inclusion. Indeed, deaf children, and disabled children in general, are faced with one of their greatest threats ever.

Traditionally, decisions about where and how to teach disabled children have been influenced by population changes and their effects on the general social milieu of the country, as well as changes in educational philosophies and theories (Moores, 1992). Since the 19th century, assimilation (the "melting pot theory"), has been a primary goal of policymakers regarding newly arrived immigrants. Assimilation meant doing away with "otherness"—differences in culture, language, behavior, and general values--in order to promote a uniform set of values, norms, and mores known as "American" (Erting, 1993; Hakuta, 1986).

One of the earliest calls for the abolition of separate schools and classes for deaf children and for their mainstreaming came from Alexander Graham Bell, whose opposition to residential schools was based primarily on social and not educational grounds. Bell feared intermarriage among deaf people and the enlargement of a deaf community in which socialization would "propagate" the "deaf species."[1] His goal was to isolate deaf people, as much as possible, from each other (Moores, 1992). Although he selectively supported the Clark School for the Deaf and separate classes and day programs in which an oral philosophy was strictly adhered to, he testified before the Senate in 1895 against the establishment of a teacher training program at Gallaudet College, because it supported the concept of separate classes and because it would perpetuate the training of deaf teachers.

European policy during that period was consistent with Bell's thinking. There were national movements to integrate deaf children into public schools in England, Germany, France, and Prussia. The thought was that by placing deaf children with hearing children in school, speech development, as well as social and academic learning, would occur automatically as the deaf children absorbed the language and behaviors of the larger community. They were placed into the hearing environment and expected to adapt, instead of being provided with an environment designed to facilitate their development. It was a matter of sink or swim, and most deaf children sank (Moores, 1992).

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[1] Bell's fears concerning intermarriage among deaf people, of course, were not groundless. A high proportion of deaf people who marry do indeed marry a deaf partner, but a study by Edward Allen Fay (1898), which was funded by Bell, determined that roughly 90% of the children resulting from these unions were hearing, a finding that hardly suggests these marriages were creating a "deaf species."

This policy of assimilation included the creation of programs for the handicapped in the early and middle 19th century that reflected an optimistic view of the feasibility of educating, training, and preparing handicapped individuals to function in society at large. However, as industrialization increased in the United States and western Europe, economic changes led to an emphasis in education on the universal training of workers to form components of a complex mechanical system (Ibid.). A technical society required the sorting and classifying of citizens, which, in turn, required the development of tests to identify and segregate children thought to have limited intellectual ability (Kanner, 1967). Ambivalence and contradictions emerged between the goal of eradicating otherness and differences by treating everyone "equally" on the one hand, and the belief that the nation was best served by classifying and separating people according to welfare-of-society criteria on the other. Two other factors influenced the sorting and separating of children: increased education costs, and the growing feeling that many handicapped persons, especially the mentally retarded, constituted an economic threat to society. This resulted in residential institutions becoming more custodial and less educational, and making requirements for entrance to the United States stricter: disabilities, including deafness, were causes for rejection (Moores, 1992).

Influenced by the sorting and separating policies of the late 19th century in this country and the failure of the European and American policies of integrating deaf children with non-deaf children, the system of school placements in the United States at the end of the 19th century continued with only minor modification for the next 70 years. It consisted of separate residential (public and private) and day (public) schools for the deaf, with most deaf children educated orally. In many of these programs the goal was to make deaf children as much like hearing children as possible (Ibid.). The original goal of assimilation-only changed to one that would transform disabled children, including deaf children, for all intents and purposes, into effective lower-skilled workers. The separate school system served the country's economic needs, while the strong oral philosophy fostered the belief in assimilation.

An interesting demographic phenomenon then occurred. The post-war school-age population rose significantly throughout the country through the 1950s, and then began to decline in the 1960s. While this did not have an appreciable impact on the way deaf children were educated during the 1940s and 50s, a significant change occurred in the mid- to late-1960s. As the general school-age population decreased, there was an increase in the number of deaf children due to the rubella epidemic of 1964-65. The existing residential schools did not have the resources to handle the influx of preschool students. Because the children were seen as a one-time-only educational problem, there was a reluctance to invest in building construction that would be underused after they left. Simultaneously, the general birth decline meant that public schools (recently built to accommodate the post-war boom) had empty classrooms for the first time. Therefore, several factors came together to suggest to public officials that space in regular schools be used for deaf children: the presence of large numbers of children deafened by rubella, space shortages at schools for the deaf, and the presence of unused classroom space in public schools (Moores, 1992).

Is There a Legal Mandate for Inclusion?

With the passage of the "Education for All Handicapped Children Act" in 1975 (PL 94-142), now known as the "Individuals with Disabilities Education Act" (IDEA), demographic shifts, and the emerging influence of Brown v. Board of Education on the placement of disabled children (that is, "separate cannot be equal"), the course toward inclusion was sparked. The basic concept of

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IDEA was that all children are entitled to a "free appropriate public education" (FAPE). A significant component of IDEA was that children with disabilities be educated in the "least restrictive environment," and to the "maximum extent appropriate" with non-disabled children. The law's requirements also provided for a "continuum of alternative placements," including instruction in regular classes, special schools, home instruction, and instruction in hospitals and institutions. The law encouraged social interaction between students with disabilities and their non-disabled, age-appropriate peers and the provision of an appropriate education. However, neither the law nor the courts have defined LRE or "to the maximum extent appropriate" in operational terms, leaving those tasks to professionals and to due process protections. While the law clearly states that placement decisions be made on a case-by-case basis through the individual education plan (IEP), full inclusion advocates talk about "all" disabled children being placed in one system. They use three main arguments to support their case:

- all children learn best in the regular education classroom;
- the goal of social equity, mixing disabled and non-disabled children, is of greater importance than how much children learn;
- and pull-out programs are illegal because they violate childrens' civil rights by segregating them from their non-disabled peers (Smelter, Rasch, & Yudewitz, 1994).

Because they would have to abandon the value of small-group over large-group instruction, which flies in the face of research on individualized instruction, advocates of full inclusion are unable to justify their position on the first argument. The second places social aspects of learning ahead of academics, which except for those advocating for mentally retarded children, is unacceptable to advocates of other disability groups, certainly the deaf. The third promotes inclusion on constitutional grounds, as a civil right, making the inclusion stance political rather than educational.

The political argument in favor of inclusion is based on the assumption that the civil rights of students, as outlined in Brown v. Board of Education, striking down "separate but equal" can also be construed as applying to special education. However, the differences between the artificial separation of children because of race and the non-artificial separation of children because they have been shown to learn better in different settings are obvious. The first kind of separation has no educational rationale, whereas the second has improving the child's learning as its primary justification. Carrying this third argument to its logical conclusion, historically Black Colleges, women's schools, and programs for the gifted would disappear (Smelter, et al., 1994).

Advocates of full inclusion have prevailed upon the courts to favor least restrictive environment over appropriateness of education. The Individuals with Disabilities Education Act makes it quite clear, however, that its least restrictive environment clause is secondary in importance to appropriateness of education:

- to the maximum extent *appropriate* education with non-handicapped is preferred; and
- removal from regular education should be exceptional, *occurring only where education in the regular education environment 'cannot be achieved satisfactorily'* (U.S. Code, Vol. 20, No. 1412, Section 5, Subsection B).

Before 1989, courts were more likely to rule that students should not be mainstreamed solely for the sake of mainstreaming, but only when there was a benefit to be derived. Most held LRE to be secondary to the provision of appropriate instructional programs, though some courts held that a degree of academic quality could be sacrificed for the sake of socialization (Osborne, Jr. & Dimatta, 1994). Until recently, case law supported appropriateness of education over LRE. Carter v. Florence County School District Four, 950 F.2nd 156 (4th Circuit, 1991) ruled that the school district must pay for the private school placement of a learning disabled child stating that under the IDEA, mainstreaming is a policy to be pursued so long as it is consistent with the Act's primary goal of providing disabled students with an appropriate education. Where necessary for educational reasons, mainstreaming assumes a subordinate role in formulating an educational program. To speak of education in the least restrictive environment without the qualifier "where appropriate" is both misleading and inaccurate. Nevertheless, there has been a movement toward a legal mandate for inclusion. This has been precipitated by a series of recent court cases, most of which were decided in favor of parents of mentally retarded children seeking inclusion of their children in regular classes.

The Oberti (1993) and Holland (1994) cases are frequently *mis-cited* from the perspective that IDEA consists only of an LRE requirement. Both cases apply a standard analysis of IDEA to student-specific situations only and do not overturn existing law (ACTION, 1994). These and other recent cases show the courts deviating from previous case law in favor of inclusive programming for students with severe disabilities. The courts seem to be growing impatient over their perception of the general failure to fully implement the least restrictive environment mandate of IDEA (Osborne & Dimatta, 1994). They are shifting from relying on the testimony of school officials to determine what constitutes the least restrictive environment to judicially ordering mainstreaming. In the Oberti case, the Office of Special Education and Rehabilitative Services (OSERS) of the United States Department of Education, for the first time, took a position on behalf of a litigant, the Oberti family. The assistant secretary of education, Judith Heumann, actually stated publicly that separate schools for disabled children are immoral. Not curiously, advocates for full inclusion generally do not cite recent Supreme Court or federal circuit court cases that support the continuum of alternative placements such as Carter v. Florence County and St. Louis Developmental Disabilities Treatment Center Parents' Association v. Mallory (8th Circuit, 1985), where the court rejected a request to close down special schools on the grounds that by doing so it would violate IDEA by denying access to the full continuum of alternative placements (ACTION).

By fall 1993, almost every state was implementing inclusion at some level. According to the American Federation of Teachers, eleven states were moving forward aggressively, although full inclusion is law in only two of the 11 federal circuit courts (Murphy, 1994). In the Rowley case (1982), the Supreme Court ruled that only a minimal level of education was necessary to meet the conditions of the law and that the Hendrick Hudson School District was not obligated to provide for Amy Rowley's (a deaf child) optimal education. (Incidentally, this ruling contradicts assumptions of full inclusion advocates who claim that the concept of full inclusion provides whatever is necessary to maximize each child's education, regardless of costs, and admit that costs will likely escalate as a result of full inclusion.)

There seems little doubt that many school districts have excluded some children with disabilities from attending regular schools and have not carried out LRE provisions according to the spirit of the law. However, according to the Commission on Education of the Deaf, the converse is also true, that deaf children are being deprived of appropriate special schools, or other alternative program placements, due to arbitrary interpretations and judgments by school districts.

Full inclusion advocates draw attention to the connection between the Brown decision and the Americans with Disabilities Act (ADA), in terms of safeguarding civil rights, stating that:

> We need to embrace today the same struggles and sacrifices that were necessary after Brown to overcome the massive resistance to ending separate schooling and extending equal protection to all citizens in all aspects of our national life (Laski, p.4).

But this plays both ways. To eliminate the continuum for deaf children and others whose needs require such placement, on the grounds that it may be helpful to severely intellectually disabled children, simply replaces the oppression, discrimination, and hegemony of one group for that of another. Those who would mandate inclusion for *all* children with disabilities in order to resolve a problem for *some* are short sighted. Denying the rights of some to attend school in alternative settings in order to safeguard the rights of others who wish to attend regular schools is extremist. We must ask ourselves the real appeal of mandatory inclusion. Does it serve deaf people, or is it simply a way to further the great American myth that we're all created equal? To treat all children as though they are the same is not democratic; it is unjust (Cohen, L., 1994). Advocates of full inclusion do not have license to define America's values. Definitions of "motherhood" and "apple pie" are not universal. There are many kinds of "mothers," many recipes for "apple pie."

Disabled children's needs are not monolithic. Deaf children represent a diverse group of learners. Their different individual needs suggest that they will be best served by a variety of settings, including the opportunity to attend inclusive schools *when appropriate*. However, the full-inclusion, one-size-fits-all approach, even with its promises of support services, is naive at best, and irreparably harmful at worst. Complex problems do not have simple solutions, nor can an emotionally-based appeal to old myths substitute for an informed appreciation of the culture and nature of deafness. There are many issues that must be addressed before social policy affecting the education and development of deaf children is determined, lest irrevocable harm be done to many children (Cohen, O., 1994).

The papers that follow elaborate and clarify these points. Arthur Schildroth, writing on the demographics of deafness, raises unaddressed and unanswered questions regarding educational placement of deaf children in inclusionary settings. Michael Stinson's and Harry Lang's paper discusses, from the perspective of two deaf researchers, the philosophy of inclusion and its social consequences on deaf children. Claire Ramsey's paper provides an analysis of the relationship between the full inclusion philosophy and many cherished American ideals, along with a realistic look at deaf student-hearing student interaction in mainstream settings. Elizabeth Winston's paper on educational interpreting—whether it provides access or creates new unanticipated barriers—dispels what is probably the most misguided idea of advocates of inclusion about placing deaf children in regular classes. Oscar Cohen seeks to dismantle certain myths about deafness that are believed by many advocates of inclusion. Rachel Stone's paper discusses from a deaf educator's perspective the importance of deaf peers, deaf role models, and deaf culture in deaf children's formative years and the threat inclusion poses for those elements. Irene Leigh's paper, written from the perspective of a deaf psychologist, focuses on the dangers full inclusion would impose on many deaf children's psychosocial development. The remaining papers articulate deaf consumers' perspective on inclusion in the form of a position paper by the National Association of the Deaf and a statement by I. King Jordan, the president of Gallaudet University, the only liberal arts university in the world for deaf persons.

None of us advocates the elimination of inclusion as an option. That would be as extremist and foolish as advocating the abolition of alternatives to the regular education setting. Full inclusion leaders should fix their attention on the children they know best and permit the parents and professional advocates of children who are deaf, or have other special needs, to speak on behalf of the children they know best. If they do not, their continued provocative rhetoric will continue to polarize general and special education (Fuchs & Fuchs, 1994). To that end, we hope that this publication helps to inform policy makers, parents, general and special educators, legislators and the courts.

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Deaf Students and Full Inclusion: Who Wants to be Excluded?[1]

Arthur N. Schildroth
Sue A. Hotto

"It is not necessary for eagles to become crows." — Sitting Bull, 1876

For over 150 years a major educational placement option for deaf children in the United States has been the special school, either residential or day, sometimes in conjunction with services for children with other disabilities (e.g., blindness). The low-incidence nature of early hearing impairment, the often large geographical distances between families needing services for their deaf children, the scarcity of trained staff, and the gradual development and implementation of the concept of universal education—all these factors combined to make a centralized and specialized educational institution within a state the logical and most practical solution to the educational needs of deaf students. A later development in placement options for these children, especially in large cities, was the separate classroom within a local school system.

In the century and a half following the foundation of the first residential school for the deaf in 1817—the American Asylum for the Education of the Deaf and Dumb (now the American School for the Deaf) in Connecticut—a large majority of the states established special public residential programs for their deaf students. During this same period private schools were opened in various parts of the country, thus providing families of deaf students with options in educational and religious philosophy and in communication methodology.

The separate school system, especially in its residential form, did not go unchallenged in its development. Alexander Graham Bell was an outspoken opponent of separate residential schools for deaf children, voicing his opposition in an article in the *American Annals of the Deaf* (Bell, 1884). In the same year as Bell's article, J. Noyes, Superintendent of the "Minnesota Institute for the Deaf and Dumb and the Blind and the School for Idiots and Imbeciles," reported on a National Teachers' Association meeting in Madison, Wisconsin:

> It was then and there claimed that [local] departments connected with our public schools should be opened for the education of the deaf, articulation the sole medium of instruction, and the deaf made to mingle freely with other children, and also share the care and comforts of home, thus discarding State schools and the sign system teaching entirely (Noyes, 1884, p. 23).

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[1] A slightly different version of this paper is being presented at the October, 1994 conference in Washington, DC, "Inclusion?—Defining Quality Education for Deaf and Hard of Hearing Students," co-sponsored by Gallaudet University's College of Continuing Education, the American Society for Deaf Children, the Educational Resource Center on Deafness—Mid-Atlantic Region, Gallaudet University's Pre-College Programs, the National Association of Private Schools for Exceptional Children, and Programs for Students Who Are Deaf or Hard of Hearing—Montgomery County (MD) Public Schools.

This negative attitude toward "State schools"--and toward separate educational placement in general—has been advanced more recently in such terms as "mainstreaming," "least restrictive environment," "deinstitutionalization," "normalization," "integration," and "inclusion." All of these terms have been selected for their positive, friendly connotations and thereby give the inclusion movement an immediate semantic advantage. Who in our society, after all, wishes to be "out of the mainstream"? Who wants to attend school—or do anything, for that matter—in a "restrictive environment" or be "institutionalized" because one is "abnormal"? Who would choose to be "excluded" or "segregated," with all the ugly racial overtones suggested by these words? (To reinforce the connection between racial segregation and special education, Stainback, Stainback, and Bunch, 1989, cite a 1988 statement by former Senator Lowell Weicker making this comparison and implying that there is very little difference between these two "segregations.")

The fact that each of the "friendly" concepts within the inclusion movement requires not only a detailed explanation of its meaning but also various limitations and qualifications related to type or severity of disability often escapes notice. This fact will be discussed in a later section of this paper.

Perhaps, the most prominent recent influence on the educational placement of disabled children has been the enactment, in 1975, of Public Law 94-142, the "Education for All Handicapped Children Act," which legislated "a free, appropriate public education" for all disabled children in the "least restrictive environment" (LRE). Madeleine Will, during her tenure as Assistant Secretary of Education in the Office of Special Education and Rehabilitative Services (OSERS), emphasized the LRE phrase within the legislation and was considered a strong advocate of educating disabled children in regular education classrooms insofar as that was possible. (See, for example, the U.S. Department of Education's sixth annual report to Congress, 1984, and Will, 1986, in the OSERS newsletter; also the comments of Biklen, 1986, presumably endorsed by OSERS in that same newsletter: "The least restrictive environment principle . . . establishes a definite presumption in favor of integrated education," p. 8.)

It should be noted at this point that there appears to be some disagreement among advocates of full inclusion regarding the placement of deaf children. Bunch (1994), a supporter of the inclusion philosophy, addresses placement options for children with severe hearing loss and states that ". . . most people identified closely with full inclusion do not argue that all children should be forced to do one thing or another" (p. 152). However, that position does not seem to square with the statement of many adherents of full inclusion, as the discussion section below indicates.

The ongoing debate regarding educational placement of disabled children has shuttled back and forth over the past decade. Robert Davila, Will's successor at OSERS, while necessarily supporting the LRE initiative of P.L. 94-142, was considerably less enthusiastic about its application to deaf children:

> . . . if you asked me for the *single* issue that most thwarts our attempts to provide an appropriate education for deaf children, I would tell you . . .: the interpretation and application of the LRE provision . . . . School districts are applying the LRE provision by generalizing that placements in or closer to the regular classroom are

> somehow inherently less restrictive for all children with disabilities. While this may be true for many children with all types of disabilities . . . for a deaf child, these settings may be completely isolating due to communication factors (Davila, 1992, p. 3, italics in original).

The presidential campaign of 1992 provoked several comments on the inclusion of disabled children in the least restrictive environment, interpreted by some to mean the local school or, in its more extreme meaning, the local *regular school* environment. Thus, the Clinton campaign was cited as "promising a program of 'inclusion not exclusion' for children . . . with disabilities" (*Education Week*, November 11, 1992). Almost simultaneously a press release from the same Clinton-Gore headquarters indicated that although Clinton would support

> efforts to integrate children with disabilities into their school's regular activities . . . in certain instances where it is felt that people with disabilities have particular needs, (he) will encourage these communities to develop the resources and facilities which they feel are best for them (Press Release, October 22, 1992).

At about the same time in the presidential campaign, Secretary of Education Lamar Alexander issued a policy statement in the *Federal Register* for October 30, 1992, under the title, "Deaf Students Education Services: Policy Guidance." Alexander was concerned

> . . . that some public agencies have misapplied the [least restrictive environment] provision by presuming that placements in or closer to the regular classroom are required for children who are deaf, without taking into consideration the range of communication and related needs that must be addressed in order to provide appropriate services (U.S. Department of Education, p. 49275).

Alexander's words echo those of Davila, his Undersecretary of Education for OSERS, just one week earlier.

More recently, Albert Shanker, president of the American Federation of Teachers, has called for a moratorium on full inclusion, citing issues of funding, teacher training, and classroom discipline (American Federation of Teachers, 1994). The National Education Association, though not endorsing such a moratorium, warned about the inclusion of disabled children in the absence of qualified teachers and other classroom aides (Richardson, 1994).

One need only glance at issues of the journal *Exceptional Children* for the past 10 years to note the proliferation of articles concerning REI (regular education initiative), GEI (general education initiative), and full inclusion. Defenders and opponents of these various movements wage battle back and forth in the pages of the journal—citing registered letters to their opponents and private conversations at national meetings—very unlike the often dry statistical pages in research articles. Any attempt to distinguish their positions becomes mired in numerous subtle distinctions. A recent article, though written in opposition to full inclusion, recounts some of the background and history of the full inclusion movement (Fuchs & Fuchs, 1994).

The full inclusion philosophy, therefore, appears to be the *final* step in the movement away from special education. The initial steps of this movement involved *some* disabled children—the children envisioned in P.L. 94-142 who could benefit from such an environment. This type of partial inclusion of certain disabled children in the local school environment appears to be simply an implementation of P.L. 94-142; and there has been much discussion and wrangling over which children would be included and how they would be educated in the least restrictive environment. The ultimate step in the inclusion movement—full inclusion—is the placement of *all* disabled children in the regular school setting.

