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Abstract

Historically, the education of the deaf has not been viewed as successful. Deaf students graduating from high school read at the third or fourth grade level. The oral method, which had been the traditional method of instruction in deaf education, gave way to the Total Communication approach during the 1970s. This approach utilized a simultaneous oral and manual component. However, neither method has produced the desired results and deaf children still lag behind the academic performance of their hearing peers. A bilingual/bicultural approach, within a Vygotskian framework, has been suggested to improve the educational performance of deaf students. This study investigated the educational policy of the deaf and how it was interpreted at a site within the Desert View County Deaf and Hard of Hearing Program. The site was a regular education campus, Joshua Elementary School, which was part of the Blossom Hill School District. Results of the study indicated that there was a breakdown in translation of education policy and a lack of articulation between the County and the District. Additionally, there was confusion regarding language use in the classroom, as well as a lack of knowledge concerning the bilingual education of the deaf.

Introduction

Historically, the education of the deaf has not been viewed as successful. The oral approach, which prohibited the use of signing, was the traditional method for teaching language and other academic subjects to the deaf. During the 1970s, oralism gave way to the Total Communication approach (Barnum, 1984). This method utilized a simultaneous manual and oral component. Educators believed that the communication barrier that deaf children suffer from could be broken simply by teaching the deaf child to read English. This belief led to the development of manual codes for English. Signing Exact English (SEE) is reportedly the most commonly used within deaf education (Ramsey, 1993). However, linguists do not consider the various forms of manually coded English as natural languages for the deaf, but rather artificial codes meant to be accompanied by speech. American Sign Language (ASL), the sign system used by the deaf in the United States and Canada, has been recognized as a bona fide language. While ASL and English share the same lexicography, the syntactical structure of ASL differs considerably from that of standard English and includes non-manual behaviors such as eye, head, face, and body movements.

Neither the oral method nor the Total Communication approach has proven completely successful in deaf education. The academic achievement of deaf children still lags significantly behind that of their hearing peers. And in spite of its recognition by linguists as a language, ASL remains excluded from the deaf education process, while English continues to be the focal point of instruction (Hayes & Dilka & Olson, 1991).

Literature Review

History of Deaf Education (1817 - 1975). The first school for the deaf in the United States was founded by Thomas Hopkins Gallaudet in 1817. At the time of its inception, two distinct educational camps had formed. The oral camp was led by the inventor of the telephone, Alexander Graham Bell, who believed that almost all people process language auditorially. Proponents of the oral philosophy felt that deaf people must be prepared to live as much like hearing people as possible. The manual camp, led by Edward Miner Gallaudet, was based on the belief that many deaf children could not learn to speak or speechread well enough to use it as their primary means of communication (Winefield, 1987).

At the International Congress on Deafness, held in Milan, Italy, in 1880, hearing educators of the deaf, in spite of opposition from deaf educators, decided that manual communication restricted or prevented growth of speech and language skills in deaf children. Since that time, and up until the 1970s, oralism persisted as the overwhelmingly predominant method of education in America (Barnum, 1984).

During the 1970s, deaf students began to attend programs located in regular educational settings instead of the residential schools which had been common practice prior to that time (Ramsey, 1993). During the past twenty years, the residential schooling trend has shifted and most deaf children currently attend programs in regular public elementary schools whose Total Communication policies call for instruction through spoken English accompanied by some manual component (Ramsey, 1993). For the most part; however, the instructional emphasis has been on the use of SEE.

Education of All Handicapped Children Act of 1975 (PL 94-142). In 1975, the Education of All Handicapped Children Act (PL 94-142) was passed, which was based on the Brown v. Board of Education decision of the 1950s. Its goal was to guarantee equal education for all handicapped children. The law attempted to protect the civil and educational rights of the handicapped. It was estimated that of the eight million handicapped children residing in the United States, at least half were not receiving an adequate education and one million were receiving no education at all. The law called for education of the handicapped in the least restrictive environment (LRE), which translated into placing the deaf as much as possible with their able bodied hearing peers. This led to mainstreaming, or the placement of special education students in the regular classroom. Despite the fact that mainstreaming may not best serve the needs of deaf students, it was routinely considered beneficial to hearing students so they could be exposed to different kinds of people (Ramsey, 1993). In 1988, the Commission on the Education of the Deaf stated that the intent of PL94-142 to place all handicapped children into the least restrictive environment was misinterpreted to mean mainstreaming for nearly all deaf children, which given the communicative and social barriers of the local school has resulted in the most restrictive environment for many deaf children (Lane, 1992).