Thus, the stage has been set for a major struggle between those favoring such full inclusion and those who would retain special education and the placement of some disabled children in the special school or special classroom environment. In order to provide some background for this controversy, the following sections of this paper present a "What if . . ." scenario: that is, *what* would be the likely impact on those deaf and hard-of-hearing children now in special education—children with certain demographic and other educationally significant characteristics—*if* they were moved from special education into a regular education setting.

Annual Survey of Hearing Impaired Children and Youth

The data presented in this study were collected in the Annual Survey of Hearing Impaired Children and Youth (now the Annual Survey of Deaf and Hard-of-Hearing Children and Youth). This survey, in operation since 1968, is a national data collection project conducted by the Center for Assessment and Demographic Studies in Gallaudet University's Research Institute. Each year the survey requests that special educational programs across the U.S. complete a form on their deaf and hard-of-hearing children, including demographic, audiological, program, and other educationally related information.

A question arises regarding how representative the Annual Survey database is of all children with hearing impairment in special education across the U.S. If the numbers of children reported by the states to the federal government for the various disability categories are accurate—the so-called "child count"—then the Annual Survey includes approximately 60% to 65% of all deaf and hard-of-hearing children receiving special education. As Ries (1986) has pointed out, Annual Survey coverage of profound loss children and of those receiving full-time special educational services is more complete than of children with less severe losses and those in part-time special education.

The data presented in the following section will show changes in the placement of children with hearing impairments over the past 15 years. It will also provide a backdrop for a discussion of the nature and especially the magnitude of any attempt to include all deaf and hard-of-hearing children in a regular education framework.

Enrollment in Four School Settings

Background. One question included on the survey from its beginning in 1968 has been the type of facility in which the children have been enrolled. Each school participating in the survey is also asked to supply information about the integration of its deaf and hard-of-hearing students with hearing students for *academic* classroom instruction.

Results. In order to give some background to this discussion of inclusion and also some idea of recent changes in the educational placement of deaf and hard-of-hearing students, Table 1 shows the enrollment of these students in four types of special educational settings for the 1975-76, 1985-86, and 1992-93 school years. (P.L. 94-142 was passed in 1975.) These settings are: (1) residential school for the deaf, (2) day school for the deaf, (3) regular school or local facility but not integrated with hearing students for academic classroom instruction (i.e., the self-contained classroom setting), and (4) regular or local school facility and integrated with hearing students *for some academic classroom instruction*. The data reported in Table 1 are limited to children and youth in the birth through 22-year-old age range, and it should be stressed that the data for all three years include only children in special education.

One notable feature of Table 1 is the similarity in total enrollment reported to the survey for each of the three years. This is worth noting because it means that any significant demographic or educational changes among the four placements are due to factors other than large-scale fluctuations in the number of students reported for each of the three school years.

Table 1 shows the steep decline in enrollment reported by the residential schools between 1976 and 1993, a loss of almost 9,000 students (47%) in just 17 years. (In reality, this decline began gradually in the seventies, due in part to the decrease in the general school-age population during that period; see Schildroth, 1980.)

TABLE 1: Enrollment of Deaf and Hard-of-Hearing Students in Four Special Education Settings: 1975-76, 1985-86, and 1992-93 School Years (*Source*: Annual Survey of Hearing Impaired Children and Youth)

N.B.: The shaded portion of Table 1 indicates the three placements that would be eliminated under *full inclusion*, with a transfer of these students into local integrated classrooms in regular education (the unshaded portion).

	1975-76	1985-86	1992-93
	N=43,780	N=43,906	N=43,817
Residential School for the Deaf	42%	26%	22%
Day School for the Deaf	12%	10%	8%
Local, Not Integrated	25%	20%	19%
Local, Integrated*	20%	44%	51%
TOTAL	100%	100%	100%

*These "integrated" children are in *part-time* special education. Integration refers to classroom instruction with hearing students for some *academic* instruction.

Both the day school and *non-integrated* local school placements also experienced enrollment declines between 1976 and 1993, but of a much less severe nature. Corresponding to the precipitous drop in residential school enrollment during these 17 years was the dramatic increase in the *integrated* local school placement, an increase of slightly over 13,000 children (148%).

What accounts for this serious drop in residential school enrollment and the concurrent increase in the integrated local school setting? One factor to keep in mind in reviewing enrollment statistics over this period is the decline in the *overall* school-age population (ages 5 through 17) between 1980 and 1990, a decline of 5.8% (U.S. General Accounting Office, 1993). This would certainly affect enrollment generally, including special education; but it does not explain the residential school and local school enrollments moving in such diametrically opposite directions during this same period.

The departure of the "rubella bulge" children from the secondary school system in the early 1980s had a serious effect on enrollment in the residential schools. These were children born with hearing loss due to the maternal rubella epidemic in the mid-1960s. Since the rubella children were fairly evenly divided between residential and local school placements, it would seem that their transition from high school would have had an equally negative effect on enrollment in the local setting. As Table 1 shows, however, it did not.

One major reason for this placement shift has been the large increase in children with less-than-severe hearing impairment reported to the Annual Survey between 1976 and 1993. In 1976, 27% of children between birth and age 22 were in the less-than-severe hearing loss range; in 1993 that percentage had risen to 45%. Children with less serious hearing impairment are more likely to be enrolled in local schools, especially in integrated classrooms.

This sharp enrollment shift away from special schools and toward the local schools has also been encouraged by P.L. 94-142 and the least restrictive environment interpretation emphasized by some educators and government officials, both at the federal and state levels. The influence of this interpretation in favor of the local or mainstream programs is reflected in the comments by Undersecretary of Education Davila quoted above and by Secretary of Education Alexander in his policy guidance statement published in the *Federal Register*, also cited above.

From the data presented in this section it is obvious that years before the more recent, contentious controversy over *full* inclusion, there was already an ongoing change in the educational placement of deaf and hard-of-hearing students—namely, a rather substantial movement away from separate schools, especially residential schools, and into the local integrated school setting.

Degree of Hearing Loss

Background. Degree of hearing loss is, obviously, a critical audiological variable in the school placement of deaf and hard-of-hearing children. Former Secretary of Education Alexander was quoted above regarding the "needs" of deaf children, and P.L. 94-142 requires an individualized education program for these children according to their needs (Danek & McCrone, 1986). Perhaps the most important characteristic of deaf and hard-of-hearing children determining those needs is the degree to which their hearing has been affected.

Results. In order to get some idea of what a wholesale transfer of deaf and hard-of-hearing children from special education into the integrated local school setting—that is, the full inclusion model—would entail, Table 2 shows the distribution of children with six degrees of hearing loss in the four placement settings used for Table 1. The data are from the 1992-93 school year.

As would be expected, enrollment in the residential and day schools consists largely of children and youth with severe-to-profound hearing losses (i.e., those with a hearing threshold of 70 dB or higher in the better ear). Eighty-nine percent of the residential school children were in this category; 82% of the day school students were reported to be in this hearing loss group. In contrast, in the local schools only 38% of the children *integrated with hearing students* for some academic classroom instruction were in the severe-to-profound loss range, a percentage that was exactly the same 17 years earlier, during the 1975-76 school year (Karchmer & Trybus, 1981).

Thus, a sizable majority (62%) of children integrated with hearing students in the local schools was in the less-than-severe loss category, a group with more residual hearing and therefore more likely to benefit from the use of hearing aids than children with more serious losses. This situation was exactly reversed in the residential and day schools, where large majorities were in the most serious hearing loss range.

TABLE 2: Degree of Hearing Loss of Deaf and Hard-of-Hearing Children in Four Special Education Settings (*Source*: 1992-93 Annual Survey of Hearing Impaired Children and Youth)[a]

N.B.: The shaded portion of Table 2 indicates the three placements that would be eliminated under *full inclusion*, with a transfer of these students into local integrated classrooms in regular education (the unshaded portion).

DEGREE of HEARING LOSS	Residential School	Day School	Local, Not Integrated	Local, Integrated
	N=9,357	N=3,673	N=7,917	N=21,816
Within Normal Limits	<1%	2%	3%	15%
Mild	<1%	2%	6%	16%
Moderate	3%	5%	11%	17%
Moderately Severe	7%	9%	15%	14%
Severe	20%	22%	23%	15%
Profound	69%	60%	41%	23%
TOTAL	100%	100%	100%	100%

[a] N's in this table will differ slightly from total N's in Table 1 due to non-responses for the hearing loss variable.

In the local non-integrated classrooms, 64% of the students were in the severe-to-profound hearing loss category. (More will be said about these children in later sections of this paper, especially in those dealing with race/ethnic background and additional disabilities.)

Communication Methodology

Background. Another critical variable in the education of children with hearing impairment—especially deaf children—is the type of communication methodology used in the classroom. This variable must be taken into consideration in any large-scale movement of deaf children away from an educational placement emphasizing one communication methodology—for example, signing—into a quite different setting, especially one that stresses or has access to staff trained and qualified in a different methodology—for example, an oral/auditory methodology.

The Annual Survey's questionnaire requests that a school indicate the methodology "primarily used" in the classroom with each student being reported to the survey. It offers schools four specific options as a response for this communication question: auditory/oral only, sign and speech (includes Total Communication and sign interpreter), sign only, and cued speech. A general "other" response category could also be checked. The school is requested to check only one of these options.

In the years following 1975, there was a growing use of sign in special education programs for children with impaired hearing. However, during the 1980s, Annual Survey data have shown a gradual levelling off of this growth; and the use of signs with deaf students—either alone or in combination with speech—has remained fairly steady during this period. (In both 1986 and 1993, 85% of the children in the birth through 22 age range with *severe to profound* hearing losses were reported being taught by sign alone or by some sign system.)

Results. Table 3 depicts the use of communication methodologies reported to the 1992-93 Annual Survey by the four placement settings being discussed in this study. Although in the Annual Survey database signing is reported, in large measure, for children with severe and profound hearing losses, Table 3 includes children with all degrees of loss, since full inclusion does not make any such distinctions in its placement philosophy.

The significantly more frequent use of the auditory/oral communication method in the local integrated classrooms is understandable in light of the data on degree of hearing loss displayed in Table 2 above. Sixty-two percent of the children in the *integrated* setting were in the less-than-severe loss category and would therefore prove more amenable to an auditory/oral communication system. (A large majority, approaching 70%, of the severe-to-profound loss children in the local integrated setting used a sign interpreter in the classroom.)

Sign, either alone or in combination with speech, was by far the preferred method of classroom instruction in the special schools, both residential (96%) and day (77%). A very large majority of children in the special schools was in the severe to profound loss range—89% in the residential schools, 82% in the day schools. The correlation between degree of hearing loss and classroom communication methodology is apparent in these percentages—as it is for the local integrated setting discussed in the previous paragraph.

TABLE 3: Classroom Communication Methodology of Deaf and Hard-of-Hearing Children in Four Special Education Settings (*Source*: 1992-93 Annual Survey of Hearing Impaired Children and Youth)[a]

N.B.: The shaded portion of Table 3 indicates the three placements that would be eliminated under *full inclusion*, with a transfer of these students into local integrated classrooms in regular education (the unshaded portion).

	Residential School	Day School	Local, Not Integrated	Local, Integrated
	N=9,632	N=3,673	N=8,100	N=22,124
Auditory/Oral	4%	23%	25%	60%
Sign & Speech	92%	72%	72%	38%
Sign Only	4%	5%	2%	<1%
Cued Speech	<1%	<1%	<1%	<1%
Other	<1%	<1%	1%	<1%
TOTAL	100%	100%	100%	100%

[a] N's in this table differ slightly from total N's in Table 1 due to non-responses for the communication variable.

Students in the local non-integrated setting present a different picture for communication methodology from those in the integrated classrooms: 74% of the non-integrated children were being taught by sign language or some sign system in 1993. The obvious reason for this difference may be found in the much larger percentage of severe and profound loss children in the non-integrated local setting than in the integrated classrooms (Table 2) and also, possibly, in the large proportion of multiply handicapped children within the self-contained classrooms. Whatever the cause, the relationship between hearing loss and communication methodology—and, it would appear, placement—manifests itself in this non-integrated setting also.

Race/Ethnic Background

Background. After the sharp decline in special school placement over the last 20 years, perhaps the next most important change within the education of deaf and hard-of-hearing children during this period has been that regarding race and ethnic background.

Results. Table 4 will present enrollment changes in the four placement options for individual racial/ethnic groups.

White, non-Hispanic Enrollment. White enrollment declined sharply in three of the four placement options between 1976 and 1993; the local integrated group was the exception, where white enrollment increased by a substantial 99% (6,700 students) over the 17 years. For the local non-integrated category there was a drop of 3,177 white students (44%). There also were large declines in white, non-Hispanic enrollment for both the residential and day schools for this period: 53% for the residential schools (a loss of over 7,000 students) and 31% for the day schools. (All this was taking place while the total number of white students being reported to the Annual Survey between 1976 and 1993 was declining by only 15%.) Thus, according to Annual Survey data, white student enrollment during this period was decreasing significantly in the special schools and self-contained classrooms and increasing steadily in the integrated local school setting.

Black, non-Hispanic Enrollment. Although there were changes in the placement of black students between 1976 and 1993, these changes were within a much narrower range than those just seen for white enrollment. In the residential schools, although the actual number of black students dropped by almost 900, their percentage of the total residential school population grew over the 17 years, from 16% in 1976 to 20% in 1993. In the day school setting, black enrollment declined both numerically (by 363 students) and as a percentage of the total day school population (from 24% in 1975 to 21% in 1993). Within the integrated local school setting, black enrollment increased from 986 students in 1976 to 3,334 in 1993, an increase of 238%. In the non-integrated local schools, black enrollment showed a modest increase of 4% (fewer than 100 students).

TABLE 4: Racial/Ethnic Background of Deaf and Hard-of-Hearing Students in Four Special Education Settings (*Source*: 1992-93 Annual Survey of Hearing Impaired Children and Youth)[a]

N.B.: The shaded portion in Table 4 indicates the three placements that would be eliminated under *full inclusion*, with a transfer of these students into local integrated classrooms in regular education (the unshaded portion).

	Residential		Day		Local, Not Integrated		Local, Integrated	
YEAR—>	1976	1993	1976	1993	1976	1993	1976	1993
N =	17,491	9,682	4,673	3,662	10,288	8,065	8,389	21,971
White	77%	65%	54%	47%	71%	51%	81%	62%
Black	16%	20%	24%	21%	17%	22%	12%	15%
Hispanic	5%	10%	21%	26%	9%	19%	5%	17%
Asian-Pacific	<1%	3%	<1%	3%	2%	5%	<1%	4%
Other	1%	3%	<1%	3%	2%	3%	1%	2%
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%

[a] N's in this table will differ slightly from total N's in Table 1 due to non-responses for the race/ethnic background variable.

Hispanic Enrollment. Some of the more startling changes in educational placement occurred within the Hispanic group reported to the Annual Survey between 1976 and 1993. The total number of Hispanic children in the Annual Survey climbed by 114%, an increase of 4,077 students for this period. The number of Hispanic students in the residential schools—traditionally not a popular placement option within Hispanic families—increased by only 16% (129 students) over the 17 years. During this same 17-year time frame, day schools reported slight decrease in the number of Hispanic children, although, as Table 4 indicates, their proportion of 1993 day school enrollment increased from 21% to 26%.

It is in the local integrated school setting that the most substantial change occurred for any racial or ethnic group. In this setting, the number of Hispanic children and youth increased from 445 in 1976 to 3,661 in 1993, a precipitous climb of 723%.

At the local non-integrated schools, the Hispanic group showed an increase of 64%—from 951 in 1976 to 1,564 in 1993.

Asian/Pacific Enrollment. Although still relatively small in number, the Asian/Pacific group of students is the fastest growing racial or ethnic group in the Annual Survey. Between 1976 and 1993 their numbers grew by 320% (from 435 to 1825).

Like the Hispanic group, residential school placement has not been a substantial option for deaf Asian/Pacific children. These students accounted for less than 1% of the residential school enrollment in 1976; in 1993 that percentage had risen to 3%. Similar percentages were reported from the day schools—less than 1% in 1976, 3% in 1993.

The differences between 1976 and 1993 for the Asian/Pacific children were somewhat more substantial in the local schools than in the special schools. Non-integrated local school enrollment for these students rose from 2% in 1976 to 5% in 1993, and in the integrated local setting from less than 1% to just over 4%.

"Other" Ethnic Enrollment. Schools were able to check an "other" ethnic category on the Annual Survey form. Like the numbers for the Asian/Pacific children, this "other" category is a relatively small group—488 students in the 1976 survey and 505 in 1993—approximately 1% of the Annual Survey total database.

As Table 4 indicates, the "other" group comprised 3% of the enrollment in three of the educational placements for 1993. In the fourth, the local integrated schools, their percentage was 2%. These 1993 percentages represented small increases over 1976, but the growing numbers of this group within the deaf and hard-of-hearing student population—together with other more numerous minority children—emphasize once again the importance of minority children with hearing impairments who are receiving traditional placement options.

Additional Disabilities

Background. As indicated in a previous section, the needs of individual children should be the prime consideration in the educational placement of children with disabilities. One characteristic determining these needs is the presence of other disabilities in addition to the primary disability. The Annual Survey requests information from the school on other disabilities that have an adverse affect on the education of the child.

Results. There were small increases of 3% in the number of children with one or more educationally significant additional disabilities in the residential schools and in both categories within the local schools between 1976 and 1993. (The percentage remained the same in the day schools reporting to the Annual Survey for this period.) The percentages of children with additional disabilities were very similar for the residential schools (32%), the day schools (30%), and the local integrated classrooms (31%).

In terms of the effect that implementation of a full inclusion model might have on the education of children with impaired hearing, perhaps the most significant number to consider is the very large percentage of deaf and hard-of-hearing children with educationally significant multiple disabilities within the *local non-integrated group*: 40%, including 13% with two or more additional disabilities. During the 1992-93 school year the local non-integrated group also reported a large number of children with mental retardation: 15%, compared to 7% for the residential schools, 5% for the day schools, and 7% for the local integrated schools. The local non-integrated setting also reported 9% of their children with blindness or educationally significant vision impairment.

Children with educationally significant emotional or behavioral problems are a special concern to educators weighing the impact of full inclusion on regular education classrooms. Among the four placement options considered in this study, the highest percentage of students with these emotional/behavioral problems was reported from the residential schools: 7%, compared with 3% for the local integrated classrooms, 5% for the day schools, and 4% for the local non-integrated students.

The local integrated classrooms reported the largest enrollment of students with learning disability—11%.

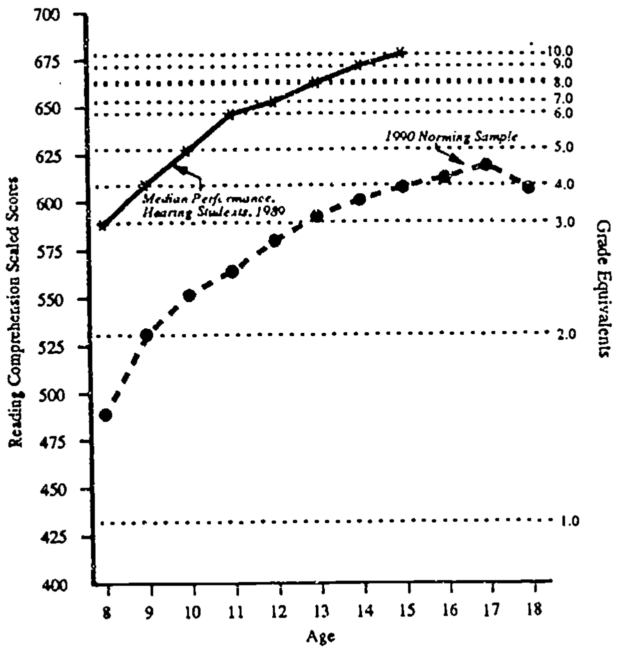
Achievement Test Results and Placement

Background. Numerous studies have examined the relationship between type of educational placement and the achievement test scores of deaf students. In general, these studies have documented the higher achievement of children in the integrated local setting over children in the special schools or those in the non-integrated local placement (Allen, 1986; Allen & Osborne, 1984; Holt, 1993).

Several features of these studies are worth noting. First, the authors of the articles just cited disclaim any inference that placement in a particular educational setting is the cause of either higher or lower achievement. The children may have been placed in a setting *because* they were performing at a higher—or lower—achievement level to begin with.

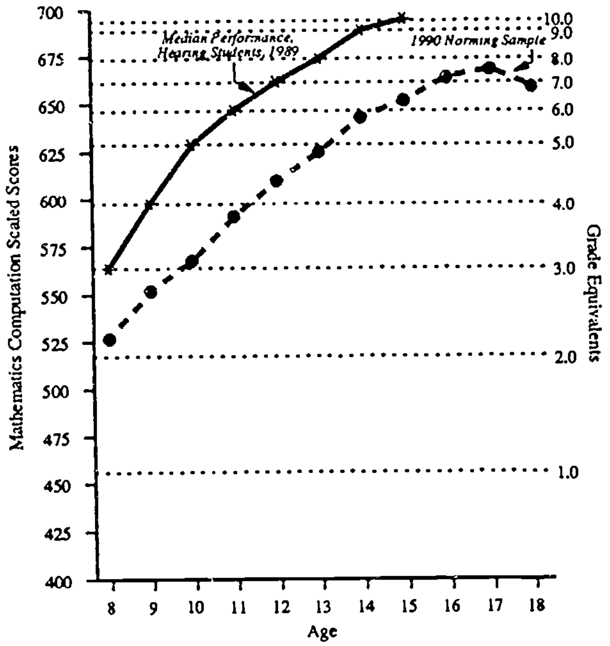
Second, these authors emphasize the relationship between placement and degree of hearing loss, a relationship discussed in an earlier section of this paper. Children with less-than-severe hearing losses are much more likely to be enrolled in local integrated schools than children with severe to profound losses. Since children with less-than-severe losses have consistently shown higher achievement on standardized tests than children with more serious losses (Allen, 1986; Holt, 1993), there is a high probability that the severity of hearing loss has a close relationship with achievement test results. This conclusion relates to an earlier section of this paper showing a distribution of hearing loss in the special schools and the self-contained local classrooms much different from the distribution of loss in the local integrated classrooms. A corollary of this placement distribution according to degree of hearing loss is the achievement test results just noted: achievement in the integrated local setting higher than in special schools or in the local non-integrated classrooms.

Results. Figures 1 and 2 present results from a 1990 project conducted by the Center for Assessment and Demographic Studies that developed norms for deaf students on the Stanford Achievement Test (Holt, Traxler, & Allen, 1992). (Results for hearing children on the two figures stop at age 15 because these youth are not generally administered the Stanford beyond that age.)



Source: Norms Development Project, Center for Assessment and Demographic Studies, Gallaudet University, 1990.

Figure 1. Median Reading Comprehension scaled scores on the Stanford Achievement Test for deaf students, by age.



Source: Norms Development Project, Center for Assessment and Demographic Studies, Gallaudet University, 1990

Figure 2. Median Mathematics Computation scaled scores on the Stanford Achievement Test for deaf students, by age.

Reading. Figure 1 compares results of hearing children in regular schools on the Stanford reading comprehension subtest to students with impaired hearing from the 1990 norming project.

The most obvious result displayed in Figure 1 is the wide discrepancy at each level between the reading achievement of hearing children and that of deaf children. (A similar discrepancy was found in the 1974 and 1983 norming projects for the 6th and 7th Edition Stanfords; see Jensema, 1975; Allen, 1986.) At ages 17 and 18—the approximate age of departure from high school for most students—the average deaf student in the 1990 standardization project was reading at the 3rd to 4th grade level.

Mathematics. A similar disparity can be found between hearing and deaf students in the Stanford mathematics computation results, as Figure 2 shows. At each age level, hearing students were performing better than those with impaired hearing.

The disparity between hearing and deaf students is not as great in mathematics as in reading because the deaf students generally are performing at a higher level in mathematics than they are in reading. Thus, many deaf students are performing at one level in reading and at another level in mathematics computation—usually at a higher level. This discrepancy between the reading and mathematics levels of many deaf children introduces an added complication for placement decisions regarding these children, one that will be discussed more fully in a later section of this paper.

Summary of Data Results

The data reviewed in this paper have shown differences in the enrollment patterns of deaf and hard-of-hearing children and youth over a 17-year period between 1976 and 1993. They have also revealed certain demographic, audiological, and communication differences in four placement options for these students: in residential and day schools, in self-contained classrooms at the local schools, and in classrooms integrated with hearing students at the local school level. The purpose of examining these differences is to review how they will affect the future placement of deaf children and youth, especially in light of the full inclusion movement.

The main results of this examination of Annual Survey data have been the following:

(1) *Enrollment.* Special schools for deaf students, especially residential schools, experienced a precipitous enrollment decline through the seventies and eighties. According to data reported to the Annual Survey of Hearing Impaired Children and Youth, residential schools enrolled 18,593 students during the 1975-76 school year; by 1992-93 enrollment in these schools was 9,855, a drop of 47%. There were also enrollment declines in day schools (22%) and in the local, non-integrated classrooms (22%). It was in the local, integrated classrooms, however, that the largest enrollment change occurred between 1976 and 1993: an *increase* of over 13,000 deaf and hard-of-hearing students (148%).

(2) *Degree of Hearing Loss.* A second area examined within the Annual Survey database was the distribution of students according to the severity of their hearing loss. As would be expected, residential and day schools had very large percentages of their students in the *severe to profound* range of loss—89% for the residential programs and 82% for the day schools. Sixty-four percent of the students enrolled in the local non-integrated setting were also reported in this hearing loss range. In contrast, only 38% of students in local integrated classrooms had severe to profound hearing losses.

(3) *Communication Methodology*. Differences among the four placement settings were apparent in the type of classroom communication methodology used to teach students. Sign—either in combination with speech or alone—was the almost exclusive methodology in the residential schools (96%); it was also used extensively in the day schools (77%) and in the local non-integrated settings (74%). In local integrated classrooms, the predominant methodology was the auditory/oral method (60%), due undoubtedly to the predominance of children with less-than-severe hearing losses in that setting.

(4) *Race/Ethnic Background*. The racial and ethnic distribution of students in the four placement options also showed differences. Table 4 above gives a breakdown of white, non-Hispanic students and four minority groups in these four settings. Minority enrollment, as a percentage of total enrollment, increased in all four settings, growing from 19% in the local integrated classrooms in 1976 to 38% in 1993, an increase of almost 7,000 students. Although the number of minority children in both the residential and day schools dropped, minority enrollment as a percentage of total enrollment in these two settings increased, from 23% to 35% in the residential schools and from 46% to 53% in the day schools—as Table 4 indicates. In both cases, the percentage increase was due, in large measure, to the steep *decline* of white, non-Hispanic students in the residential and day schools.

Minority enrollment in the local non-integrated classrooms increased by approximately 1,000 students between 1976 and 1993, growing from 29% percent of enrollment to 49%, an increase especially noticeable among Hispanic students.

(5) *Additional Disabilities*. Special schools and the local integrated programs reported approximately the same percentage of deaf children with educationally significant conditions in addition to their hearing impairment—slightly over 30%. In any possible transfer of deaf children into regular education classrooms, the largest impact would probably come from the local non-integrated setting, where 40% of deaf children in the self-contained classrooms were reported with additional conditions, including 15% with mental retardation and 13% with two or more such additional conditions.

(6) *Achievement Test Results*. Based on results from several different studies using the Stanford Achievement Test, deaf students are generally performing at a considerably lower level than their hearing agemates in both reading and mathematics. Many of these students are also achieving in mathematics at a different, usually higher, level than the level at which they are reading.

An added complexity in the achievement test area is the fact that deaf students in special schools and in local self-contained classrooms are reading at a lower level than deaf students of the same age in the local integrated classrooms.

Discussion

The variables selected for analysis in this paper present only a partial view of the complex placement picture for deaf students. They have been selected, however, because they appear critical to this placement process. Severity of hearing loss has a profound effect on the communication and achievement attainment of deaf children and youth, and the two latter variables in turn exert their own substantial influence on both the postsecondary education and work careers of young deaf adults. The racial and ethnic background of students, often complicated by family economics and language used in the home, is another variable examined in this paper and has its own impact on the education of deaf students.

In regard to the main topic of this paper, full inclusion, the data analyzed here lead to a series of questions. They are rather obvious questions; they do *not* imply that the full inclusion model is wrong. But the questions and the responses given to them should be reviewed in light of the serious implications they have for any radical changes in the educational placement of deaf children, including changes advocated by supporters of full inclusion.

(1) Do supporters of full inclusion really mean "full" when they write of "full inclusion" of disabled students in regular education classrooms?

This is a preliminary and obviously critical question for any discussion of full inclusion. Its answer, garnered from the writings of those who advocate full inclusion, is "yes." Thus, a 1989 book edited and written by three prominent supporters of this movement is titled *Educating All Students in the Mainstream of Regular Education* (Stainback, Stainback, & Forest, 1989). "Educating all students in the mainstream means that *every student* is in regular education and regular classes" (Stainback & Stainback, 1990, p. 3, italics added). Special and regular education would be merged in a single, all-encompassing educational system (Stainback & Stainback, 1984; cf. Gartner & Lipsky, 1987).

It is very important at this point to be precise in speaking of full inclusion. Supporters of this radical change in education would undoubtedly eliminate special education (Stainback & Stainback, 1990). At the same time, in answer to their own question, "Is there ever a need for special education?", full inclusionists concede that "The personnel, curriculum, and methods in special education are definitely needed to provide all students educational and related services that meet their individual needs" (Stainback & Stainback, 1990, p. 15). Wang and Walberg (1988) insist that the "REI [regular education initiative] is not aimed at eliminating or subordinating special education services" (p. 128).

If, then, the "personnel, curriculum, and methods" of special education are to be retained, what is to be eliminated and merged? Is it merely the name "special education"? If a school district must hire an occupational therapist, a sign interpreter, a speech therapist, and a part-time nurse to assist in educating a deaf child, how is this different from the present "special education"? Is this an argument about semantics or philosophy of education rather than the classroom reality? If special education teachers and their methods are "definitely needed" in the full inclusion model, how is "full inclusion" different from P.L. 94-142, mandating the placement of all children with disabilities in the "least restrictive environment"—with a continuum of services and attention to the individual needs of these children? The latter question leads into a discussion of the placement needs of deaf students and the relationship of these needs to the data presented earlier in this paper.

(2) In light of the "degree of hearing loss" results displayed in Table 2, how will the side by-side classroom integration of deaf children with hearing students in regular education be accomplished?

As indicated earlier, the full inclusion placement model would eliminate special education schools and classes. Deaf children presently being educated in residential schools, day schools, and local, non-integrated classrooms—the shaded columns of the four tables in this article—would be incorporated into *regular education classrooms* with hearing children, with children having other disabilities, and with children having less-than-severe hearing losses (the unshaded column in the tables). Classroom aides and perhaps other staff needed to assist in meeting the specific needs of all these children would often be present in these classrooms. Such a placement revision raises several potential problems regarding deaf children.

The first is the "one deaf child in a school" problem. In the 1993 Annual Survey there were 1,006 schools or program sites with only one *deaf* student. Like all children, these deaf students have social and emotional needs equally as critical to their development as their academic needs. The question may fairly be asked how such single-deaf-student schools can satisfy these needs for children with severe to profound hearing losses. This question revolves around what some writers have called the "critical mass" theory: that is, a sufficient number of deaf classmates in a school to support the student-to-student and student-to-teacher communication and interaction basic to the learning process and to initiate and foster social and cultural cohesion among themselves. Without such a critical mass, a single deaf child is often isolated in the regular education setting and the LRE becomes the MRE, the most restrictive environment. As Antia, Kreimeyer, and Eldridge (1994, p. 262) point out in their study of the interaction of deaf children and hearing classmates, "Social interaction with peers is an important component of the socialization of all young children and eventually becomes a major influence in their lives . . ."

A good example of difficulties arising from this lack of a critical mass of deaf children within a placement option may be observed in Wang (1989), a strong advocate of full inclusion. She writes of an "educational approach known as *adaptive instruction*" (p. 183, emphasis in original) as one model for integrating disabled children into the regular education classroom. One feature of this approach is that children interact among themselves in small groups in the classroom. The results of experiments with this approach in accommodating student diversity appear to be positive.

However, this is precisely the kind of atmosphere—a "hearing" classroom—where deaf children in the past have often had the most problems and where interaction between deaf and hearing children has been found to be limited (Antia, 1982; Arnold & Tremblay, 1979; Levy-Schiff & Hoffman, 1986). Hearing children, by and large, do not know sign language; the exuberance of classroom interaction in such an instructional approach where spoken language is bandied back and forth is very easily lost for deaf children. Hearing children, for the most part, do not sign—despite some well-meaning efforts to teach them and the claims of some local schools that they have special classes of sign instruction. At a time when criticism is being directed at the lack of classroom instruction on core curriculum subjects, it is not likely that class time in regular education will be allotted to special sign classes for hearing children.

A second potential problem with the transfer of deaf children into regular education classrooms—one that is linked to the data presented above on classroom communication methodology—involves the difficulty of finding qualified teachers and staff, including interpreters, to educate students with serious hearing impairment. This problem will be discussed more fully in the following section on language development and communication methodology.

(3) In a full inclusion of deaf students in regular education classes, how will the unique *language* development of these students be initiated and sustained? How will the "individual needs" required by law be met realistically in light of the classroom communication methodology data presented in Table 3, especially with the present fiscal restrictions being experienced by many school districts?

Deaf students must take a unique approach to English language development. For most deaf children of deaf parents, that approach is made easier by having a first language in the home, American Sign Language (ASL). English then becomes their second language. However, finding qualified ASL teachers would necessarily complicate the regular classroom learning of English as a second language for these children of deaf parents. Large city school systems have experienced difficulty finding competent teachers with diverse language backgrounds to teach immigrant children from these backgrounds. A similar situation would exist in trying to find qualified ASL teachers or interpreters for deaf children, especially for larger districts in which deaf children would be dispersed over many grades and classes. In smaller school systems, the hiring problem would almost certainly be even more difficult.

It should be noted also that if those proponents of ASL as the basis for teaching all deaf students English are correct, then the hiring situation becomes even more problematical. In that case, manually coded English (MCE) would not be a legitimate methodology for teaching deaf students (Hoffmeister, 1994), and school systems would be required to hire ASL teachers/interpreters. (Of course, this problem would also exist for existing special educational programs if ASL is determined to be the effective methodology for teaching deaf students English.)

The preceding two paragraphs dealt with deaf children—usually of deaf parents—raised with ASL as a first language. Approximately 95% of deaf children have hearing parents (Annual Survey of Hearing Impaired Children and Youth, 1987). For these children, whose language development usually differs from children in deaf families, English language growth becomes more arduous and more complex. Relying on lip reading or delayed signing, and without a background in ASL as a first language, they must depend on family, teachers, and school staff with the time and skills to work consistently in the development of an English language that is, in great measure, phonetically based and has a sizeable vocabulary. (Children with an ASL language base may also have difficulties with English, but the very early ASL input along with family code-switching into other communication modalities makes the transition to English easier and smoother.)

For children using a sign system and not ASL, the difficulties in hiring qualified sign interpreters or teachers would be similar to those described in an earlier paragraph for obtaining ASL staff. Those difficulties are magnified when one considers student movement within a school or school system—promotion to the next grade, graduation, dropping out, family migration—or the possibility of a single deaf child within a school. Yearly staff hiring and retention and restructuring the schedule of teachers qualified to meet the individual communication needs of deaf students would pose severe financial and logistical pressures on many school districts.

The language development question for deaf students is obviously linked with the reading and mathematics results discussed in the section above on "Achievement Test Results and Placement."

(4) Forty-four percent of the children in special education placement are from minority families; 16% are from an Hispanic ethnic background (Annual Survey of Hearing Impaired Children and Youth, 1993). Although full inclusion of minority deaf children presents the same difficulties as those arising from the full inclusion of white children, the complication involved in moving a growing number of minority deaf children out of special education and into regular education arises from several economic and language factors within some minority families.

The first involves family income. According to Bureau of the Census figures, 27.8% of black families and 23.4% of Hispanic families fell below the poverty line in 1989, compared to 7.8% for white families (U.S.Bureau of the Census, 1991); by 1991 the Hispanic figure had risen to 26.5% (Garcia, 1993; the poverty threshold for a family of four in 1991 was $13,924). Deaf children from economically distressed families may well need special services to aid in their transfer to a new type of educational system. Poverty is not confined to minority families, but because of the growing numbers of minority deaf children, any large-scale placement change would have to consider the impact on regular education of children from economically distressed families. This is especially true in California, Texas, and New York, where minority deaf children now outnumber white deaf children in special education (Annual Survey of Hearing Impaired Children and Youth, 1993).

A second complicating factor for some minority families is the language spoken in the home. It is not known how many families of deaf children either do not use English in the home or use it as a second language. However, CADS conducts a special survey of deaf students in special education in Texas, and during the 1993-94 school year 26% of the 4,505 deaf students reported to that survey were from families using Spanish "regularly" in the home. (Texas State Survey, Deaf and Hard of Hearing Children and Youth, 1994).

If Texas is at all representative of other states, there may well be the problem of a language other than English being used in the home for at least one minority deaf group—the growing number of Hispanic deaf children in special education. This "other" language in the home would present another hurdle to learning English for a deaf child within such a family. Moving these minority children into regular education would add a layer of complexity to the placement process, especially for states with large minority populations like California, Texas, and New York, where there are larger numbers of Hispanic deaf children being reported to the Annual Survey than black children.

Holt, reporting the results of the 1990 project developing norms for deaf students on the Eighth Edition Stanford Achievement Test, noted that "White students scored significantly higher than Black or Hispanic students" on the reading comprehension subtest (Holt, 1993, p. 174). Kluwin (1993, p. 79), in another study of test results of deaf students, cites the "family resource differences, such as. . . overall family income," in the poor achievement of minority deaf children. Whether these results are related to the economic and language factors just discussed is difficult to say. However, depressed achievement test scores for minority students are another point to be considered in the elimination of special education. Although from one viewpoint these low test scores argue for reform of a *special* education system which has failed deaf students, the transfer of deaf minority children into a *regular* education system repudiated by many for its own failure in the education of students does not appear to be a solution to the placement of deaf children.

(5) The achievement test results reviewed in this paper present certain complications for the academic placement of deaf students. These complications and the questions resulting from

them are involved in *any* type of placement decision for deaf students, whether it be a separate special school or a local school setting. But they are especially relevant to the full inclusion placement model which would integrate these students totally with hearing students in a regular education setting. The questions arising from the achievement test results displayed earlier include:

(a) Are deaf students with depressed reading levels to be placed with hearing *agemates* who are reading at a significantly higher level or with *much younger hearing children* who are reading at a similar level? What likely impact will a final decision in this matter have on the academic achievement and on the social/emotional development of deaf students?

(b) In regard to mathematics, there is, for deaf students, a similar dilemma between placement with hearing agemates who are doing mathematics at a higher level or with younger hearing students who are performing at the same mathematics level. In the mathematics area there is an added problem: the necessity of placing deaf students in a mathematics classroom different from their reading level classroom, a situation usually not encountered with hearing students. How will this juggling of different achievement levels be accomplished in the regular school classroom? This is not an insurmountable problem, certainly, but is an added complexity for regular school staff, one that may prove difficult for many schools, especially elementary schools or those with small enrollments and limited staff.

Conclusion

Improvements in educational practice often result from innovative changes and reforms. For educators in both regular and special education, this means not only that the full inclusion movement must be taken seriously and non-defensively, but that it should be examined by asking what proposals and ideas within that movement offer insight into the education of deaf and hard-of-hearing children.

Several of the issues raised by supporters of full inclusion appear justified in terms of special education generally. How much these issues apply to the special education of deaf children is a separate question, one that is seldom asked by advocates of full inclusion. The tendency to lump disability groups together or to generalize research results from one disability group to other groups presents an ongoing problem for educators attempting to incorporate those results into their practice. This problem will become clearer perhaps in a brief discussion of several valid issues raised by the supporters of full inclusion. These issues include labelling, arbitrary definitions of disability, and overrepresentation of some racial/ethnic groups in special education.

(1) If the elimination of special education by supporters of full inclusion is aimed at the facile labelling of disabled children and at the indiscriminate "dumping" of these children into separate schools and classrooms simply because they are "different," then all educators would support the elimination of such harmful practices, with their ugly ties to racial and religious bigotry and segregation. Advocates of full inclusion are very aware of these practices and raise them frequently in their arguments against special education (e.g., Biklen, 1989; Stainback & Stainback, 1990; Sapon-Shevin, 1990). Full inclusion, however, appears to have a different rationale, more

philosophical in its view of special education as a segregationist institution, and therefore more dogmatic and less compromising.

(2) In a related issue, Lipsky and Gartner (1989) are correct in criticizing what appears to be arbitrariness in the definition of some special education categories—for example, learning disability, emotional disturbance, even mental retardation (cf. Singer & Butler, 1987). This would certainly account for the great variability among the states for several disability categories (Singer & Butler, 1987) and in the very large increases in certain disabilities in the state "child count" numbers reported to the federal government, for example, learning disability. OSERS itself initiated a study of state differences in the placement of disabled children (Danielson & Bellamy, 1988), a study which concluded that "There is considerable state-to-state variation" (p. 8), though it did not identify specific disability groups.

In regard to deaf children, however, once the initial diagnosis is made, there is no problem in identification, unlike learning disability or emotional/behavioral disturbance which are sometimes difficult to assess. Deaf children are unable to hear, they communicate in a different way from hearing children, and they need specialized services that the local regular education program may find very difficult to provide, as the sections on degree of hearing loss and communication methodology in this article have shown.

If labelling and disability assessment and definition are valid issues, the solution to this problem would seem to lie in a critical examination of how children with disabilities in the troublesome categories are identified and on what basis these children are placed in an educational setting, *not* the elimination of all special education for deaf children. Supporters of full inclusion are correct in stating that the needs of children are the important features of any educational program (Stainback & Stainback, 1984). It is therefore difficult to understand how the authors just cited, in what has been called a "seminal" work on merging special education with regular education (Lieberman, 1985, p. 513), can state that "there is little evidence that classification of students with severe limitations in . . . vision, hearing, or movement of body parts is educationally useful for comprehensive educational planning" (Stainback & Stainback, 1984, p. 104).