The law categorized all types of special needs students as one class of person, in spite of the fact that each group required very different educational needs. The law took the view that deafness was a pathological state even though a large percentage of deaf children became members of the deaf community which considered itself an ethnolinguistic minority. The education of the handicapped, it was assumed, was not an academic process; but rather, a socialization process which required assimilation with "normal" models (Ramsey, 1993).

According to Barnum (1984):

For too long we have let our desire to create "normal" children, that is, seemingly hearing children, outweigh the facts of research in determining educational policy for deaf children... it was decided that educating deaf people meant teaching them to speak, read, and lip-read English... where was the study group that gave credence to this theory? When does any professional field accept a hypothesis without backing and instigate its implications without reservation? (p. 404)

Educational research must carefully consider the means by which its results can be used to improve the condition of children. Successful educational research must bring about changes to the educational system that are of demonstrable benefit to children. Anything less should be unacceptable. In special education, a gap has existed between theory and practice in spite of the fact that isolation of one from the other is destructive (Moores, 1990). The Commission on the Education of the Deaf (1988) urged that outmoded educational policy "be brought into line with recent scientific discoveries in linguistics" (p. 42). An obstacle to bridging the gap between research and its application has been the perception of research and adoption as separate domains of universities and public schools. This viewpoint has led to frequent educational practice that is neither theory nor data based (Moores, 1993).

Language Acquisition

The communicative competence of children is directly associated with their acquisition of language. Young learner's proficiency in their language is critical for facilitating communication and academic success (Daniels, 1994). Despite the inclusion of manual systems in deaf instruction, the education of the deaf is largely considered a failure in light of the criteria (e.g. speech acquisition and reading skills) which have been used to measure success (Stevens, 1980). These skills, while measurable, ignore the prerequisites of communication, semantics and culture to a so-called normal education. By regarding deaf students as "without a language," the hearing majority has culturally and linguistically oppressed deaf students (Stevens, 1980). The language deficiency myth which has pervaded the American educational system, considers the language of students from different cultures as inadequate and allows educators to demand that students be made over and properly acculturated by the learning of English (Pores, Teft-Cousin & Díaz, 1991). Cummins (1984) stated that, "The commitment to assimilation of minorities was so strong that the school treatment of minority students was taken for granted and not subjected to scrutiny." (p. 103)

Most deaf students leave high school with a third or fourth grade reading level. One explanation postulated for this failure is that since the deaf cannot hear oral language and therefore cannot monitor speech output, they seldom are capable of becoming a native speaker of an oral language (Cicourel & Boese, 1972). An important question raised is whether mastering spoken and written English is even a possibility for most deaf individuals (Barnum, 1984). The various manual forms of English are not considered natural languages for the deaf, but rather artificial codes meant to be accompanied by speech. The crucial flaw in deaf education has been the language of instruction (i.e. coded English) since it is not a natural language that deaf children are capable of acquiring in a normal manner (Drasgow, 1993).

A psycholinguistic perspective views language acquisition as a learning process; that is, learning how to process certain kinds of information efficiently (Drasgow, 1993). If deaf children cannot fully comprehend the linguistic information received in English, how can competence in reading and writing be expected? Hearing impaired children often have been taught to speak, but that does not equate with mastery of a language. Recently, some researchers indicated that the best avenue for deaf children to learn English is through the acquisition of a natural sign language, which for the deaf has meant ASL or some pidgin form of ASL (Barnum, 1984).