The problem reflected in the previous paragraph, one found in much of the theoretical discussion regarding children with disabilities, is the "lumping together" approach. If the differences between blind children and deaf children or between learning disabled children and children with emotional or behavioral problems are not considered, this lends itself to a "one educational approach fits all" solution to educational problems, one that is at odds with the "individual needs" statements of educators and of public law alike.

The aggregation approach to educational reform treats all children with disabilities as a single group (Kauffman, 1993). Another approach, at the opposite end of the spectrum, is the recounting of *individual* success stories in support of a proposed educational change—Johnny O., a profoundly deaf child of 9 who has successfully integrated into a classroom of hearing children, all of whom have learned signing. It is not that these success stories are false or uninstructive; it is simply that they usually overlook or minimize student characteristics—for example, family resources—that make generalizing the story of Johnny O. to *all* deaf children very problematical.

(3) Another valid issue raised by the supporters of full inclusion—and by others, as well—has been the overrepresentation of minority children in some disability categories. For example, Macmillan, Hendrick, & Watkins (1988, p. 427) cite the "overrepresentation of black children in EMR programs."

Although this issue may argue for a reexamination of present identification and assessment procedures for disabled children, it is difficult to see how such overrepresentation supports the elimination of special education for deaf students. If minority children are being segregated into special education on the basis of race rather than on their specific educational needs, then that would seem to be the problem needing elimination.

A question was posed in the title of this article: "Who Wants To Be Excluded?" One possible answer is: families with deaf children having distinct language and/or cultural needs may wish to have their children *excluded* from an educational setting they see as restrictive, depriving them of an educational and social environment in which they can become productive citizens. These families may wish their deaf children to be *included* in a setting that encourages educational achievement and emotional maturity and social contacts, both within their own cultural milieu and beyond that milieu; and that setting may be a residential or day school. Although they do not wish their children to be excluded from contact with the predominant hearing society, they may feel it is not necessary, in the words of Sitting Bull, for "eagles to become crows," for deaf people to become hearing people. Accommodation to another culture should be a broadening experience, not an experience of deprivation and restriction; it should be a freely chosen decision, not one forced on an individual or family by educators and not an experiment with deaf children as its human subjects.

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The Potential Impact on Deaf Students of the Full Inclusion Movement

Michael Stinson and Harry Lang

In the education of special populations of students, the term "inclusion" has been used primarily in two ways. First, and most commonly, it has referred to the physical environment, that is, *where* students are placed for their education (e.g. Kauffman, 1993). Second, inclusion has been regarded as a *philosophy* that can drive the educational process for the child (Cohen, 1993; Kauffman, 1993; Moores, 1993). The discussion in this section of the paper will focus on inclusion as placement.

With respect to this educational reform movement that stresses placement, the notion that a child with such a low-incidence disability as deafness be included in the regular classroom for all educational activities implies that the child will usually be the only individual with a hearing loss in a classroom, and frequently, one of only a few such children in the neighborhood school (Kauffman, 1993). Unlike mainstreaming, inclusion does not take into consideration varying levels of placement, such as a special class within a regular school environment. Nor does such inclusion accept the wisdom of placing children with a hearing loss in a special school where all the other students are deaf or hard of hearing (Moores, 1993; O'Neill-Palmer & Modry, 1993). Thus, the notion of inclusion goes far beyond mainstreaming in its educational, social, and administrative ramifications.

Recent Policy on Placement

Historically, many forces have influenced the education of students with disabilities. Unfortunately, educational policy has been shaped as much by economic conditions and special interest groups as by sound educational research. Regardless, the purpose of policy has been consistent—to provide all students, with or without disabilities, with an education that is accessible and that promotes optimal development.

In the last twenty-five years there has been a dramatic change in educational policy regarding the provision of equal access to education for all children. During the middle of the century, large numbers of children were defined as educationally mentally retarded (having IQs of 85 or lower), and these students were placed in special education classes. This educational movement, combined with other forces, led to biased diagnostic procedures which resulted in a sharp increase in the number of Hispanic and African-American children being placed in segregated classes for educable mentally retarded students (Moores, 1993). The justification for such placement was seriously challenged by Dunn (1968) and over the next decade a major change in policy occurred, culminating in 1975 with Public Law 94-142, the Education for All Handicapped

Children Act. PL 94-142 mandated that free, appropriate education be provided to all children with disabilities in the least restrictive environment appropriate to individual needs (Moores, 1992, p. 23). With respect to implementation of the least restrictive environment provision, the Law stated that "to the maximum extent appropriate" a child with a disability is to be educated with children without disabilities (Commission on Education of the Deaf, 1988).

Research and Individual Differences

Advocates of inclusion argue that placing children with disabilities in the same location with children having no disabilities provides equal access to learning experiences. These views appeal to the naive, evoking positive feelings and support for "equality" and idealistic thinking which is largely unsupported by research data. *For educational practices to be successful, it is crucial that they be based on careful analysis of the effects instruction and other classroom experiences have on the student* (Kauffman, 1993). More research should be conducted on individual student needs and, in particular, on the best ways of meeting them. Detailed evaluation of the effects of these alternative procedures should be documented. Well-designed research in which data are thoroughly analyzed and interpreted will help professionals recognize the ambiguities and complexities in educating individuals with diverse backgrounds and learning characteristics. Only through such studies, followed by thoughtful, well-documented implementation, can significant, lasting differences be made in special education (Kauffman, 1993).

In contrast to the views of advocates of inclusion, effective instruction in special education through disaggregation of special education populations may very well be "least restrictive" and most effective for many students. Students with mobility, vision, and hearing disabilities have different special needs and the appropriate educational procedures and environment should be varied accordingly. Physically placing these children in the same location does not alter the necessity of meeting these needs in diverse ways (Kauffman, 1993). As Cohen (1993) states, it is important that decisions regarding educational programming for special populations be made on a student-by-student basis with careful consideration of the degree of specialization needed in instruction that the child is to receive; the degree of specialization needed in the child's environment; and the beliefs, values, and culture of the child's parents/family.

The Role and Purpose of Policy in the Education of Deaf Children

The implementation of PL 94-142 has had a significant effect on the education of children who are deaf or hard of hearing. In particular, the Law served to accelerate the trend of educating deaf children in day classes in public school buildings, resource rooms, or itinerant programs in public schools that are attended on a commuting basis, rather than in residential schools or day schools in large metropolitan areas (Moores, 1992).

Concerns about Mainstreaming

Even the less radical movement toward mainstreaming has evoked much concern over the widespread placement of deaf and hard of hearing students in classes with hearing peers as being inappropriate for many deaf students. Deafness is a low incidence condition and deaf students have unique communication needs. The 1988 Report of the Commission on Education of the Deaf reported that the "least restrictive environment concept has not been appropriately applied by federal, state, and local educational agencies for many children who are deaf" (Commission on Education of the Deaf, 1988, p.24). In addition, a U.S. Department of Education policy guidance paper (1992) stated that state education agencies were interpreting the least restrictive environment provision incorrectly in requiring placement of some children who are deaf in programs that may not meet their educational needs. While the Secretary recognized that the regular classroom is an appropriate placement for some children who are deaf, he emphasized that for others such placement is not appropriate.

The Department of Education guidance paper stated that in developing an appropriate education program for the child who is deaf, the program should take into consideration: a) communication needs and the child's and family's preferred mode of communication; b) linguistic needs; c) severity of hearing loss and potential for using residual hearing; d) academic level; and e) social, emotional, and cultural needs, including opportunities for peer interactions and communication (Department of Education, U.S., 1992, p.6). Proponents of inclusion push even more strongly for educating all deaf students in regular classrooms than does the least restrictive provision of PL 94-142. In effect, they are essentially ignoring research that stresses the importance of a range of placements. As O'Neill-Palmer and Modry (1993) have warned, disregarding the needs of individual students dangerously increases the chances that students with disabilities will receive an inadequate education.

The Social Realities of Schools

An important goal of education is to promote social development of the child, including effective relationships with both peers and adults. Peer relationships contribute to the development of social skills that reduce the likelihood of social isolation; to the acquisition of attitudes, values, and information for mature functioning in society; and to the promotion of future psychological health (Johnson, 1980). In terms of the social development of deaf children, the debate over inclusion calls for careful consideration of research findings in three important areas. First, the students' social experiences in classes with hearing peers should be compared to their experiences in special schools or in special day classes. Second, the extent that social development is promoted when students are placed in classes with hearing peers should be evaluated. And third, the extent that placement in a regular class supports the deaf child's development of identity and integration with Deaf culture should be considered.

Social Development

The quality of peer relationships among hearing children has emerged as a consistent predictor of maladjustment in adolescence and adulthood. Studies have involved a variety of measures pertaining to school adjustment, non-specified mental health problems, and schizophrenia (Kupersmidt, Coie, & Dodge, 1990). Similarly, it is important for all children, including those who are deaf or hard of hearing, to develop the skills to interact effectively with others. If they do not develop such skills, they will have difficulty participating in various social situations and will be less likely to be accepted by others (Hatch, 1987; Gaustad & Kluwin, 1992).

Advocates of inclusion as placement believe that placing deaf and other children with disabilities in regular classes will enhance their social integration with those without disabilities. Such placement, proponents claim, will break down the stigma and isolation that are associated with being placed in a regular class or school. They argue that being in class with hearing peers provides regular contact with these classmates. This is assumed to be the first step in the development of friendship and social acceptance (Gregory & Bishop, 1988; Kauffman, 1993). Furthermore, according to Gregory and Bishop (1988), some educators believe that if deaf students attend local schools, links with siblings and neighborhood children who attend the same school will be sustained, and these connections, too, will support the social integration of the deaf child into the regular schools.

Importantly, *research findings strongly refute these beliefs*. For many deaf students, the likely consequence of mainstreaming is *social isolation, not integration*, and this kind of social experience is not conducive to the deaf child's social development. Foster (1988), for example, reported that mainstreamed students' descriptions of their social experiences included many references to loneliness, rejection, and social isolation. Mertens (1989) found that students who had attended a residential school reported more positive social experiences than those who had been mainstreamed. In addition, Greenberg and Kusché (1989) summarized several descriptive studies of peer interactions between deaf and hearing students in integrated settings where only oral communication was used. Deaf students appeared to have difficulty relating to hearing peers, which was reflected by their more frequent interaction with the teachers and other deaf peers than with hearing classmates. Other studies on social relationships and interaction between deaf and hearing students have yielded similar findings (Antia, 1982; Farrugia & Austin, 1980; Libbey & Pronovost, 1980; Ramsey, this volume; Saur, Popp-Stone, & Hurley-Lawrence, 1987). Research has also shown that deaf adolescents have consistently felt more emotionally secure and more accepted in relationships with deaf peers than in those with hearing peers. This is generally true regardless of whether the student is in a residential (or separate day) school, or in a public school (mainstream) program, either large or small. This preference for deaf schoolmates suggests that these students regularly turn to each other to meet needs for having real conversations, developing close friendships, and having a sense of belonging (Stinson & Whitmire, 1991; Stinson & Whitmire, 1992; Leigh, Stinson, & Kluwin, 1993).

Other research indicates that, in general, deaf students who are placed in classes with hearing peers for greater proportions of their educational program may have more negative social experiences than students who are mainstreamed for some of their classes, but to a lesser degree. Reich, Hambleton, and Houldin (1977) found that students who were fully integrated or who were in itinerant programs had significantly more personal and social difficulties than did those who were in special classes for all or part of their educational program. Stinson and Whitmire (1991, 1992) found that increased mainstreaming did not appear to promote relational bonds with hearing classmates and peers. Commitment to and emotional security with deaf peers was substantially higher than that with hearing peers, even when students were extensively mainstreamed. This was true even though participation in class and school activities was more frequent with hearing than with deaf peers.

In summary, with respect to social skills development, much of the empirical research substantiates an argument against inclusion. The results indicate minimal to non-existent interaction between deaf and hearing children and adolescents and deaf students placed alone in local schools are likely to encounter persistent frustration and negative experiences that lead to poor development of social skills, little participation in activities, and much loneliness.

Cultural Considerations and Self-Identity

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 commonalities and ways of relating to others who are deaf (Padden, 1980; Padden & Humphries, 1988). These commonalities have to do with language (American Sign Language) or ways of communicating; values that may not be the same as those commonly held by hearing persons; specific primarily serving deaf students (Leigh & Stinson, 1990). Such schools provide for everyday interaction with a large number of deaf peers, have many deaf adult role models, offer links to social organizations for deaf people, sponsor special cultural activities, and support American Sign Language. These schools have traditionally been the place where children are socialized into the Deaf community and they offer an environment that is generally receptive to the growing interest and orientation to Deaf culture of many deaf children (Janesick & Moores, 1992).

The environment of the neighborhood public school is unlikely to support such interests in Deaf culture and is likely to 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, contacts in the family, neighborhood, and school are 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 who have little experience with Deaf culture may undergo internal conflict as they discover sign language and the deaf community. They may struggle in their efforts to clarify their affiliation with Deaf and hearing cultures (Glickman, 1986). Research that provides an empirical evaluation of these impressions based on counseling experiences is needed.

The Meaning of Full Access to the School Community

Even when a school district policy explicitly supports a free, appropriate public education for students with disabilities, the complexities faced by educators make "full access" difficult, if not impossible, to realize. This is particularly true for low-incidence disabilities such as deafness. For the deaf or hard of hearing student, full access implies the ability to participate in learning activities on an equal basis with hearing peers, uninhibited by communication and attitudinal barriers. Such access also means individualized support based on valid, unbiased assessment of learning needs, curricula redesigned to accommodate the concomitants of deafness, especially linguistic, cultural, and auditory considerations, and teachers whose own needs are reconciled with policy.

If such access were realized, there might be some merit to assumptions that placement of the deaf child in the regular class for all education may facilitate the development of language by provision of a "normal" language environment and by allowing access to the wider curriculum of the mainstream school (Gregory & Bishop, 1988). In practice, such access rarely occurs for the deaf or hard of hearing child. Significant communication barriers mean that while there is exposure to language and curriculum, these students are often not able to benefit.

Speechreading, Residual Hearing, and Speech

While deaf students vary in their spoken language skills, they generally do not have the competence to benefit from an orally presented curriculum in a mainstream classroom. Gregory and Bishop (1988) carefully examined a number of conversations of deaf elementary school children placed in neighborhood schools with their mainstream teacher and hearing classmates. These children did not have signing support to assist communication. The deaf children had difficulty understanding the teacher and the teacher had difficulty understanding them. In one interaction between the teacher and the child, for example, the teacher was required to make eight attempts in order to get the appropriate response from the child—a simple request to provide her last name. Each individual hearing child in the group answered the question immediately. Furthermore, the deaf students were less likely than their hearing classmates to answer questions addressed to the whole class and they failed significantly more often to answer questions directed toward them by the teacher. Other studies have also documented the difficulties that deaf and hard of hearing students face in understanding the teacher and in participating in class discussions and activities in mainstream settings (Kluwin & Stinson, 1993; Libbey & Pronovost, 1980).

Assistive Devices

A second popular approach to communication that many hard of hearing students use is the Frequency Modulation (FM) assistive device to aid speechreading the teacher. Usually, the FM microphone is worn by the teacher. However, many users of this system still have serious difficulties understanding the teacher, and when the student's hearing-aids are switched to receive the FM input, they generally cannot hear their classmates.

Educational Interpreters

A third approach, provision of an interpreter in the classroom to facilitate communication, has become widely used in recent years. Secondary level mainstreamed students use educational interpreters in over half of their classes (Rittenhouse, Rhan, & Moreau, 1989). The skills of these interpreters vary considerably and the lack of standards in public schools to ensure quality interpreting is a serious problem (Patrie, 1993; Stedt, 1992). While an interpreter can significantly increase access compared to no signed support for communication, students are still not likely to be exposed to all relevant material in courses and to encode and comprehend the material at a level similar to that of their hearing classmates. Research has demonstrated that when deaf students are presented lecture material via an interpreter they are not able to understand and remember as much information as their hearing classmates who receive the information directly from the instructor. Furthermore, this difference is maintained even when the students are provided detailed notes (Jacobs, 1977; Osguthorpe, Long, & Ellsworth, 1980). In another study, deaf students presented information via an interpreter did not comprehend and retain it as well as when the information was presented directly by an instructor using speech and signs (Caccamise & Blasdell, 1977).

One reason that deaf students using an interpreter to not appear to comprehend as much information with an interpreter may be that the demands of the simultaneous interpreting task are so great that information is lost as the interpreter tries to provide an appropriate ASL or transliterated equivalent of the message. In addition, the deaf student is likely to have reduced skill in the English language (Moores, 1987; Quigley & Kretchmer, 1982). If terms are not familiar to students or if language structure is complex, students may not understand the interpreted material. Because of the limited information in the interpreted message and the limited background of the students, they may need to concentrate so much on understanding what the teacher is saying that they are not able to effectively comprehend and synthesize the information in class or individual study. These findings and interpretations are based on research with college students and may be generalized to some extent to high school students.

In regard to elementary and middle school students, there is virtually no reliable, data-based information on whether young deaf children can receive the same educational benefits from using an interpreter as from direct instruction (Patrie, 1993; Stedt, 1992). Even with this lack of data, there are good reasons for concern that elementary and middle school students are less likely to benefit from an interpreter than high school and college students. One cause for concern is that many young students may not have developed a first language (English or American Sign Language) that provides a basis for learning and refining English skills in the mainstream classroom with an interpreter. These skills include the discourse patterns and interactional styles of English that are important for functioning successfully in American society (Delpit, 1988; Patrie, 1993).

Another concern is that it may be impossible to achieve the intended goals of activities for teaching literacy through the use of an interpreter. For example, when hearing students "read aloud" in a reading group, they are learning how to pronounce English words and they are mutually reinforcing for each other the sound-print connections; but this activity is likely to be meaningless and frustrating for the young deaf child (Patrie, 1993).

In summary, the absence of reliable knowledge of the effects of interpreting in educational settings cannot be overstated. Information on the effects of using an interpreter on aspects of learning and on how these effects differ for students at different grade levels is sorely needed. We do not know about the emotional, social, and educational needs of students using interpreters and we do not know whether interpreters can meet these needs adequately (Stedt, 1992).

Instructional Materials and Strategies

In addition to problems with using speechreading, an FM system, or an interpreter, there are other factors that can make the mainstream classroom learning environment unsuitable for many deaf children. Three important considerations are the appropriateness of the curriculum materials used (especially for development of English), the difficulty of fully participating in active-learning situations, and lack of access to the school's "unwritten curriculum" (Garretson, 1977; Lang, 1989; Quigley & Paul, 1989). Evidence indicates that most deaf students do not develop proficiency in English at the same rate or in the same manner as their hearing counterparts and that different curricular materials may be more suitable for them than those used by the hearing students. Despite the preponderance of materials used with hearing students, little ongoing research has been conducted to assess their merits with deaf students. Quigley and Paul (1989) identify as one of the pressing research needs the importance of ascertaining the relationship of communication modes and coding strategies to the development of English literacy skills, and they explain that many existing reading techniques assume the presence of an auditory language which is lacking in most deaf students. Thus, in one of the most critical areas of the curriculum (i.e., language skills development), *familiarity of instructors with deafness and its influence on learning is essential.*

In regard to class participation, recent discussions of learning have emphasized the importance of deep meaningful learning that is associated with hypothesis construction, problem solving, and conceptual organization, in contrast to memorization and retention of facts (Iran-Nejad, 1990; Pintrich, Marx, & Boyle, 1993). While this kind of learning can occur in individual seatwork, it is more likely to take place in group activities. Lang (1989) has suggested that such group activities, when there is adequate communication, may be especially beneficial to deaf students. However, the inability of deaf and hearing students to communicate easily and directly makes group participation very difficult for the deaf member, even with an interpreter (Antia, 1985; Garrison, Long, & Stinson, 1994; Saur et al., 1982).

Garretson (1977) defined the unwritten curriculum as the "non-schooling" aspects of learning—those aspects of learning that occur outside the formal instruction of the classroom. The unwritten curriculum includes information from television, radio, and peer and adult conversation (both direct and overheard). From such input the hearing child learns about social codes and attitudes, health habits, games, etc. In the mainstream setting, the deaf student has difficulty accessing this unwritten curriculum. Even if interpreters sign some of this non-school information, it is extremely limited, compared to that to which hearing students are exposed.

This deprivation is just one more way that learning and development can be significantly hindered when deaf students are inappropriately placed in classes with hearing students. Healthy communication, the fundamental substance of effective instruction, appears to be severely wanting in mainstream environments with deaf students and the idealistic notion of inclusion can be seriously challenged on the basis of research and experience to date.

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The Price of Dreams: Who Will Pay It?

Claire Ramsey

Including schoolchildren with disabilities in classes with their non-disabled peers represents the essence of a respectable and highly valued American vision of equality. This paper will discuss the vision and the legislative and pedagogical contexts that nurture it. The objective is to place deaf children and their learning needs in the larger social context and to build an argument, not solely in opposition to "inclusion" or mainstreaming practices, but in favor of deaf children and their intellectual potential, and their specific developmental and educational needs.

The term "integration" refers to a macro-level social and political objective. "Mainstreaming" and "full inclusion"—models of school structure and student placement—both aim to achieve integration in classrooms. In this paper, the cultural and political assumptions that the two models share will be highlighted, since there are several areas in which both models have failed and will continue to fail to serve deaf students. (For example, since both focus on opportunities for access to education for individual students with disabilities, neither is able to consider culture or the history of a group like Deaf people, and both fail to support their premises with theories concerning human development and learning.) However, it is worth laying out one critical point of difference at the outset. Despite the fact that the two models share cultural and political underpinnings, one difference between them is their relative flexibility on issues of placement.

While most supporters of mainstreaming view that practice as the most highly favored option along a "cascade" or a continuum (Gearhart, Mullen, & Gearhart, 1993) of placement possibilities, the inclusion model includes no range of options. Although the continuum model is misguided in several ways (e.g., separate day or residential schools constitute the least favored options, which are "rarely required but must be provided when they are the most appropriate placement" according to Gearhart et al., 1993, p. 42), this model does retain genuine options. In contrast, under the full inclusion model all students are placed in regular education classrooms. Indeed, there are expectations among its supporters that special education as a system will soon be obsolete (Stainback, Stainback, & Bunch, 1989). Within regular classrooms, a "natural proportion" (Stainback & Stainback, 1990) of students with handicaps should receive the support they need from regular education teachers and other specialists as necessary, to achieve the expectations that are set for them.

Anecdotal evidence suggests that genuine "full inclusion" has yet to be widely applied to deaf students. For deaf students, mainstreaming is still the most widely used placement option. But, what do well-intentioned hearing Americans imagine when we think about "mainstreaming"?

In contemporary times, television provides images for us. For example, a television family sit-com (now in re-runs), "Family Ties," built a story around the integration theme. The youngest child in the Keaton family, Andy, has a deaf boy, Jason, in his class. As the show begins, the two schoolmates are seated together, chatting over glasses of milk at Andy's kitchen table after school. Skippy, a teenaged friend of Andy's family, is with them. The boys have paper and crayons spread before them. It is a thoroughly cozy scene. Having Jason as a classmate is not a problem for Andy, and we are to believe that being the only deaf student in his class, without visible support (i.e., from an interpreter) will not be a problem for Jason. The hearing children and teacher are all going to learn sign language. In the meantime, Jason will be able to speechread at school to communicate with them. The only problem on the horizon is that some of the other kids in their class have made fun of Jason because he is deaf. This has made Jason and Andy sad.

Although the scene seems sweet, viewers familiar with the real implications of profound deafness would probably detect some serious problems submerged only a bit below its wholesome surface. Communication seems strangely easy. Skippy and Andy converse with Jason and with each other in standard spoken English. When Andy addresses Jason, he accompanies entire spoken English utterances with only one or two signs. Nonetheless, Jason appears to understand all that is said. Jason does not use his voice, and Skippy and Andy appear to understand him perfectly. The very real differences between Andy and Jason seem to have been eliminated with a few well-intentioned signs and fingerspelled words.

This scene illustrates very nicely the ideology of integration in which the mainstreaming, and now the proposed "inclusion," of deaf children is embedded in the United States. The television children are in one of the most symbolically secure places in American life, the kitchen, consuming nature's most perfect food, engaged in a familiar childhood activity. They are safe, at home, nourished, with friends. They are normal.

These symbols—the family, the home, childhood play, friends—are extremely powerful. To most Americans the message portrayed in this simple image is readily understood, and it packs a mighty punch. In addition, many Americans would also feel a fundamental sense of "all being right in the world" in this image of a handicapped child who lives with his own family at home, goes to school with his able-bodied peers, and plays with his friend in the normal environment of a middle-class home. This cultural scene is what most citizens and many educators and parents visualize when they think about mainstreaming and inclusion. This vision has not come about by accident, but is deeply embedded in our cultural images of children, families, and schools.

Yet, there are important reasons to examine more closely the cultural, and political assumptions upon which such a vision is built, because the lives of many deaf children who receive their educations in classrooms and school buildings with their hearing peers are not proceeding as this idealized vision would have us believe. Our society's faith in these symbols is based on a hearing, adult interpretation of life. The needs of deaf children as children and learners, and as deaf American citizens are not always well served by the television-type image that many well-meaning Americans carry in their minds' eyes.

Education for All

The original "Education for All Handicapped Children Act," Public Law 94-142, was lauded as an assurance that the civil and educational rights of handicapped citizens would no longer be disregarded. The social forces that promoted the passage of this law and its amendments (e.g. PL 101-476 of 1990, Individuals with Disabilities Education Act, or "IDEA"), have their roots in the early 1950s when the courts, in Brown v. Board of Education, upheld the right of African-Americans to an "equal and non-discriminatory education."

The statement of purpose that introduces PL 94-142 indicates that of the 8 million handicapped children in the U.S. in 1975, half were not receiving adequate education. One million received no education at all. In passing PL 94-142, Congress clearly declared its belief that these citizens could be educated, and that society, in the form of public education agencies, was responsible for doing so. The law guarantees for handicapped students a "free, appropriate, public education" in the "least restrictive environment" (LRE). In the years since 1975, the LRE notion has engendered a great deal of discussion, interpretation, and re-interpretation on topics ranging from placement decisions for students with disabilities to the fundamental relationship between "special" and "regular" education.

PL 94-142 and Problems with Deaf Education

Two aspects of PL 94-142, IDEA, and their contemporary re-interpretations contribute to their particular and potential effects on deaf students. The first is the broad ideological scope and the resulting vagueness of the legislation; the second is the power of the assumptions upon which the broad ideology is built.

In one vast sweep, Congress attempted to alleviate the longstanding educational injustice experienced by citizens with disabilities. PL 94-142 was originally enacted in response to the unjust exclusion of mentally retarded people from both education, and from opportunities for life outside of institutions. However, the broadness of the law, of necessity, left many crucial issues unaddressed. The most serious result is that the civil and educational rights of all handicapped people, which indisputably must be guaranteed and protected, get confused with the specific educational needs of particular handicapped groups, like deaf students (Commission on Education of the Deaf, 1988). Various kinds of students are collapsed into one class of person on the grounds that they have an identical need for access to educational opportunities and protection of their civil rights, even though they may have very different educational needs. Indeed, current discussions of "inclusion" often presume to speak in the interests of not only students with severe intellectual handicaps, but also deaf students, students who have been victims of rape or abuse, and others who may need individually tailored educational strategies to support them within integrated settings (Stainback & Stainback, 1990).

There are some crucial aspects of deafness—including serious problems deaf students face both as human beings and as students—that integration, inclusion, and mainstreaming and many of those trying to implement the law do not consider. For instance, the fact that deaf people can be regarded as an ethnic group rather than as a handicapped group (Markowicz & Woodward, 1982; Padden & Humphries, 1988; Johnson & Erting, 1989; Padden & Ramsey, 1993) is not at all recognized in the law, which generally takes a medical view. The fact is that a large proportion of deaf children will become members of the Deaf ethnic collectivity often called the Deaf Community at some time during their lives, generally during their school years (Meadow, 1980). Many arguments have been presented to the effect that deaf children's education should be arranged to allow for and even encourage this development (Ramsey, 1993). The law's focus on integration, however, generally works against it. The broad, medicalized definition of "handicapped" in PL 94-142 and the cultural assumptions that support it, disguise the reality of deaf students' need for a particularly Deaf linguistic, cultural, and social education which could enhance their learning *and* their ability to "deal with the hearing world" (Saur, Layne, Hurley, & Opton, 1986; Padden & Ramsey, 1993; Ramsey, 1993).

The vision of equality and freedom encouraged by the attractive notion of inclusion also fails to encourage a deep reading of the notion "restrictive." The operative notion is that restrictiveness is physical—like staircases and the walls of institutions. Like Andy's friend Jason, whom he could sit by but not really communicate with, students often appear to be in a less restrictive environment if they are in the physical proximity of able-bodied students. But, I think it is worthwhile for us to consider very carefully whether or not such "least restrictive environments" are genuinely meeting young deaf Americans' need to develop the broad-based intellectual and communication competencies (in both English and American Sign Language—ASL) that life as adult Deaf Americans requires.

Secondly, these legal documents codify the dominant American values about equality, individual differences, and the aims of education. The assumptions that underlie the law, the same assumptions at work in the television program described earlier, are the most powerful forces that promote and maintain mainstreaming and inclusion of students with disabilities, including deaf students. Two sets of assumptions interact—the first about handicapped people in general, and the second about what deaf people's educations in particular should aim to accomplish for their own and for society's benefit.

General Assumptions

The basic principle in PL 94-142 and its realizations in mainstreaming and inclusion is that segregation is bad and unfair, leading to the assumption that schooling in regular classrooms with "normal" peers is better. This assumption is built on a collective guilty conscience: images of horrible warehouse-like facilities where mentally retarded people spent their lives with no education and minimal care, and it emphasizes the dehumanizing aspects of institutions—imprisonment and separation from families and from other people. It represents a firm and humanistic rejection of the attitude that handicaps are shameful, and that people who have handicaps should be kept away from the rest of society.

This assumption rests on the belief that "separate cannot be equal." Unfortunately, this overly simplistic view has caused some people to regard integrated education as an end in itself, the accomplishment of a political and social objective, rather than the means for accomplishing such bigger goals as the promotion of the intellectual and personal development of the next generation. The latter goal is surely more crucial to both the collective and individual good than mere mainstreaming.

Yet, neither assumption recognizes that the needs, abilities and lives of deaf students are quite unlike those of citizens with severe intellectual handicaps, or those who use wheelchairs. Positive aspects of education in large regional or state-level special schools—and there are many—tend to get obscured by culturally loaded, generalized images of "institutionalization."

Related to this tendency is another assumption, which holds that categorization is necessarily bad and dehumanizing, and that recognizing differences not only violates an individual's civil rights, but is somehow bad manners. The law emphasizes that each child should be considered an individual operator in the mythic American cultural group. Current discussions of inclusion take this notion to an extreme. The inclusion model promotes a view of all students as "whole" people (Stainback et al., 1989, p. 19). Classification of students into special education categories is not only regarded as an expensive process that generates personnel and other costs for school districts, the Stainbacks argue that classification of students according to characteristics based upon intellectual, sensory, or physical limitations is not helpful for educational planning (Stainback et al., 1989). The vast civil rights objectives of the law overwhelm the subtle distinctions that must be made regarding the educational needs of children with different handicaps and developmental trajectories. This has led to the failure of the law to distinguish between different handicapping conditions. Unfortunately, while idealists may dream of radical social change, the price of dreams can be high for individual students if it means that their specific, real educational needs are overlooked.

Another crucial piece of the ideological structure that supports integrated mainstream classrooms is the subtle notion that education for handicapped students is not really an academic process but one of socialization, for which "normal" models are needed. This argument is familiar to many Deaf people, who were instructed during their childhoods that what they needed from their educations was to learn "how to get along with hearing people in the real world." Additionally, one selling point of mainstreaming as been the beneficial exposure to "the handicapped" that it offers hearing, able-bodied children. The inclusive schools movement highlights both notions. First, their focus is on social competence, and the development of "circles of friends" (Stully & Strully, 1985, 1990) for handicapped students. The second goal, creation of a supportive, unbiased diverse society, is clear in the inclusion literature as well. For example, Brown et al. (1989) suggest that "there is no better way to prepare those without disabilities to function responsibly in integrated environments and activities during adulthood than to have them grow up touching a natural proportion of students with disabilities in their schools and neighborhoods" (p.3). The outcome, in reality, is that ideals force a trade-off between these social goals of schooling and the academic goals schools conventionally set in place (Brill, 1978; Large, 1980; Ramsey, 1993). As Large (1980) suggests, "any supposed gain in academic instruction in special, self-contained education is more than outweighed by the socialization gain to a handicapped child of being in a regular classroom with 'normal peers'" (p.35). The special education of deaf students is already heavily weighted in favor of socialization to hearing norms. The movement towards integration, through mainstreaming and full inclusion, provides a perfect arena for these issues to be played out.

Assumptions about Deaf Students

A familiar set of assumptions about deaf students has also been invoked to promote their education in mainstream classrooms. These assumptions grow out of the broad cultural values outlined above and reflect hearing people's definition of deaf students' educational needs. Again, the emphasis is on assimilation, and in the context of integrating deaf and hearing students, rationales for mainstreaming like the following have arisen. The advantages that regular classroom placement can offer deaf students include:

- opportunities for relationships with hearing students, to reinforce feelings that the deaf student belongs, and is more like other students than different from them;
- the necessity to develop a wider variety of communication techniques (including intelligible spoken English) in order to be understood;

- opportunities to compete with hearing students, who work at a faster pace, with higher levels of expectation from teachers; and
- preparation for functioning independently in the hearing world (Gearhart & Weishahn, 1984, p.61).

Finally, despite the fact that it may not serve deaf students' educational needs, mainstreaming is again routinely considered beneficial to hearing students (Ramsey, 1993), so they can be "exposed" to different kinds of people. Although the assumption that this will help erode biases and stereotypes in society (Brown et al., 1989; Gearhart & Weishahn, 1984; Murphy, 1979) may be true to some extent, this result doesn't just happen by itself. Too often, deaf students pay a high price for the benefits they bring to their hearing schoolmates (cf. Stone, this volume [Ed.])

Least Restrictive Environment

Although all of PL 94-142's and IDEA's provisions affect deaf education in the United States in profound ways, the concept of "least restrictive environment," which is almost completely responsible for the current widespread practice of mainstreaming, and which underlies inclusion goals also, has been the most controversial and confusing legacy of attempts to improve educational opportunities for persons with disabilities.

The symbolic core of the laws is their emphasis on providing education for handicapped students in non-segregated settings with their able-bodied peers as much as possible. Although at this point neither mainstreaming nor inclusion are mandated, and placement of students in special classes, or residential schools, is not prohibited, one major provision is the education of handicapped students in the "least restrictive environment" (LRE).

In a legal analysis of the special problems PL 94-142 creates for deaf students, Large (1980) suggests that the law actually favors education in regular classroom settings, both in its philosophical stance against "isolation" and through its mechanism for funding education. Under the rules and regulations for PL 94-142, removal of handicapped students from regular classrooms can occur only when it can be established that such a setting is unsatisfactory. The emphasis on local funchers, administrators, and legislators make with regard to the education of the future generation of deaf Americans.

Previous Research on Mainstreaming and Deaf Students

In the period since 1975, a body of published work on the topic of deaf students and mainstreaming has appeared. The scope of this literature has ranged between analyses of litigation, statements of philosophy, reports from individual school programs, and families of deaf children about how they manage mainstreaming, and analyses of achievement tests of mainstreamed and residential school students. There have been few attempts to examine the lives of real deaf children at their mainstream schools. The kinds of fears felt in the mid-70s, that special education for deaf students would completely disappear (Vernon, 1975), are now reappearing. Yet how can we consider "inclusion" when we know that education for deaf students has not undergone any great improvements as a consequence of many years of mainstreaming.

Unfortunately, the misguided promise that mainstreaming would make possible complete integration of deaf with hearing people has also been unfounded. To the contrary, mainstreaming of deaf students appears to be quite selective, and genuine integration of profoundly deaf, signing young Americans appears to be rare (Brill, 1978; Craig et al, 1976; Moores & Kluwin, 1986; Libbey & Provonost, 1980). Ironically, the desired outcomes of mainstreaming and the criteria for selecting candidates for mainstreaming are virtually identical (Brill, 1978; Craig & Salem, 1975; Moores & Kluwin, 1986).

Most deaf students are apparently still receiving most of their education in special classes with trained teachers of the deaf, although the classes may be small, and are spread out over many schools in the U.S. rather than fewer state or regional residential schools (Allen, 1992; Ingold and Karchmer, 1987). There has been a clearly discernable paternalistic attitude that assumes that deaf people are not capable of functioning independently in the hearing world, and need hearing models to teach them how to do so.

Mainstreamed deaf students have problems in the areas of interaction and communication, even oral elementary students, who do not manage much interaction with either their hearing or hearing impaired peers (Antia, 1982; Libbey & Provonost, 1980; Saur et al., 1986). Despite the fact that one of the main justifications for mainstreaming is increased opportunities for interaction among deaf and hearing students, we cannot assume that communication and interaction between deaf students and their classmates is actually taking place (Saur et al., 1986). Whatever *is* taking place has not been understood in any detail.

To place mainstreaming in context: despite the fact that the United States is a multicultural, multilingual society, schooling as an institution has succeeded in maintaining that we are homogeneous and monolingual. The inclusive schools movement, with its de-emphasis on classifications of students into disability groups, offers the same sentimental falsehood. Integrating deaf students then, is a particularly *American* kind of education, and some of its problems derive from this. In particular, it is subject to two interacting pressures: the pressure to assimilate students for their own and society's good and the pressure to "repair" them if they have any "broken parts." In the case of deaf students, this leads to treating them as linguistic, educational, and medical emergencies.

Life at school for mainstreamed deaf students then becomes a mixture of misguided attempts at developing "language," that is, standard English (through techniques like manually coded English, simultaneous production, and slightly modified versions of the "skills" approach to language used with hearing children), and promoting socialization to hearing norms by putting deaf children in the proximity of hearing children. Yet, we know that virtually all approaches to language have had little success with deaf students. It is also increasingly questionable that deaf children benefit from hearing models for socialization. It appears more likely that what they really need are Deaf linguistic and cultural models (Saur et al., 1986).

"It's So Good for the Hearing Children": The Organizational and Social Realities of Mainstreaming

In order to increase the knowledge base about the processes of interaction that take place among deaf and hearing children who are integrated, I conducted an ethnographic study of a group of second-grade deaf and hard of hearing students in a "mainstreaming" class. This study was part of a year-long study of contexts for communication and literacy learning among deaf children in a public elementary school. A cultural-historical theoretical approach to development and learning informed the study (Vygotsky, 1987; Wertsch, 1985). The data discussed here were gathered at "Aspen School," in 1989-1990.[1] (The study, theoretical frame, and findings are reported in detail in Ramsey, 1993.)

The School. Aspen School is a public elementary school located on the West Coast. About 350 students in Grades 1-5 attend the school. Ten percent of the students are enrolled in the "Hearing Impaired Program." The program's resources include three self-contained classrooms (Kindergarten, Grades 1-3 and Grades 4-5), several teachers of the deaf, instructional assistants, interpreters, and a Communication Disorders Specialist. A school counselor is available to all students, and to the deaf students via an interpreter. The regular staff of the school, and the student body have no special preparation for having deaf children in their school, and receiving teachers in integrated settings are self-selected. (For various reasons, many teachers prefer not to have deaf children in their classes, although this is not openly spoken of.) Public events (assemblies, holiday programs, etc.) are interpreted. Every few years, depending on their workload, the deaf program staff offer a brief sign language class as a special activity, for hearing children. Accordingly, at any time, a small cohort of hearing children may know a few signs, or how to fingerspell.

The deaf children in the Grade 1-3 classroom were the focus of the study. (Two hard of hearing, non-signing second graders were not included). The focal students were three profoundly deaf second grade boys. These three, "Robbie," "Tom," and "Paul," were signers. Because they had been taught for several years by teachers who knew ASL, and by an aide who was a native signer, their preferred language for face-to-face communication was ASL. (This judgment was made by a panel of ASL-native Deaf adult judges, who viewed videotapes of the classroom, and who did not know either the children or the adults.)

Objective of the Study. The objective of the larger study was to better understand processes of academic growth in deaf students in the early elementary years. Not surprisingly, mainstreaming affected many aspects of the deaf children's school lives. Because the school was organized as an integrated setting, the deaf children and their needs as students were defined in a fairly narrow, non-academic way. The mainstreaming settings embodied an attempt to include the deaf children, and, unfortunately, demonstrated some of the problems attendant to integration.

Mainstreaming and Ideology at Aspen School. The mainstreaming program at Aspen School reflected the idealized goals of legislation that promises an education for all handicapped children. The notion that equality could be achieved if deaf children were educated in the "least restrictive environment" guided the organization of school life for the deaf children, despite the fact that the LRE notion had various meanings and carried inherent logistical problems for all the staff. For the teachers at Aspen School, the seemingly straightforward goal of treating deaf and hearing children equally was not easily achieved. In fact, most teachers responded to questions about mainstreaming by exclaiming that the practice was most beneficial to hearing children, because it provided an opportunity for them to "be with the handicapped."

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[1] The names of schools, staff, and students have been changed to guard their privacy.

Teachers of the deaf and the general education teachers defined the school, their roles as teachers, and the deaf children very differently. The teachers of hearing children, the receiving mainstreaming teachers and the administrators of the school and the school district regarded the deaf children as children who need their civil right to educational opportunities upheld. On this account, the basic components of schooling are access to school and exposure to normal, hearing models in integrated, least restrictive settings. In contrast, the staff of the Hearing Impaired Program regarded deaf children as children who need a specific kind of education, tailored to their biological status as deaf children and their incipient cultural status as Deaf Americans. The basic components of this specially tailored schooling are access to intelligible communication, and acquisition of basic skills and subject area content.