However, questions concerning the manner in which deaf children can acquire ASL have been raised since over 90% of all deaf children come from hearing parents who do not sign and who do not provide an opportunity for deaf children to acquire a natural language at home prior to school entry (Christensen, 1989). Less than ten percent of deaf children come from deaf parents who provide spontaneous sign language acquisition in the home. Research has demonstrated that deaf children who enter school with a strong ASL base do better than their non-signing peers in all academic areas (Chistensen, 1989).

In deaf educational programs, most teachers in the classroom are not fluent in both ASL and English. In her research in a deaf classroom, Erting (1980) found that the formal classroom signing used by hearing teachers was strikingly different from the sign language conversations of deaf people. Strong and Stone-Charlson (1987) found that student comprehension was frequently diminished as a result of the teacher's strain of communicating in two modes simultaneously, as well as students' difficulty in concentrating on two channels at once. According to Ramsey (1993):

For all the policy attention devoted to the media of communication in deaf education, the actual functions, successes or failures of communication in deaf education have long been "transparent" to many practitioners.. .very little of what is "taught" to deaf children is learned by them. Since.. .language is the medium which structures teaching and learning, then language use is a reasonable place to investigate the sources of problems. (p. 35).

Drasgow (1990) maintained that the most competent users of ASL are the deaf themselves and they should be included as language models in the classroom. At the present time, deaf people and their language are shut out of deaf education. The most important reform in deaf education should be to get deaf teachers, administrators and parents involved in the education of deaf children (Lane, 1992). The purpose of including deaf adults in deaf education would be to enable deaf students to acquire competence in ASL. In recent decades, less than 20% of teachers of deaf students are deaf or hard of hearing individuals (Christensen, 1990).

While the linguistic community has accepted ASL as a bona fide language, the professional educational community has not. For the most part, manual communication has been added to the repertoire of teaching skills instead of being viewed as a language. Barnum (1984) asked, "If one can ever achieve mastery of a language if one cannot receive it in the medium for which it was developed." (p. 405) Speechreading and the manual coding of English were not the means by which English was meant to be received. The challenge to hearing teachers of deaf students has been in their ability to see and hear language in new ways. The challenge has been to learn that deafness is not the absence of sound; but rather, the presence of visually-based meaning (Akamatsu & Andrews, 1993).

Language and Cognition within a Sociocultural Framework

A social constructivist framework holds promise for understanding how deaf children acquire and develop language, literacy and cognitive skills (Akamatsu & Andrews, 1993). According to Hayes, Dilka and Olson (1991):

The common bond that integrates a culture's history, values and attitudes into a unified social identity is language. Language provides an avenue for investigating the complex relationship of thought, meaning and speech that is manifested in cultural behaviors and traditions. Language performs the central role in the formulation and enactment of cultural beliefs. (p. 10)

According to Wertsch (1991), the Russian psychologist, Lev Vygotsky (1886-1934) proposed that the process of thinking/meaning and social situatedness could not be separated into distinct categories; but rather, were interdependent. Vygotsky postulated that all higher mental functioning in an individual is the direct result of social interaction through the use or mediation of tools and signs (i.e., language). His approach to language and other sign systems focused on how they are a part of and mediate human action Vygotsky's "law of cultural development" held that any function in a child's development occurs first on the social, intermental plane, and then on the psychological, intramental plane.

Word or sign meaning cannot be separated from thought or expression and the association between thought and meaning changes and expands over time (Hayes, Dilka & Olson, 1991). Cognitive development occurs because mediation within a social context aides children in making meaning (Akamatsu & Andrews, 1993). The contextual milieu in which children socialize teaches them communicative competence. Expression or communication can be accomplished by a variety of mediational sign symbol systems. Auditory language is not required by deaf children to develop into thinking adults (Hayes, Dilka & Olson, 1991). Vygotsky considered the privileging and mediation of tools and sign systems, such as natural language, to be a defining property of higher mental functioning (Wertsch, 1991). Within a deaf context, sign language is the privileged tool which permits the transference of cognition from an external, social sphere to an internal, psychological sphere.