Equality and Too Much Equality. The motivation to achieve equality forced teachers to underestimate the genuine differences deaf children present. For example, Mrs. Rogers, the focal mainstreaming teacher in the study, claimed that deaf children should not be pampered, but she did not want to ignore them either. She had no idea how to alter her teaching to reach these children, other than letting the sign language interpreter share her territory in the front of the room. Her lack of preparation for teaching deaf children led to confusion. Her primary concern about the deaf children was their behavior in class, particularly since she interpreted their actions (e.g., watching the interpreter, gazing at a paper longer than hearing children did) as indications of trouble with "paying attention." Since she had no information about ways that deafness might structure engagement with learning, her accounts of the children did not contribute to improved or more accessible teaching, Rather than understanding, for example, that eight-year-old deaf children might have trouble engaging with a lesson via an interpreter for over an hour of a "chalk and talk" format, she felt that the deaf children did not get enough sleep or might not have adequate nutrition. These accounts could never lead her to re-structuring her discourse to engage deaf children, and the goal of making their educational experience "equal" to that of hearing children remained out of reach.

In addition to confusion about deaf children's behavior, sentiments about equality led to an unsavory ideological outcome at the school. Pressure to overlook differences between deaf and hearing children created the illusion that all the children at the school were genuinely equal. Accordingly, the fact that the deaf children received any "special" treatment at all (beyond the one acceptable adjustment, the interpreter) was evidence, from some teachers' point of view, that they had obtained "more equality" and unfair privileges which resulted in "discrimination" against the hearing children. The excessive "equal rights" that other teachers resented included "field trips" to a clinic for hearing and vision tests.

The point here is that the ideal of equality is not sufficient in itself to help teachers distinguish between the crucial differences that deaf children present in the classroom from the many ways that they appear to be like other children. At Aspen School, the tension between ideals and the reality of the practice of integrating hearing and deaf students was genuine and exceedingly difficult to surmount. In particular, the focus on "equality" diverted attention from the educational implications of deafness.

Consequences of Mainstreaming: Peer Interaction and Communication. Bearing in mind the ideological context of Aspen School, I turned attention to communication in Mrs. Rogers's classroom. I focused on interaction among deaf and hearing peers for two reasons. Since Mrs. Rogers followed a traditional teacher-centered style, very little talk occurred in the classroom. The richest sources of spontaneous interaction in the classroom were peer conversations during recess, art, and transitions between activities, when children were allowed to chat with others. Second, careful documentation of peer interaction allowed me to examine one of the assumed benefits of integrated education. It is often claimed that deaf children's communication abilities and social skills will be strengthened through exposure to "normal" children. Unfortunately, the reality of the classroom suggests that the practice of placing deaf and hearing children in physical proximity to each other did little to promote either social assimilation or enhanced communication.

Some hearing second graders could fingerspell and had command of a small lexicon of signs. From time to time, these children did make attempts to initiate conversations with the deaf children. However, the hearing children did not have systematic command of ASL or of any other kind of signing. Despite this, the folkloric notion that a small lexicon of basic signs exists and is sufficient for communication was widespread at Aspen School among both adults and children.

This bit of received knowledge about signing was built upon not only a diminished definition of signed human languages, but also upon a virtually non-human definition of deaf children. Hearing children's attempts at communication through signing were often mangled and abrupt. In fact, as I analyzed the functions of language in the mainstreaming classroom, it became apparent that there were two categories of language addressed to the deaf children by hearing peers, 1) unintelligible language, and 2) "caretaker-like" language.

Unintelligible language occurred for several reasons. Often, the hearing children simply made up gestures, and waved their hands in the deaf children's direction. Hearing children had learned that tapping a deaf child's shoulder would get his attention, and some of them exploited this strategy as if it were a parlor trick. When Tom, one of the deaf students, complained to Mrs. Hart, the interpreter, that the hearing children "bothered" him, he was referring to this kind of behavior. Again, Mrs. Rogers, the receiving teacher sincerely believed that the deaf and hearing children were friends, based in part on her observations of interactions which the deaf children experienced as unintelligible "bothering." Another way the hearing children created noise for the deaf students was by copying the interpreter's signing, and showing it to the deaf students. Given that peer interaction is, in theory, a potentially positive force in development, the pertinent theoretical question here is the extent to which children like Tom can withstand the bothersome and confusing forces of this kind of interaction in order to attend to school work.

By far the most disturbing finding of the entire one-year study was the identification of the caretaker-like functions of language addressed to the deaf children by hearing peers. It is worth stating bluntly here that the hearing children addressed signing to the deaf children exactly as human beings address speech to their pets. The utterances directed to deaf children were directives and evaluations, that is, the hearing children told the deaf children what to do and evaluated the deaf children's responses to commands. Some directives uttered to the deaf children consisted of comments intended to "help" them with a class assignment (e.g. "GET CRAYON."). Others were more direct management of behavior, for example, "ASK-FOR HELP," "PAY-ATTENTION," or "SIT-DOWN." Evaluations were generally negative, and often uttered using the sign NO, accompanied by a stern glare.

Identification of the limited language functions at use in the mainstreaming classroom is not an indictment of a generation of hearing children. All children are interested in other children, and the social and moral order that structures group life for children can be very strict. The point here is that the group life that took place with the deaf and hearing children did not appear to promote either social assimilation among the children or increased communication among the deaf children. It certainly did little to promote learning. The powerful social life that children can build through talk and activity simply did not exist for the deaf children in the mainstreaming classroom. Rather, the deaf children were addressed and regarded as the exotic, semi-domesticated pets of the mainstreaming classroom and the school, not as bona fide students, for whom high social and academic expectations could be upheld.

Implications

The data discussed above suggest that simple mainstreaming provides a poor solution to deaf children's perceived social and communicative difficulties at school. Does "full inclusion" offer a more promising solution? I would suggest not. As long as deaf students are placed in a situation where their perceived civil rights needs take precedence over their educational needs, they will not "count" as genuine students for whom academic expectations can be held high. In the normalization and inclusion ideologies there is a distinct lack of concern for cognitive or academic growth, which is traded away in exchange for promised social acceptance, and a more diverse integrated future world.

All the romanticism in the world cannot change the fact that deaf children need a specific kind of education. They need an education through a medium that is accessible and intelligible to them, with which they can engage. Imagine an "inclusive" class organized so that profoundly deaf signing children had full access. All teachers, children, and other staff would need to sign well. They could not depend on a few "basic" signs, but would need a diplomat's level of fluency in ASL, including an automatic, native-like ability to invoke the pragmatic features that organize information, and structure discourse. Teachers would need to be excellent practitioners, and would also need to know a great deal about the intellectual lives of deaf children and adults. (Would such a setting engender a belief in "too much equality" as the very minimal program at Aspen School did?) Since the kind of specifically tailored program needed to bring literacy, other basic skills, and content-area knowledge to deaf children has rarely been arranged in self-contained or residential school classrooms for deaf children, it is hard to imagine how such a setting could be arranged in integrated settings.

Conclusion

Those who place their faith in mainstreaming, inclusion, and integration need to respond to serious questions. What is the social contract of school? What does school promise to deaf children and their families? If the social contract is to simply allow deaf children through the school room door, then any kind of integration would satisfy the terms of the agreement. However, if the promise of school is to help children develop and learn, and to provide an education that respects who children are when they enter school, and what they can be if their potential is fully developed, then the focus of attention must change. Not only do we need to maintain a range of placement options, we must insist that educators be allowed to make decisions and plans based upon well-grounded theory and knowledge of the development of deaf children, not on a social or political position about the diversity of a future world.

As part of the ideological tussle to establish its role, deaf education must also consider serious questions about truly educating the next generation of Deaf Americans, a group that will, like generations past, live in the real world of English print, hearing people, and Deaf signers. The field of deaf education is on the brink of taking a step that mainstreaming and full inclusion advocates have been able to avoid. With the introduction of a bilingual-bicultural model of deaf education, there is now a trend in the direction of a theoretical stance toward human development and learning that can consider both the history of groups and their culture. This sophisticated stance will unfortunately never have a place in the inclusive schools movement. With its narrow focus on social acceptance and friendship, the latter cannot consider any theoretical questions about human development or culture. In contrast, deaf education is now positioned to do just that. Current examinations of the development of English in signing deaf children (Padden, in press; Padden & Ramsey, 1993; Ramsey, in preparation; Sterne, 1993) suggest that classes of deaf children and their teachers are sites where we can not only increase our knowledge about the developmental trajectories of deaf children, but also can illuminate important questions about symbolic (including literacy) development in schooled children in general.

Parents, teachers, administrators, Deaf people, and researchers who want to advance deaf education face a dual task. We must simultaneously argue in favor of maintaining the varied placement options available to deaf students, and work to improve them all. Although the inclusive schools movement may seem to be absorbing a great deal of activist energy at the moment, it is possible that its influence will soon peak (Fuchs & Fuchs, 1994). At this moment, we should consider the wisdom of John Dewey, who, during his time, also worked to bring a new theory to fruition, and hence, to advance education. Dewey said, "There is always the danger in a new movement that in rejecting the aims and methods of that which it would supplant, it may develop its principles negatively rather than positively and constructively. Then it takes its clue in practice from that which is rejected instead of from the constructive development of its own philosophy" (1938, p. 20).

Simply responding vigorously to the full inclusion model will not improve deaf education, since, despite the amount of attention mainstreaming, and now inclusion, have received, these strategies are not the ends, but merely the means. There is a growing body of evidence that the promises of schooling for deaf students cannot be kept if these students are subjected to *either* integrated or segregated education which has not been designed with their developmental needs in mind. Continual struggles over the re-interpretation of "equality" and "least restrictive" simply keep attention away from the tragic ways that American schools have broken their promises to young Deaf Americans.

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An Interpreted Education: Inclusion or Exclusion?[1]

Elizabeth A. Winston

It is a common misconception that inclusion through interpreting is the solution to improving the education of deaf children. Yet even in an ideal educational setting, there still exist constraints on the types of classroom activities in which deaf students can be effectively included. Furthermore, simply providing interpreting does not adequately address the educational and communicative requirements of deaf children in classrooms. The myths about interpreting need to be exposed before policies of inclusion through interpreting can be considered rationally. In this paper, two important myths are addressed: 1) the myth that interpreting is a simple substitute for direct communication and teaching; and 2) the myth that an interpreted education is an "included" education. A section concerning the nature of interpreting and misunderstandings about how it works will be followed by a section on the nature of classrooms in which deaf students—supposedly included because of an interpreter—are in fact excluded by virtue of inevitable constraints on the interpreting process. A third myth not addressed in this paper is that of the availability of qualified interpreters and the possibilities of preparing such interpreters to meet the needs of full inclusion. The nature of interpreting, the nature of education, and the lack of qualified interpreters all combine to make a policy of full inclusion for deaf students unacceptable as a policy that purports to encourage and support education for everyone.

The Nature of Interpreting

One of the primary tools for implementing "inclusion" for deaf children is interpreting. Interpreting, whether it be signed, oral, or cued speech, is the channel through which deaf children are assumed to gain equal access to the world of education. It is true that interpreting can provide adequate access to much informational content; however, an interpreted education is a second-hand education. No matter how skilled the interpreter, the teacher, and the student, it is still the interpreter who processes the communication between the student and the teacher.

This processing always affects the communication in some way. Although there exists a widely held belief that an "interpreter signs exactly what the teacher says," interpreting theory and interpreters themselves long ago understood the fallacy of this statement. The very process of taking in material presented in one language, then conveying this material in another language or form makes it *not* the same. Interpreting in public school classrooms provides an important service only for those deaf students who are linguistically, socially, and academically ready to benefit from it, who are placed in academic settings with excellent interpreters, and whose classrooms have been adapted to meet their visual needs. A subtle but important difference to understand is that deaf students are not receiving an education through interpreting; rather, they are receiving an interpreted education, an education processed through the channel of the interpreter before arriving at the student.

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[1] Parts of this paper have appeared in Winston, 1992 and are reprinted with permission of the Conference of Interpreter Trainers (CIT).

Constraints on Educational Access/Inclusion through Interpreting

Before choosing a policy of inclusion for deaf children, the goals of inclusion must be clearly understood. Many of the goals of inclusion cannot be achieved through an interpreted education due to the inevitable constraints of interpreting. These constraints are a given when interpreting is used; they cannot be removed and should not be ignored, because they directly affect access to classroom activities for deaf children.

Constraint #1: One must first have linguistic competence before benefiting from interpreting.

A major constraint on effective interpreting is that each person in the communication setting must already have a language. Many believe that exposing deaf students to language through interpreting will help them achieve language skills. However, interpreting cannot be effective if the deaf student does not have a language already in place. Language acquisition requires interaction and direct communication; interaction occurring through an interpreter is indirect. Anyone who has experience working through an interpreter is aware of how remote one feels from the user(s) of the language to which one has only this indirect and limited access. Thus, in this situation, deaf children who do not already have a language must attempt to acquire one through less than ideal means. In addition, they are expected to acquire that language while also learning class content.

To appreciate how discordant it feels when the language used by the interpreter is *also* new to you, imagine a scenario in which you are expected to learn Russian and computer technology at the same time. Adults would protest the basic unfairness of such an expectation. "Including" deaf students who are not yet competent in either ASL or English is equally unfair and exclusionary, yet educators and parents alike tend to accept the myth that children can somehow accomplish this arduous, if not impossible, task. Even the U.S. government implicitly recognizes the difficulty of such a task by allowing children who are non-native English speakers to be provided with an educational setting that accommodates their linguistic needs until they are ready to compete in an English-only classroom. Similarly, deaf children should not be expected to succeed in inclusionary settings until they are linguistically ready to process the language presented by the interpreter. Interpreting cannot be effective until *after* the linguistic readiness problem has been conquered.

Many people believe that providing an interpreted education provides a deaf student with exposure to English. As has been demonstrated, interpreting cannot provide a language model for a child's acquisition of any language, neither English nor any other. Interpreters using English signing systems provide only a rough reflection—a sketch—of English. Someone who already knows English (an adult, for example) can fill in the blanks using their "cloze" skills and background knowledge. Someone who does not yet know English cannot fill in the gaps with linguistic knowledge not yet acquired. Again, imagine that you are expected to learn Russian from telegrams. You would be expected to learn the language without having been provided many important parts of the language on a consistent basis. These English signing systems provide few of the paralinguistic cues that English speakers rely on for understanding conversation—cues such as pacing, intonation, and stress are either deleted or bear little resemblance to what we expect in English. Due to time and pacing constraints, an interpreted message deletes even more linguistic and paralinguistic features that English speakers rely on: pronouns, prefixes and suffixes, for example. Exposure to such incomplete messages does not provide exposure to English.

In addition, interpreters using these systems are encouraged to add ASL features such as directionality and location whenever possible. Inclusion of such features results in a mixture of languages and codes that cannot be described as a "model" of any language, and certainly not English. Thus, these coded systems are far from reflecting English, the language intended to "include" the students in regular classrooms. This failure to reflect English is not a result of any inadequacy in the interpreter's skills; rather, it is a result of constraints related to the process of interpreting itself and of trying to map a spoken language onto a signed code.

Constraint #2: Interpreting affects all social interaction by adding a third party.

Another factor to consider when "including" a deaf student is that the deaf student's experience is completely different from his or her hearing peers'. The deaf child is always "unique" or different and never in the majority. The deaf child is "joined at the hip" to an adult, a situation which precludes regular interaction with both peers and teachers. An interpreted education means that every interaction includes three people, not two: by definition this excludes the deaf child from normal peer interaction. It is not normal to have an adult around when you ask someone for your first date; it is not possible to whisper to another classmate through an interpreter in school. Thus, the "included" deaf student is actually "excluded" from normal peer interaction and from normal interaction with teachers.

Deaf students are sometimes "included" via interpreting in order to learn about the hearing world in the classroom. In many cases, the student is expected to sit and watch, but is not really expected to perform at the level of other students in the class. This "inclusion" is intended to provide the student with the experience of the "hearing" environment without the pressure of performance.

Because interpreting always occurs a few words behind any actual interaction, deaf students relying on interpreting are at best always a few words behind the environment. Thus, they are not learning about how to fit into the hearing world and its interactions, they are learning about how to "just miss" all those interactions. This type of interaction and learning is not conducive to building confidence and self-esteem; rather, it leaves students feeling lost and inadequate. The myth that interpreting enhances interaction and socialization for deaf children must be debunked. It can never replace the normal interaction that occurs between two people on a direct, one-to-one basis. This kind of interaction is a crucial and normal part of any educational experience and is, ironically, a goal of inclusion that is completely circumvented by the process of interpreting.

Constraint #3: Interpreting places additional visual processing and cognitive demands on the deaf student.

Another constraint on interpreting in the classroom is that it adds to the visual processing demands on the deaf student. Often the visual input of interpreting occurs simultaneously with other visual input, such as demonstrations, writing on the board, or movies. At these times, interpreting does not provide access; rather, it creates a barrier to access by adding a competing visual message. The constant re-focusing between the interpreter and all other visual input is at the very least fatiguing to the eyes of the deaf child.

The Nature of the Classroom

The typical classroom environment is designed to accommodate learning through both visual and auditory channels. The deaf student, of course, has access to only one of these channels. Even with an interpreter, there are many parts of an auditorily-centered classroom which cannot be made accessible. These are discussed in the next section of this paper.

The teacher's style is also of great importance in an interpreted setting. The interpretability and accessibility of classroom activities is influenced by the teacher's willingness to work with an interpreter. Although it is the interpreter who transmits the accessible form of the message, the teacher must still *communicate with the student*, in addition to teaching the student via interpreting. This is a task that requires adaptations of most teaching styles.

Learning takes place within the total classroom environment. Interpreting can provide only a part of this environment for the deaf student; much within the environment is not available. The deaf student is required to receive and process all information in a completely different fashion from that of the hearing student. This is required during any interaction which is not a one-to-one interaction with another signer. The deaf student has little access to this one-to-one interaction except in contained classrooms; inclusion policies would eliminate this normal learning environment altogether. The dubious merits of a policy of inclusion need to be weighed carefully against the benefits of direct one-to-one communication in contained classrooms. It appears that the question of a least restrictive environment (LRE) has not been considered carefully enough. The only way to determine the attainment or lack of LRE is to view the environment from the deaf student's perspective; no other perspective can provide an accurate assessment of the setting. It is necessary to observe and analyze those placements which succeed in order to learn which types of setting are truly least restrictive. It is also necessary to learn from deaf teachers of the deaf who understand the visual needs of deaf students. Observing deaf teachers interacting with deaf students provides a much clearer understanding of what a least restrictive environment means when learning is visual.

Accessibility to an Education through Interpreting

There exist factors in the classroom which cannot be effectively accessed via interpreting. Several types of presentation styles occur in classrooms; these vary among teachers and within any one teacher's classroom, but several styles appear fairly consistently through many classes. These include lectures, question-and-answer periods, and independent work. Types that vary somewhat include reading aloud with the class and group work. There are many other types of activities as well. The five types discussed here are simply some examples that demonstrate some serious barriers to inclusion through interpreting.

1. Lectures. This type of presentation has generally been considered accessible through interpreting, given adequate language and academic skills in the student. The deaf student receiving information during this type of presentation is required to perform only one task—that of processing information presented visually through the interpreter. (The question of the practical difference between visual and auditory processing is not considered here. It is, however, a very important consideration to make in terms of an included placement.) This type of presentation is used in different amounts by different teachers; seldom does it continue through an entire class.

A lecture-style class may seem easily accessible to a deaf student through interpreting. The hearing students in the class access most of the information through their ears, listening to the teacher; it may seem to follow that deaf students should be able to access the same information by "listening" through their *eyes* via interpreting. However, a closer look at lectures reveals that the teacher not only talks, but also presents demonstrations that require the students to watch an activity or to read notes from the board while listening to the teacher. Any activity or presentation that requires the hearing students to use both their eyes and ears simultaneously is an activity that partially excludes deaf students. Although interpreters can interpret the spoken message, they cannot re-do the demonstration; nor can they effectively present information while the teacher is demonstrating.

An important aspect of many lecture-style classes is that students take notes while listening. This task is difficult for deaf students—they must choose whether to watch the interpreting or to write the notes. Full access is rendered impossible by this choice. Some schools attempt to remedy this problem by providing note-takers for deaf students. However, note-taking is in itself a learning activity; it provides reinforcement for what students learn. Deaf students, by being provided with notes from others, are excluded from an activity that helps most students learn. Lectures, in other words, while seemingly representing the most interpretable and accessible teaching method, actually present a number of barriers to inclusion for deaf students.

2. *Question and Answer Sessions.* Teachers often use question and answer sessions (Q&A) for presenting information. Two basic types of Q&A often occur—the kind that is based on the lecture and the kind that is based on paperwork, such as homework, tests, or information from reading materials. Effective interpreting for either of these is dependent on the teacher's style; in order for the deaf student to participate, the teacher must control the speed of the interchange to allow for the extra time required for interpreting. If the deaf student is to participate, this time lag cannot be ignored. An interpreter can ask the teacher to allow for this time, but such requests do not usually have any lasting effect on the teacher's style. The teacher must be willing to monitor and adjust his or her style in order for the deaf student to participate. An interpreter can shorten this time and can even occasionally anticipate questions or answers, but this is rare. Anticipation can also lead to incorrect interpretations, causing more confusion.