However, the level of success which the learner experiences is dependent upon the capability of the teacher to evaluate what the learner is capable of independently accomplishing. Vygotsky postulated the existence of a "zone of proximal development," which defines the distance between the learner's actual developmental level and the potential developmental level (Carton, 1992). It is the difference between what the learner can accomplish with guidance and what can be accomplished independently. The zone represents the region where cognitive development takes place (Garton, 1992). As children shift responsibility from an external sphere to an internal one, they progress through this zone of potential development. Vygotsky maintained that learning was possible only if it occurred within the zone (Hayes, Dilka & Olson, 1991; Akamatsu & Andrews, 1993; Carton, 1992; Wertsch, 1991), and that instruction should be more closely tied to the level of potential development rather than the actual developmental level (Wertsch, 1991).

Participation in the zone requires the establishment of mutual understanding of the task or situation. It implies a degree of collaboration between the child and the more capable adult or peer (Garton, 1992). Effective mediation within the zone requires the establishment of shared cognition or intersubjectivity. As the learner is engaged and attends to the task, a greater proportion of the communication is used on the task and less on establishing what the task is (Akamatsu & Andrews, 1993).

However, within the deaf child's social interactions with a hearing teacher the mutuality required for shared cognition often breaks down. This is especially true in classroom contexts where more than one mediational tool or language is being utilized. Many hearing people believe that the communication barrier between the deaf and hearing can be broken simply by teaching the deaf child to read. What they fail to realize is that unlike their hearing peers, many deaf children enter school with little or no sign language base. The interpersonal communication that is critical for cognitive development is inaccessible to deaf children born into hearing families that do not utilize sign language in the home (Akamatsu & Andrews, 1993). The normal mechanism which forms the social relationships by which learning occurs is disrupted (Carton, 1992).

Bilingual Education of the Deaf

If we define a bilingual person as one who uses two or more languages in everyday life, then the deaf person who signs and who uses English can be considered as bilingual (Grosjean, 1992). People who speak two or more languages usually exist within a group or community. People who speak a minority language within a majority language context form a language community (Baker, 1993). When a person uses two languages, they will not use both in all circumstances. In certain situations, one language will be used, while in other contexts, the second language will be used. Since language can express one's identity, the identity imposed by one's group membership plays a crucial role in language choice (Appel & Muysken, 1987).

Minority languages, for the most part, have had only a marginal place in the educational system in spite of the fact that a child's first language is normally the best instrument for learning. Minority language teaching also promotes a positive self-image in the child (Appel & Muysken, 1987). So many deaf students are illiterate in English because the systematic denial of their primary manual language shuts out the most effective means for teaching them a second language (Lane, 1992). When existing teaching methods are not producing acceptable results in literacy and other academic areas, then it is time to consider another approach. Deaf children still lag behind their hearing peers much to the same extent that they did 80 years ago (Strong, 1991).

Recently, some deaf researchers have advocated a bilingual/bicultural approach to the education of the deaf, in which ASL would be considered the first or native language and English would be considered the second language (Barnum, 1984). Drasgow (1993) stated:

The purpose of a bilingual/bicultural approach to deaf education is to provide deaf students access to a natural language which can then become the language of instruction for teaching English. (p. 254)

From a Vygotskian perspective, this approach would allow students the communicative interaction necessary for an experiential base on which they would then develop higher cognitive skills.

Once these cognitive skills have been internalized, the student then would be able to transfer them to use in English. Language, whether spoken or manual, in order to be an effective mediational tool, must facilitate cognitive processes. The various manual codes for English are much slower at conveying information than ASL, whose syntax permits approximately the same linguistic processing rate as that of spoken language (Drasgow, 1993).