Given this general difficulty with interpreting Q&A, the two types mentioned above present differing degrees of interpretability and accessibility for included students. Q&A based on previously presented information requires only that the student recall this information from memory. This type is accessible to both the deaf and hearing students. Each must process the question and try to recall the answer (that is, if we wish to ignore the fact that the deaf student is always behind because of the interpreting process). Q&A based on paperwork presents a different situation. Whenever the deaf student is required to retrieve information from a written source while simultaneously receiving information from a signed source, the student is immediately excluded from part of the information. The hearing students perform the task of reading and listening at the same time, using their eyes and their ears simultaneously. An example of this during a classroom observation (Winston, 1992) was the correction of homework papers in a class.

The students were expected to correct their own answers by reading their papers and listening to the correct answers being read by the teacher. The deaf student in this situation was expected to watch the interpreter for the correct answer, find the matching question, and correct errors in a previously written response. It is physically impossible for any deaf student to perform these tasks simultaneously.

Effectively interpreting this type of presentation requires either a change of style by the teacher or some sort of deletion in the information conveyed to the deaf student. The change in teacher's style might include writing answers on the board, waiting for the deaf student after each answer, or using an overhead. If the teacher does not change her style, the interpreter must choose between simply continuing to sign, whether the student is watching or not, in order to keep up with the teacher, or deleting the bulk of the information and providing only the most vital information—the question number and the answer perhaps, and waiting for the student to correct the paper before proceeding to the next question. This deletion results in a loss of most of the information that teachers provide when they explain the questions and answers. Either choice by the interpreter results in a situation which is less than that provided for the hearing students. This type of information presentation includes deaf students only to the extent that the teacher's style can be adjusted.

3. Independent Work. This type of activity appears on the surface to be ideal for the deaf student. Little interpreting is required, and the student can have one-on-one (although actually two-on-one) interaction with the teacher. However, analyzing this setting more closely shows that it is not the ideal it appears to be. It is true that the work at the desk is comparable to that of the hearing students. It is usually visual for all. The difference is in the incidental information which is being provided throughout this independent work time. This incidental information includes such things as interruptions by outsiders, during which the hearing children can continue working while overhearing the interruption. Although it may seem that not having to pay attention to this type of interruption would be helpful, it is this type of interaction that provides the hearing children with models for language use and social interaction in everyday settings. They learn from this how to interact appropriately in the hearing world. Other incidental information includes comments such as 'Bless you,' when someone sneezes, teacher's jokes with one or another student, and even brief language lessons. Once, during a classroom observation, the teacher asked a student if he knew what '*Por favor*' meant. The teacher then explained it, providing information about Spanish that could be overheard by the entire class. This type of interaction and exposure to language use in natural settings is one of the stated goals of inclusion. Yet it is often during independent work time that interpreters are taken from classrooms or are asked to perform other duties.

Even when an interpreter is present, such situations are more exclusive than inclusive. If the student is working at his desk, it is necessary to interrupt that work to interpret the information or the interactions. It is not possible for the deaf student to continue working and "overlook" this incidental information in the same way that hearing students overhear it. This constant interruption is not usually helpful to the student in terms of completing desk work. The other choice is for the interpreter to not interpret this type of information, depriving the student of this important exposure to language and socialization. During one classroom observation (Winston, 1992), the interpreter usually interpreted when the deaf student looked up, but not otherwise. The student was aware that he was not required to watch the interpreter at this time unless he wanted to. He was, however, being forced to decide between two aspects of the classroom, a choice which hearing students are not asked to make.

4. Reading Aloud. This type of presentation does not occur in all classes, but when it does, it can present major problems for interpreting. Reading aloud forces the deaf student to choose between watching the interpreting or reading from the book and ignoring the interpreter. The student cannot, as is expected of the hearing students, read along and listen to the reader at the same time. Either choice presents problems. If the student watches the interpreting, the signed message does not match the reading—never in form and often not fully in content. If the student chooses to read, any incidental information the teacher adds to supplement the reading is missed. Even if the interpreter interrupts the student to interpret this, the information may not be relevant to the section that the student is reading at the time of the interruption. This type of presentation is not effectively interpretable.

5. Group Work. Group work occurs frequently in classrooms. It is often difficult for the group to communicate with the addition of an interpreter and the processing time that constrains interpreting. For this reason, deaf students are often left out of these discussions, segregated from the start to work alone with the interpreter/aide. Even if the deaf student participates in a group, because he or she does not communicate on an equal basis with the other students, this inclusion is often superficial and physical. This type of activity can be made more accessible depending on the dynamics of the group and the willingness of everyone to work at communication. However, for the reasons indicated, it is always less equal for the deaf student than for the hearing students.

As demonstrated by the discussion of these five typical classroom activities, the type of classroom presentation has a direct bearing on the accessibility of classrooms and on the inclusion of deaf students. The deaf student's visual and learning needs must be given the highest priority, with the understanding that meeting these needs through the use of interpreting results in an interpreted, second-hand education. Interpreting does not remove barriers to inclusion; it often brings additional barriers with it that are easily overlooked by everyone but the deaf student.

Concerns About the Availability of Qualified Interpreters

The decision to include deaf students through an interpreted education has been the central point of this discussion thus far. However, another very important concern must be the nationwide lack of skilled, qualified interpreters to work in educational settings. Given the nature of interpreting and the nature of classrooms and interpreted educations, it is clear that, even with all the factors being ideal, inclusion can succeed, at best, in providing an alternative educational experience. When all factors are not ideal, placement in an "included" setting for the purpose of providing an education must be seriously questioned. The skills, knowledge, and experience of interpreters working in educational settings are often much less than required to provide even *minimally* satisfactory interpreting for deaf students.

Interpreters in educational settings should be more skilled than community interpreters, but most often education attracts inexperienced, unskilled interpreters. Bernhardt Jones (1993) presents a thorough review of the history of interpreters and interpreting in education. He investigates the status of educational interpreting in three mid-western states in order "...to address some of the weaknesses of the notion known as 'full inclusion' of deaf and hard of hearing elementary and secondary students" (p. 123). He comments,

> Without qualified interpreters, these children are not allowed access to the mainstream. Without qualified interpreters, "full inclusion" is a myth for these children. (p. 123).

Because the effect of interpreting on education is so poorly understood, interpreters are often hired without consideration of their skills and qualifications. School systems all over the country hire interpreters without even evaluating their signing and interpreting skills, let alone ensuring that they meet the standards and qualifications set forth in the *Model Standards for the Certification of Educational Interpreters for Deaf Students* that has been presented by the Registry of Interpreters for the Deaf (RID) and the Council on Education of the Deaf (CED). These school systems require little or no certification or other evidence that interpreters are qualified to be the main access to education for deaf students. Thus, poor interpreting exacerbates the inherent problems associated with interpreted educations.

Conclusion

The discussion of the meanings of LRE and of inclusion must be re-examined in light of the constraints of interpreting and the limits to accessibility for deaf students in any system of "inclusion." Education in an included classroom is a learning experience that, for the deaf student, is different from that of hearing students from the moment the student enters the school until the moment the day ends. It is not, as has been assumed, the same type of experience with the simple addition of an interpreter and sign language. This difference is not merely a superficial difference, it is a difference of both quality and quantity.

From the original focus of this discussion—interpreting as a tool for providing inclusion of deaf students in regular classroom settings—to the broader question of LRE and the education of deaf children, it is clear that the primary focus of study and research on this issue must be the deaf student's experience in the setting. With this perspective as the primary one, the question of the appropriateness of the environment to visual learning becomes salient. The possibility of providing this visual learning solely through an interpreted message must be seriously questioned and honestly answered. As long as inclusion means an interpreted education for deaf children, a policy of full inclusion as a means of providing equal access to education presents a true paradox: being included in an interpreted education equals being excluded from a full, equal education.

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Replacing Myths About Deafness[1]

Oscar P. Cohen

In the following discussion I will endeavor to explain why I think mandated full inclusion for all deaf children is wrong, and why the continuum of alternative placements must be maintained.

The Normalization Principle

It sometimes seems as though rhetoric and value judgments have taken over to such an extent in the literature promoting full inclusion that a reasoned and informed consideration of the real needs of deaf children is obliterated.

For many advocates of full inclusion, the guiding tenet is the "normalization principle" of making available to disabled persons conditions as close as possible to the norms and patterns of mainstream society. This position, which emanates from a relatively small and insular group that advocates primarily for children with severe intellectual disabilities, The Association for Persons with Severe Handicaps (TASH), presumes to speak for all disabled students (Fuchs & Fuchs, 1994). Their goals call for the abolition of special education as a means of enhancing disabled students' social competence and of bringing about changed attitudes in teachers and non-disabled students towards disabled children (Gartner & Lipsky, 1987). It is noteworthy that social acceptance, and not academic realization, appears to be their primary measure of success.

Most would agree that full access to communication among peers is crucially important to the cognitive and social development of *all* children. However, this process occurs in entirely different settings for deaf and hearing children. Face-to-face spoken communication is problematic for many deaf children, even after years of speech and lipreading training. Most deaf children cannot and will not lipread or speak effectively in regular classroom settings. This is a result of biology, which all the well-wishing in the world won't change. For these children, full access to communication—and therefore full cognitive and social development—includes the use of sign language. Thus, to equate the means of meeting the needs of deaf children to those of meeting the needs of developmentally disabled children is misguided.

Those who espouse the "normalization principle" as the rationale for full inclusion for all deaf children simply do not understand the role of the language and culture shared by most deaf persons. Contrary to the claims of those who champion "normalization," placement in a school setting that lacks appropriate communication with peers and adults creates an *abnormal* and impoverished milieu. It is naive to believe that public schools will develop an environment in which everyone in the school—children, teachers, secretaries, the school nurse, administrators, cafeteria workers—will be able to communicate directly and proficiently, according to the learning styles and needs of all deaf children.

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[1] A slightly different version of this paper appeared under the title "'Inclusion' should not include deaf students" (Cohen, O., 1994).

The Manipulative Use of the Term 'Segregation'

Those advocating mandatory inclusion often use the term "segregation" when referring to special schools or classes indicated in IDEA. In the United States, "segregation" implies legally imposed isolation and has strong associations with the enslavement of Africans and its aftermath. As such, it carries a powerfully negative tone. "Segregation," as it occurs when some disabled children are placed in special classes or schools, may be negative or it may *contribute to positive development*. For this reason, the more neutral term "alternative setting" better conveys the concept of a special educational placement. Using the term "segregation" to describe alternative placements for deaf children is manipulative, in that it suggests values antithetical to professed ideals of equality and democracy. (According to the logic of full inclusion advocates, our historically Black colleges should be closed!)

The Americans with Disabilities Act (ADA) provides the basis for an argument by many that children with disabilities have a civil right to attend school in general education settings. Those who would mandate full inclusion—ostensibly in order to safeguard a right—are actually denying the rights of others to attend school in alternative settings.

We must ask ourselves the real appeal of mandatory inclusion. Does it serve deaf people, or is it simply a way to further the great American myth that we're all created equal? To treat all children as though they were the same is not democracy; it is injustice.

Social Competence and Acceptance

The goal of many advocates of full inclusion is to enhance disabled students' social competencies in order to promote acceptance by their non-disabled peers. A leading advocate of the full inclusion movement, TASH, is primarily concerned about children with severe intellectual disabilities. Social competence and acceptance may mean different things to different groups. In contrast to the situation for most mentally retarded children, it is possible for the majority of deaf children to form full, purposeful, intimate relationships with their peers, deaf or hearing, provided that they share a common means of communication. Deaf children neither want nor tolerate relationships that are patronizing, subordinating or superficial. Notwithstanding the honorable intentions of full inclusion advocates, gestures of benevolence by persons who neither possess the requisite communication skills nor desire to communicate fully and effectively with deaf children are not acceptable to the majority of deaf children and their families.

Quality Education and the Provision of Support Services

The development of communication competence is the primary need of most profoundly deaf children. There is a clear predilection in the current literature supporting the work of Vygotsky, who emphasizes that learning is dependent on interaction and cooperation with one's peers (Vygotsky, 1978). The frequent response from full-inclusion advocates to questions related to the unique needs of deaf children is that speech or sign language interpreters will be placed in classrooms. This position is simply not responsive to the research on early language acquisition in general and on deaf children in particular (see Winston, this volume).

There is a dearth of both qualified educational interpreters throughout the United States and research on the effectiveness of educational interpreters for meeting the emotional, social, and educational needs of deaf students. For example, does the student feel self-conscious with an interpreter sitting next to him or her? What proportion of spoken classroom interaction actually gets interpreted? How does the interpreter's presence (e.g., Cohen, L., 1994) affect interactions with classmates—sharing gossip, jokes, secrets? What impact does interpreter lag-time have on a deaf student's comprehension and achievement? These and myriad related questions must be addressed before social policy affecting the education and development of deaf children is determined, lest irreparable harm be done. Simplistic solutions to complex problems are not helpful.

As far as profoundly deaf children are concerned, full inclusion advocates have no grounded, informed theoretical framework to bolster their case. Their argument is based primarily on an image, not unlike the melting pot theory, lacking legitimacy and credibility.

Conclusion

Deaf children are as diverse as any other group of children. Their different individual needs suggest that they will be best served by a variety of settings, including the opportunity to attend inclusive schools, *when appropriate*. However, the full inclusion, one-size-fits-all approach, even with its promises of support services, is naive at best, and irreparably harmful at worst. Complex problems do not have simple solutions, nor can an emotionally-based appeal to old myths substitute for an informed appreciation of the culture of deafness.

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Mainstreaming and Inclusion: A Deaf Perspective

Rachel Stone

The topic of this paper is mainstreaming and inclusion from the perspective of deaf people in the United States. First, some words about terminology. I will be using the term "deaf" rather than the term "hearing impaired" since "deaf" is the term preferred in the American deaf community and the one I am accustomed to using. "Hearing impaired" is a term used primarily by professionals. It first appeared in professional books and journals in the 1970s as a label for individuals having any degree of hearing loss. Deaf people who are members of the deaf community, on the other hand, identify themselves as "deaf" regardless of their degree of hearing loss. In this paper, I will make a distinction between the "deaf" population and the "hard of hearing" population, because each tends to have a different point of view on many issues.

"Mainstreaming" is a term that has been used in publications since the "Education for All Handicapped Children Act" (Public Law 94-142) was passed in 1975. The term itself was not officially used in the Act. Nevertheless, the Act has been interpreted to convey the message that any handicapped child is entitled to a proper education, if at all possible, in the "mainstream" of public education, alongside non-handicapped students. The Act entitles each handicapped student to an individual educational plan, whether the student will be in the classroom with non-handicapped students or not.

"Inclusion" is a newly used term. Advocates of full inclusion seek the merger of special and general education into one inclusive system in which educational arrangements are designed to include all deaf and hard of hearing students, as well as any other handicapped students (regardless of the severity of the handicap), with non-handicapped students in regular classrooms. According to this philosophy, a variety of educational approaches would apparently be used in an effort to provide adequate learning experiences for all deaf and hard of hearing students, regardless of the severity of their hearing loss, in classrooms with hearing students.

My overall perspective on inclusion is that although some deaf and hard of hearing students may benefit from being educated alongside hearing students, not all students can benefit exclusively from that kind of experience. There are some compelling reasons, in other words, to keep the option of special, separate placements for deaf and hard of hearing students open. We need to look closely at a number of factors to see whether the large majority of these students would benefit or be hurt by mainstreaming or inclusion options.

I will explain briefly what I have learned from other deaf people—deaf people who, unlike myself, were integrated into local public schools and did not attend a residential school for deaf children. In the years before PL 94-142 was passed or the term "mainstreaming" was used, many deaf children attended local public schools either because the schools for deaf children were some distance from their homes or because they had no choice and simply had to attend the school closest to their home. Often these schools provided no special teachers or services for deaf children so the children simply had to cope as best they could. Often they had to sit in the front row, near the teacher, trying to catch whatever they could by lipreading. They missed quite a bit of information, of course, and responded to the frustration by putting their noses in their books. Since they missed out on so much in the classroom, they had to work twice as hard on their school work at home, seeking the help of their parents so that they could get by. These deaf children generally had to work twice as hard as their hearing peers.

In addition to the difficulties these children experienced in school, many of them had no opportunities to meet deaf adults until they completed their schooling. In fact, most deaf children in integrated settings did not even realize deaf adults existed. This fact led to various ideas about what would happen to them when they grew up. Some deaf children thought they would become hearing when they became adults; others thought they would die or just fade away somehow since they had never had a deaf adult role model (Harris & Stirling 1986). Even today, deaf children who go to public school with hearing children and have an interpreter still find themselves alone—the only deaf child in a class of hearing children. Perhaps there are a few deaf children in their school in different grades and classrooms, but there is little chance for them to interact. These children are often left out of activities and conversations with their peers. As a result, they experience a sense of isolation.

Once again, I would like to comment on terminology. Schildroth (this volume) prefers to use the term local rather than public to describe the schools into which deaf children are mainstreamed, since residential schools themselves are often public schools. But we deaf people use the sign HEARING for local public schools attended by hearing children. We translate that to mean both "hearing" and "public." I prefer to use that sign and, since it translates as public, it may appear to contradict Schildroth. I am, however, referring to the same schools he has referred to in his paper.

Another term I would like to comment upon is the word "normal." Frequently, people talk about the differences between normal people and other kinds of people. I am deaf and I think of myself as a normal person. I have never considered myself a handicapped person. We deaf people are the same as other normal people; the only difference is that we can't hear. It is important to educate the public so that they see deaf people as normal.

Problems Confronting Mainstreamed Deaf Students

I have listened to what deaf children who are mainstreamed have to say about their experiences and I have read articles written by deaf people about mainstreaming in publications on deafness. My judgment is that these deaf students have had some very bad experiences, whether they realize it or not. In all their stories, a common theme emerges. The school has provided little or no orientation to deafness for the hearing children, the hearing teachers, and the deaf children. The school has simply put the deaf child into a class without accurate information and without orientation materials that might help the teacher and students be prepared for what they will encounter. Consequently, negative attitudes develop and the deaf child is perceived as an alien being that has entered their world. Fear develops because the teacher and the hearing children are not sure what they should do with the deaf child. Often the child is simply neglected. Thus, it is vital to the educational process for the school to provide an adequate orientation when a deaf child is mainstreamed. If done properly, such a program will help the hearing children to feel more comfortable accepting the deaf student in their class. They will begin to understand what they can do, how they can help to break the communication barrier. Deaf children, then, will begin to feel that they are being treated fairly, that they can participate on equal terms with the other students.

In public school settings, there has been an overwhelming emphasis on teaching speech to deaf children. While it is important to develop a deaf child's potential for speech, there are other vital areas that should be recognized, such as the way of life of deaf people (what we in the U.S. call the deaf culture) and the strength of their sign language. It is important for deaf children to have deaf role models, to know about the lives of deaf people outside of the school. Then they will have something to strive for, goals to work toward, and a community of deaf people to reach out to for help if they need it. When they are finished with their education, they will already feel part of the community. They will already be connected to it.

The Need for Deaf Role Models

Hearing people have access to so much, so many services and events in the community. But deaf children don't; they don't even realize that they can look outside of the school for support. There needs to be a curriculum that includes information about the history, language, and way of life of deaf people so that children who have hearing parents will realize that they have a deaf identity, that there are others out in the world, exactly like themselves. Deaf children often have no deaf role models, since few, if any, deaf people are employed in public schools. These children have no deaf adults to look up to, as hearing children do with their teachers and the administrators of the school. Deaf children need to see another person just like themselves, someone wearing a hearing aid, perhaps. When they see that hearing aid, they will think, "Here is someone just like me." They will look up to them and feel a bond with them, instead of feeling they are alone and different. Sometimes even the hearing teachers in the school where I work will pretend to wear a hearing aid in order to encourage the children to wear theirs. Or, deaf children will see deaf teachers wearing their hearing aids and using sign language and it will encourage the children to do the same.

The subject of deaf role models in the schools is a very important one. It is essential that the schools make every effort to attract deaf people into the school system. But they must be careful not to employ deaf people only as aides or assistants because the children will notice that the deaf person is always in a lower status position than the hearing teacher. Instead, the children should see deaf and hearing professionals sharing power, making decisions together. The deaf employee should not always be the one taking orders or the deaf children will grow up believing that they will always be told what to do by hearing people. On the other hand, when they see a professional deaf person, they will develop the expectation that they, too, can grow up to assume a position of authority. Deaf people should assume positions of leadership in the administration. They should be employed as counselors and sign language teachers, as well. Although there are not many deaf people who currently have the necessary qualifications, things are changing in the United States. Deaf people are getting the training they need and in the future will be filling many more of these positions in the public schools.

As I have already pointed out, deaf children in mainstream settings usually have a very low self image. How can we improve this situation? How can deaf children develop a positive self image? Two things are essential: a supportive environment as well as a curriculum that teaches them who they are and what deafness means. They will discover that they are like other children in every respect except the ability to hear. They will see successful deaf people who have careers, drive cars, have homes and families, and so on, and they will realize that they, too, can aspire to these things. Sometimes, of course, there are hearing children who will mock or make fun of deaf children. Unfortunately, such insensitivity will probably always be part of our world. But, it is the responsibility of the school officials to address this problem. Deaf children who are in the minority will try and fight against the majority, but they will not be able to prevail. The problem must come to the attention of the administrators of the school. They should then step in to make it clear to the hearing children that such behavior is not acceptable.

Equal Access for Deaf Students

Deaf children need to have equal access. Recently, while observing a mainstream program, I noticed that there were no technical devices available to the deaf children, such as TDDs and television decoders. I asked one of the teachers if they had a decoder for the television, for the benefit of the deaf children. When she told me they did not, I wondered how long the deaf children would have to wait to have their needs met. The hearing children had access to the television programming and were, once again, moving far ahead of the deaf children. My concern is that the teachers aren't sensitive enough to the needs of the deaf children. Delaying action and making excuses for lack of access reflects an attitude that will be conveyed to the children, leading to future difficulties between the two groups—hearing and deaf.

Social Skills

Now I would like to focus on the social skills of deaf children interacting with hearing students. It is a natural tendency for people to want to socialize with others who share a similar worldview or culture. You will find that deaf people prefer to be with other deaf people in social situations in the same way that hearing people prefer each other. Even hearing people who are proficient in sign language and are sensitive about deafness will tend to prefer to socialize with other hearing people. There is nothing wrong with this tendency, but we need to be aware of it and to respect one another. I expect hearing people who are learning to sign to respect me so that when I am in their presence, signing is done. At the same time, I don't expect all hearing people, in other words, the general public, to know how to sign. But in the school system, I do expect everyone to use sign language when deaf children are present.

Exposure to normal, everyday communication is vital for deaf children. I remember my years as a young girl attending an oral residential school for deaf children. Often the teachers would talk with each other in the hallway, and I would wonder what they were saying. I had no idea whether they were talking about us, perhaps in a negative way, or about something else. This uncertainty can lead to paranoia, of course, and can create unnecessary anxiety. If only the teachers had signed their conversations. If I had seen them signing, "Meet me at lunch time," I would have realized they were planning a lunch meeting. Not only would that have reduced my fears, but it also would have given me exposure to social skills. This kind of information is important for children, and I wasn't getting any of it. If hearing people would sign their conversations, deaf children would have the opportunity to learn about their world in the same way that hearing children do. Teachers who use the oral method should face the children when they speak in their presence, not turn their backs on the children as so often happens. If deaf people are not present, of course, it is appropriate to speak to each other in the normal way, without signing.

Social Integration

I would like to share the results of a study done at the National Technical Institute for the Deaf in Rochester, New York (Rubin & Yust, 1986). A survey was conducted, focusing on NTID students who had attended mainstream programs during high school. The researchers asked the students about their social life with hearing friends, asking questions such as "Have you dated a hearing person?" and "How did you communicate with each other?" The students responded that they did try to socialize with hearing students when they were in high school, but usually felt they were different from their hearing acquaintances. They tried to participate in group activities such as going to basketball games, getting together, but it was rare to do so as a mixed couple, deaf and hearing. Because the school itself did not offer a meaningful orientation to deafness for the hearing students, the deaf students had to take the responsibility to orient the hearing students and try and get them involved. The survey asked, if they had it to do all over again, would they go to a mainstream program for high school and almost half of the deaf students responded negatively. They would have preferred to have been able to have deaf friends and date other deaf students. NTID is affiliated with Rochester Institute of Technology, a program for hearing students. Deaf students may choose to attend classes at RIT and to socialize with the hearing students. The deaf students at NTID stated that they preferred to socialize with other deaf students, due to their negative experiences during high school.

Why has there been so little success integrating deaf and hearing students socially? Generally speaking, there has been a tendency to reject the natural language of deaf children in both special schools and mainstream programs. American Sign Language, the language of the deaf community in the United States, has never really been accepted in educational programs for deaf children. Where signing is used, hearing teachers may use aspects of ASL for instruction, but not the language itself. In Sweden, the situation is different. When deaf children go to special schools, they learn Swedish Sign Language first. It is considered their first language, while Swedish, learned through reading and writing, is considered their second language. They become more proficient in both languages, as compared to what we see here in the U.S., where only deaf children of deaf parents have the opportunity to learn American Sign Language early.

Because of the communication difficulties, it is difficult for deaf children to participate in activities with hearing children, such as group discussions. They get lost and can't follow the dialogue because it is not accessible to them. The same is true for sports, competitive events, spelling contests, and so on. They begin to think of those activities as something for hearing children, experiences they cannot relate to. They must look for their own activities and their own identity. When they discover that identity, they create activities for themselves and get together with others like themselves. My opinion is that deaf children in mainstream programs often pay a high price.

Positive Aspects of Mainstreaming

On the positive side, some deaf people praise the quality of the education they received in mainstream education. They regard it as a valuable, though frustrating, experience. Quality of education is what they emphasize. Special schools for deaf children tend to simplify the curriculum, especially if the teachers are not proficient in sign language. Often the teachers cannot understand the children's communication and they do not have high expectations for deaf children. We know that deaf children on average lag far behind their hearing peers on tests of school achievement and English. Only a small number of deaf children are able to achieve at the level of hearing students their age. Some deaf parents, believing their deaf children will benefit academically, send their children to mainstream programs for this reason. Others, due to their own bad experiences at residential school during their early years and the fear that their children will go through similar experiences, also choose mainstreaming. Still other deaf parents believe the social and communication environments at special schools are the most important factors to be considered and choose a special school placement for their children.

Deaf children who attend mainstream programs often value their education because they believe it will enhance their career opportunities. They believe they have greater opportunities for attending college and can function better in the hearing world. In other words, they are able to get along with hearing people because they have had the experience of coping with the accompanying frustrations in their school years.

Even though these deaf students may not be completely oral, they often have some speech skills and are somehow better able to survive in the hearing world. Hearing people tend to accept them with a more open attitude. Deaf children who attend special schools do miss that kind of opportunity, so when they leave the special school, they face many frustrations.

Goals for the Future

Perhaps eventually we can combine the best aspects of mainstreaming with the best qualities of special schools to provide deaf children with a new and better alternative school. The result would be a school that offers deaf children a high quality of education while providing an atmosphere of acceptance, opportunities for unencumbered socialization with peers, and development of a strong sense of deaf identity. We can hope for such a school within the next 10-15 years, perhaps, but only if we work together. If deaf people reject hearing people and hearing people exclude deaf people, we will not accomplish our goals. We need to work together to meet this challenge, bridging the gap between deaf and hearing cultures, creating contexts where both hearing and deaf people can feel comfortable.

How can we all work together to make the necessary changes come about? Most importantly, hearing people need to have input from deaf people. Deaf and hard of hearing people, whether they are in integrated settings or in special schools for deaf children, need to be involved with both the development of programs for deaf children and the on-going decision-making involved in the administration of those programs. There will be some communication problems, of course, but with patience and time the situation will improve, leading to greater sensitivity to the differing perspectives of deaf and hearing people. Increased understanding of each other will lead to positive results for the children we are serving.

Remember as you work with deaf people, if a deaf person is alone in a group of hearing people, even when there is communication and sensitivity, that person will feel somewhat isolated. The same can be said for deaf children in hearing schools. Deaf and hearing identities are different so that even if we are in a crowd of hearing people, we feel alone. Our goal is to reach that feeling of equality where we can all feel the same, sharing with each other on equal terms. My point is not that I always have to be with deaf people; I can communicate with hearing people as well. But there are times when I feel I've reached my limit in trying to deal with the communication of hearing people. I simply want to be with people like myself—deaf people.

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Psychosocial Implications of Full Inclusion for Deaf Children and Adolescents

Irene W. Leigh

Although the concept of inclusion is viable for many children with special needs, a blanket application will likely have serious psychosocial repercussions for a large proportion of children and adolescents with significant hearing losses. Depending on the degree of hearing loss and numerous other factors, the social and emotional implications of full inclusion for deaf and hard of hearing children can range from potential for relatively easy integration to the likelihood of total exclusion with attendant feelings of isolation, rejection, and negative self-worth.

Deafness interferes with the typical acquisition of the English language, making the child rely more on visual than auditory stimuli for the comprehension and communication of information. In special education settings tailored to the needs of deaf students, information tends to be communicated visually. When access to English is completely limited to a visual channel, as is typically the case with profoundly deaf children, varying tactics have traditionally been employed (with varying degrees of success) in an effort to make spoken English comprehensible. In classrooms of mostly hearing students, the tactic of using an interpreter is generally of limited effectiveness (see Winston, this volume) and tends, furthermore, to bring attention to the unique status of deaf children in those settings.

The "normalization principle" of making available to disabled children social conditions equivalent to the norms and patterns of their surrounding society will create "normal development" for deaf children only if schools enable them to have full access to these norms and patterns. But is it "normal" to be in a setting where peer communication access is limited because it is not in the child's language or communication modality and the child has linguistic difficulties in English? Is it "normal" to be in an environment where you feel you are the "only deaf person in the world" and no one can understand what you are experiencing? We must ask ourselves: What are the likely psychosocial and emotional consequences of such school situations?

Of course, school is not the only environment affecting the psychosocial development of deaf children. As Hartup (1989) notes, evidence from recent studies suggests that language development, effectiveness in dealing with the social world, and self-knowledge emerge largely from experiences in close relationships, as in relationships with parents and siblings. The rules, customs, and social behaviors learned at home to overcome communication difficulties form the basis for outside social interactions. Whether these are effective depends in part on the children's flexibility, but also, largely, on the nature and capabilities of the individuals at home with whom the children interact.

Deaf children of deaf parents clearly have the advantage of growing up in a home environment in which parents are relatively more comfortable with their child's deafness, are able from the outset to communicate with the child in an accessible way, and potentially are able to share a wealth of information with the child concerning how to negotiate the hearing world as a deaf person. Deaf children of hearing parents, however, constitute roughly 90 percent of the deaf student population (Schein, 1989). In the case of this majority of deaf children, communication difficulties at home often create situations in which the children enter school developmentally behind other children. According to Marschark (1993), there is considerable research evidence that these children typically enter school with impoverished social skills and social experiences when compared either to their hearing peers or to deaf children of deaf parents. Ideally, the school setting complements the developmental background of the children and plays an increasingly vital role in the acquisition of mature social skills, as well as academic and emotional growth. The socio-cultural meaning attributed to being developmentally behind upon entering school, however, may adversely affect many deaf children's self-image, school functioning, social interaction, and self-actualization. It is therefore of critical importance that schools be prepared to accommodate, rather than overlook, entering deaf students' special needs.

A number of research efforts (e.g., A.E. Harris, 1978; Greenberg & Kusché, 1987; Paul & Jackson, 1993) have suggested that the lack of effective communication with parents and peers and lack of appropriate social models with whom deaf children can identify and communicate impedes social adjustment. Less understanding of what is going on and how others react to their behaviors results in less accurate self-images, and possibly low self-esteem. As Marschark (1993, p. 58) aptly puts it, "The observed pattern of developing personal and social behaviors exhibited by many deaf children appears consistent with their relatively restricted communicative and social interactions within the hearing community." In those cases when communication between hearing parents and a deaf child has been highly effective (which is not typically the case) the deaf child may be able to adapt, given the presence of appropriate support services, to regular public schools (Calderon & Greenberg, 1993; Moores & Kluwin, 1986).

But what about those many families in which hearing parents and siblings have lacked effective communication with a deaf child and have not been able to give the child experiences of fluent social interaction? These families may initially need school environments that, above all else, provide social opportunities and communication tailored to the child's special needs. Such families are particularly likely to benefit from having their child attend a residential school or specialized program that can facilitate interaction and communication that is visually accessible to deaf children. A wide range of socialization experiences, including playground activities, exchanges on the stairs at school, and so on, are part of the typical repertory of daily activities that tend to be adversely affected by limited communication or altered by the presence of interpreters in regular, local schools, but which are facilitated in special programs.

What is known about the self-perceptions of deaf students that result from efforts to "include" them in the mainstream? Are deaf children, in such circumstances, at high risk for less than optimal psychosocial development? Leigh and Stinson (1991) address this issue and conclude that the risk-level for deaf children is significantly high. The following paragraphs summarize their findings.

Reviews of the literature, such as Stinson's (1984), show that deaf adolescents typically have lower self-esteem than hearing peers and perceive themselves to have little personal control over events. Research on social relationships of mainstreamed deaf adolescents suggests that these students often experience social difficulties (Davis, 1986; Foster, 1989; Greenberg & Kusché, 1989;

Mertens, 1989), particularly loneliness, rejection, social isolation, and reliance on teachers and deaf peers rather than on hearing peers for socialization. With appropriate intervention, including special efforts, positive interaction between deaf and hearing peers is possible, but whether those interactions reach the equivalence of deaf-deaf or hearing-hearing peer interaction is not clear (e.g. Kluwin, Wismann-Horther & Kelly, 1989; Ladd, Munson, & Miller, 1984).

Students who attend residential schools generally report more positive social experiences than those who are mainstreamed in public schools (Davis, 1986; Farrugia & Austin, 1980; Foster, 1989; Mertens, 1989). The differences in social satisfaction in the two educational environments appear to be based on who the peers are, the conclusion being that for deaf students, deaf peers provide more social satisfaction than hearing peers. In a public school study conducted by M. Stinson, K. Chase, & T. Kluwin (1990), deaf students not only preferred interaction with deaf peers, but also were more emotionally secure with deaf peers. This supports Foster's (1989) conclusions that these youths regularly turn to each other to meet such needs as having "real" conversations, developing close friendships, and feeling a sense of belonging.

Stinson et al. (1988) cite findings which reveal that deaf students with good speech and lipreading skills can more easily interact with hearing peers. Nevertheless, these deaf students' ratings of their relationships with hearing peers suggest they felt the relationships were not as "close" as they wished. This can be interpreted to mean that such relationships are difficult to establish for a variety of reasons, primarily in the area of communication, such as in group situations where lines of discourse are easily lost. This study also found that interaction with hearing peers increased proportionately with the number of mainstreamed (as opposed to self-contained) classes a deaf student took. However, this increased interaction did not necessarily promote relational bonds with hearing classmates. For deaf students who were mainstreamed more frequently, mean ratings of emotional security with deaf peers were higher than with hearing peers. In other words, with some exceptions, these students were not getting psychosocial satisfaction from relationships with hearing peers. Such satisfaction, however, occurred regularly with deaf peers, with whom communication was generally easier.

Hence, the inclusion concept could have serious consequences for the psychosocial adjustment of deaf students, particularly those with difficulties communicating through speech and limited access to deaf peers. Time after time, panels of "successfully" mainstreamed deaf adolescents have commented that they had to struggle to gain acceptance and frequently experienced the pain of rejection and overt or subtle hearing biases against them. There is a clear implication that the definition of social success for deaf students in regular classroom environments becomes associated with "making it with hearing peers." This assumption reinforces the notion that socializing with deaf peers is a mark of failure—that deaf peers are not ideal companions, but somehow deviant, different, and not normal.

What, then, are the implications for the identity of deaf children when they have communication difficulties, do not have full access to the typical dialogue of hearing peers, are left out, need to make psychologically demanding extra efforts at inclusion, and learn the nuances of social cause and effect in a haphazard manner? We need to ask whether the pain of being less than fully accepted would have been mitigated by increased contact with deaf peers within the mainstream or in a school for the deaf. Deaf students who experience social difficulties are at risk for low self-esteem, emotional problems, and a sense of isolation from peers. They need contact with similar peers. With stronger self-esteem, socialization with hearing peers is facilitated and ability to interact with future hearing co-workers is enhanced.

From a psychosocial perspective, inclusion is not for every deaf child. Deaf children and adolescents have varying needs based on a multitude of factors, including communication competence, social skills foundation, language and cognitive capabilities, among others. For this population, the maintenance of a spectrum of options is essential to ensure that isolation remains at a minimum and deaf students have appropriate access to deaf peers.

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National Association of the Deaf Statement on Full Inclusion

"Full Inclusion," the placement of all children with disabilities in their neighborhood schools, irrespective of their unique abilities and needs, is a popular movement and not a federal mandate. Full inclusion calls for the elimination of special schools and programs[1] for all students with disabilities, including students who are deaf and hard of hearing. The movement towards "full inclusion" is being conducted with complete disregard for the provision of essential services, based upon a comprehensive assessment of each child, and is in direct violation of the Individuals with Disabilities Education Act (IDEA). In the case of many deaf and hard of hearing children, "full inclusion" creates language and communication barriers that are potentially harmful, and consequently deny many of these children an education in the "least restrictive environment" (LRE).

The National Association of the Deaf (NAD), does not support full inclusion and is opposed to elimination of, or restrictions on the use of, placement options mandated by the "Full Continuum of Alternative Placements" regulation of the IDEA. While the regular classroom in the neighborhood school may be the appropriate placement for some deaf and hard of hearing students, for many it is not. The NAD is committed to preserving and expanding the use of the full continuum of alternative placements to ensure that each deaf or hard of hearing child receives a quality education in an appropriate environment.

The NAD believes that an appropriate placement for a deaf or hard of hearing child is one that:

- enhances the child's intellectual, social, and emotional development
- is based on the language abilities of the child
- offers direct communication access and opportunities for direct instruction[2]
- has a critical mass of age-appropriate and level-appropriate peers
- takes into consideration the child's hearing level and abilities
- is staffed by certified and qualified personnel[3] who are trained to work with deaf and hard of hearing children
- provides full access to all curricular and extra-curricular offerings customarily found in educational settings

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[1] Residential schools, day schools, center schools within districts, special classes, etc.

[2] Opportunities to communicate directly with teachers, without the intervention or over-reliance on interpreters or transliterators.

[3] Teachers, counselors, psychologists, interpreters/transliterators, etc.

- has an adequate number of deaf and hard of hearing role models
- provides full access to support services
- has the support of informed[4] parents
- is equipped with appropriate technology[5]

In essence, the NAD believes that *all* deaf and hard of hearing children are entitled to a Free and Appropriate Public Education (FAPE), in an environment that enhances their intellectual, social, and emotional development. The NAD also believes that direct and uninhibited communication access to all facets of a school's programming[6] is essential if a deaf or hard of hearing child is to realize his or her full human potential. As stated in a Department of Education Guidance (October, 1992),

> Meeting the unique communication needs of a student who is deaf is a fundamental part of providing a free and appropriate public education (FAPE) to the child. Any setting, including a regular classroom that prevents a child who is deaf from receiving an appropriate education that meets his or her needs, including communication needs, is not the LRE for that individual child. (p. 49,275)

The policy guidance further states that the development of an Individual Education Plan (IEP) and determination of a FAPE in the LRE for a deaf or hard of hearing child must take into consideration several factors, including:

- communication needs and the child's preffed mode of communication;
- linguistic needs;
- severity of hearing loss and potential for using residual hearing;
- academic level; and
- social, emotional, and cultural needs, including opportunities for peer interactions and communication. (p. 49,275).

The NAD believes this Department of Education Policy Guidance must be followed and that placement decisions must be based on a determination of what is appropriate for the individual child. Placement of all deaf and hard of hearing children in regular education classrooms, in accordance with a "full inclusion" doctrine, is a blatant violation of IDEA with serious consequences for many deaf and hard of hearing children. The NAD is therefore compelled to call upon the Office of Special Education and Rehabilitation, United States Department of Education, to significantly increase scrutiny of educational restructuring at the state and local levels and to insure compliance with the law. The NAD also calls upon state departments of education and local school districts to adhere to the law, and to ensure that deaf and hard of hearing children do not become victims of a movement rooted in ideology, rather than empiricism.

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[4] An informed parent is one who is fully aware of the range of available options, and the pros and cons of each option, with respect to his or her child's unique abilities and needs.

[5] Visual devices (e.g., graphic calculators), computers, amplification equipment, etc.

[6] All curricular and extra-curricular offerings

Statement on Full Inclusion

I. King Jordan
President, Gallaudet University

I stand unequivocally in support of the right of all students to a meaningful and quality education.

> In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all on equal terms. Brown v. Board of Education, 1954

That statement is just as true today, 40 years later, especially for students with disabilities. Access to education is so fundamental that the denial of that access for students with disabilities is tantamount to glass curbs and glass isolation cubicles. Denial of full access to education leads to the eventual denial or diminishing of quality life in American society.

Access for a student with a disability, however, means more than just an integrated placement; it means the fundamental and concomitant right to acquire a meaningful education, in a placement appropriate to that individual child, as guaranteed by the Individuals with Disabilities Education Act. Access must be defined individually, for each child.

For students who are deaf or hard of hearing, the right of access to an appropriate and meaningful education requires the availability of educational options, ranging from special schools to regular classes. Moreover, each educational option must also include the assurance of a meaningful, competency-based and student-centered program, in an interactive environment with qualified personnel and peers like themselves.

The word "inclusion" for deaf and hard of hearing students cannot be seen simply as a placement decision, but must, instead, refer to a philosophy which:

- maximizes the child's abilities and fully taps his or her potential,
- facilitates direct communication with others,
- permits the child to function as a full participant in his or her education, and
- promotes the development of positive self-esteem.

This educational premise is pro-choice and pro-child. To be included, a child must *feel* included. Any school or program which calls itself inclusive must meet the above criteria. Inclusion cannot and *must* not be a one-size-fits-all model.

December 11, 1993

Gallaudet University, in Washington, D.C., is the world's only liberal arts university for deaf students. In addition to offering on-campus educational programs from the preschool to doctoral level, Gallaudet is an internationally recognized center for research, program development, and consultation related to deafness and hearing loss. Gallaudet University is an equal opportunity employer/educational institution and does not discriminate on the basis of race, color, sex, national origin, religion, age, hearing status, disability, covered veteran status, marital status, personal appearance, sexual orientation, family responsibilities, matriculation, political affiliation, source of income, place of business or residence, pregnancy, childbirth, or any other unlawful basis.

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