The Acquisition-Learning Hypothesis and the Input Hypothesis (Krashen. 1988) have formed part of the theory behind the bilingual

education framework. According to the Acquisition-Learning Hypothesis:

There are two ways of developing ability in a second language. Language acquisition is a subconscious process... people are often not aware that they are acquiring a language... what they are aware of is using the language for some communicative purpose. Language learning is knowing about language or formal knowledge of a language. (p. 58)

The Input Hypothesis stated: "We acquire structure by understanding messages.. not analyzing it (language)." (p. 58) A successful second language program would provide input in the language that is comprehensible, interesting and relevant to students (Krashen, 1988). The failure of deaf children to acquire fluency in English has not been because their cognitive or linguistic processes are disturbed. It has occurred because of the methods which are being used to teach English do not provide enough adequate input for understanding (Drasgow, 1993).

Children require a comprehensive understanding and ability in their first language before they can employ the pragmatic, syntactic and semantic components of a second language. For the deaf, the structure of English must be learned by artificial means. Rather than the natural ease of listening, the deaf must utilize metalinguistic symbols within a coded system which does not provide adequate or appropriate linguistic information for many deaf children (Drasgow, 1933; Hayes, Dilka & Olson, 1991). The Commission on the Education of the Deaf (1988) stated that: "It has been shown repeatedly that children whose primary language is ASL. . . are at a severe educational disadvantage in a system that disbars, denigrates and denies their primary language." (p. 42)

According to Lane (1992), programs for the deaf appear to reflect more the needs of the hearing teacher than they do of the deaf students they are purporting to serve. In a program which centers on the hearing teacher, the deaf student's difficulties in becoming fluent in English are imputed to the student, their families or their background. The teacher centered program pre-supposes that deaf students suffer from a language and cultural deficit and that the only relevant culture for deaf students is the teacher's culture. This belief supports what Flores, Teft-Cousin and Díaz (1991) refer to as "one of the most pervasive and pernicious myths about language minority students. "(p. 370) Cummins (1984) maintained that:

The failure of educators... to critically examine the implicit acceptance of... dominant group values... has served to perpetuate the educational (and societal) status quo in which cultural and socioeconomic differences are frequently transformed into academic deficits. (p. 93)

According to Freire (1993), if language and cultural domination are to succeed, it is essential that the minority consider themselves inferior The social status of a language is a powerful factor in assessing language vitality. When the majority language is given a higher social status or prestige value, a shift toward the majority language can occur (Baker, 1993). Students who do poorly in academic areas tend to be those who express ambivalence toward both their own culture and the majority culture (Barnum, 1984). Many deaf individuals do not consider themselves bilingual in spite of the fact that they find themselves at various points along the language mode continuum in their everyday lives (Grosjean, 1992).

At present, ASL bilingual/bicultural programs for the deaf are not supported under the Bilingual Education Act (BEA) of 1968, even though ASL is considered a language and the deaf community views itself as an ethnolinguistic minority. Recommendation Fifteen of the Commission on Education of the Deaf (1988) stated that:

The Department of Education should take positive action to encourage practices under the Bilingual Education Act that seek to enhance the quality of education received by limited English-proficiency children whose native (primary) language is American Sign Language. (p. 43)

The BEA does not specifically exclude deaf children who use ASL. However, former Assistant Secretaries of Education Will and Davila gave government approval to the opinion that ASL was not a language, but merely a coded form of English (Drasgow, 1993). As a result, some educators have equated "language" with "spoken words" (Christensen, 1989, p. 9). The Office of Bilingual and Minority Language Affairs (OBEMLA) expressed the belief that deaf children do not satisfy the non-English native language condition of the Act since their difficulties are seen as arising from a pathological state, even though the BEA specifically includes those children who "come from environments where a language other than English is dominant.. and who have sufficient difficulty speaking, reading, writing or understanding the English language." (p. 812) Strong (1991) maintained that deaf children who have used ASL since childhood have a native language other than English and have sufficient difficulties functioning in all-English classrooms, thereby satisfying the BEA's limited-English-proficient eligibility criteria.

Although deaf bilingualism shares many characteristics with the bilingualism of hearing people, some aspects are specific to the deaf. First, deaf bilingualism is not a transitional situation. Because of their inability to process language auditorially, the deaf will remain bilingual (ASL and English) for their entire lives. Second, certain language skills in the majority language (e.g., speaking) may never be fully acquired by deaf individuals (Grosjean, 1992). However, the goals in a deaf bilingual education program are the same as with other minority languages: that deaf children become fluent in English (at least in its written form); are able to achieve in school at a comparable level with that of their hearing peers; and that they become fully fluent in ASL and are able to use their primary language for cognitive development (Strong, 1991).

Summary of the Literature Review

It would seem that more empirical research in deaf education is required, especially regarding the extent to which language in the classroom succeeds as a medium of instruction. The learning processes of the deaf are still not well understood (Ramsey, 1993). Little information describing programs that teach ESL to deaf students has been found in the literature. More research data concerning the effectiveness of a bilingual/bicultural approach are needed (Drasgow, 1993). Additionally, the process by which new knowledge is translated into educational innovation should be examined to bridge the gap between researchers and educational practitioners (Moores, 1993).

Assumptions. For this study, the following assumptions apply: (a) Deaf children who have sign system base upon school entry have a cognitive advantage over their non-signing peers; (b) Deaf children do not inherently suffer from cognitive or linguistic deficiencies; and (c) Hearing parents of deaf children need to learn the natural sign language of their children so they can provide communicative contexts with the child.

Foreshadowed Problems. This study concerned the current policy of deaf education and the possible application of a bilingual approach to the instruction of the deaf. The study focused on a county-run deaf and hard of hearing program located on a regular education campus. Some of the foreshadowed problems were: (a) How can we improve the educational success of deaf students? (b) Could the application of a bilingual/bicultural approach contribute to that success? (c) What are the program expectations for students? (d) How is current educational policy implemented at the site? (e) How is district policy articulated with the county? and (f) Which is the primary language of instruction and how does it affect student performance?

Significance of the Study

Recent research indicated that children who enter school with a strong ASL communicative base do better in all academic areas (Christensen. 1989; Barnum, 1984). However, little formal research has addressed the actual communicative processes of students who use ASL and English. Furthermore, it would seem that the current educational policy for deaf children has not been based on any empirical research (Barnum, 1984; Moores, 1993), nor has it been successful (Stevens, 1980; Hayes, Dilka & Olson, 1991). The purpose of this study was to examine current educational policy for the deaf at the national, state and local levels and how that policy was being implemented at the selected site.

Design and Methodology

For this study, purposeful sampling procedures included site selection and maximum variation sampling. Focused synthesis included interviews with administrators and teachers, as well as documents relative to the site.

Site Selection. The site* selected for this study was a Deaf and Hard of Hearing (DHH) Program run by Desert View County in conjunction with the Blossom Hill School District. The program was located at Joshua Elementary School which was a regular education campus. This was the third site for the DHH program in less than three years.

Site Description. Joshua Elementary was under construction and so student classrooms were housed in temporary trailers located

^{*} All of the site and individuals names for this study have been changed.

on site. Construction was expected to be finished some time in the coming year. When completed, the District planned to move an alternative learning program into the vacated trailers. Additionally, a Head Start program was expected to open at the site within the coming year, and was to be placed in the completed main building. The Deaf and Hard of Hearing Program was expected to remain in the temporary trailers outside of the main building.

Joshua Elementary was a regular education campus serving 760 students in grades kindergarten through sixth. The school was located on the edge of a recently built housing tract within the limits of the city, which the county had designated as rural-suburban. Joshua Elementary had four classrooms each for grades kindergarten through fifth. The school also housed two of the Desert View County Deaf and Hard of Hearing classrooms. The other DHH classrooms within the County's jurisdiction were located on two separate regular education campuses in the city of Moorehead, located ten miles to the north of Blossom Hill. The primary level DHH classroom, which included preschool through second grade, consisted of ten students. The upper level DHH classroom, which included third through sixth grade, consisted of thirteen students.

Mainstreaming. Students in both the primary level and the upper level DHH classroom were mainstreamed during the morning hours into one or more of the regular classrooms. Mainstreamed subjects included mathematics, social studies, physical education and science. Students were also mainstreamed during recess and lunch periods. However, because of the phonics based language arts program which was in practice at the site, the DHH students were excluded from the regular classroom during language arts time. Instruction in language arts took place in the DHH classroom during the afternoon hours.

Interview Selections. Interviews were conducted with Mrs. Wynne, the Administrator of the DHH program; Mrs. Burke, the teacher in the primary level classroom; Mr. O'Hara, the Principal of Joshua Elementary; and Mr. Connor, the Assistant Superintendent of Pupil Personnel and Instruction for the Blossom Hill School District. The administrators and teacher were selected because they are the individuals who most directly affect the manner in which policy is implemented at the school site, and who were considered directly responsible for student outcomes in the program.

Document Selection

For this study, the State of California Education Codes, the California Department of Education Program Guidelines for Hearing Impaired Students, the California Department of Education Strategic Implementation Plan, the California Assembly Resolution Number 55, and the United States Education Codes were selected for research. In addition, the Desert View County Policy on Education, the Blossom Hill School District Education Policy and the Blossom Hill School District Comprehensive Plan for Special Education were also consulted.

Data Collection

Data were collected over a period of several months from Spring, 1994, through Fall, 1994, by the researcher who served in a participant/observer role. Since the researcher's son was a student at the site, an interactive role had already been established with the administrators and teacher interviewed for the study. Interviews were conducted at the school site, the Desert View County Regional Administrative Offices, located at Fisher Creek School, and the Blossom Hill School District offices. Initially, five broad questions were selected to guide the interviews; however, during the course of each interview several additional questions emerged. The objectives of the interviews included: (a) Explore student expectations in the program; (b) Explore teacher and administrative knowledge of bilingual theory; (c) Examine the implementation of board policy at the site; (d) Explore district and county articulation; and (e) Explore the perceived effectiveness of the program and procure suggestions for improvement.

Each interview was taped and transcribed. Notes taken during the interviews were included in the transcripts as parenthetical observations. The documents were selected because of the critical role they play in the formation of educational policy and because they provided a framework by which the researcher was able to treat the data and report findings.

Presentation of Findings - Documents Educational Codes and Program Guidelines

Both the United States Education Codes and the California Education Codes indicated a broad interpretation of PL 94-142. which in 1990 became the Individuals with Disabilities Education Act (IDEA). Both codes stated that an individualized educational plan (IEP), based on appropriate assessments, be developed to meet the unique needs of the handicapped. However, California Assembly Resolution Number 55, filed in May, 1992, stated that, "Assessments of pupils... often are not comprehensive, and the results do not consistently relate to pupils." (p. 2) The California Program Guidelines for Hearing Impaired Individuals indicated that very few assessment instruments have been standardized The actual interview questions are listed in the Appendix on the hearing impaired (1986). The California Department of Education's Strategic Implementation Plan also maintained that there was a need for more comprehensive assessments of students and that the results be more closely related to the IEP (1994).

Both codes called for the concept of Least Restrictive Environment (LRE), which has been interpreted historically as mainstreaming into a regular education classroom. The United States Education Codes stated that IDEA, "Denotes a clear preference by Congress for inclusion of handicapped children in classes with other children." (p. 29) The California Program Guidelines for Hearing Impaired Individuals (1986) called for an environment that, "Optimizes opportunities for communication and for social, emotional, and academic growth." (p. 20)

The California Education Code defined special education as: "Specifically designed instruction, at no cost to the parents, to meet the unique needs of individuals with exceptional needs, whose needs cannot be met with modification of the regular educational program." (p. 15) The United States Education Code stated that:

All handicapped children have available to them... a free, appropriate educational program which emphasizes special education and related services designed to meet their unique needs. Free appropriate education... requires personalized instruction with sufficient support services to permit child to benefit educationally from that instruction. (p. 15)

However, IDEA does not require the provision of educational services which maximize student's potential or that achieve strict equality. The law creates only a federal minimum with which the school district must comply.

With regard to bilingual education, both the California and the United States Education Codes indicated an obligation to assist language minority students to acquire English language proficiency. The United States Education Code identified the natural, primary language as the means by which a child learns. It further identified a limited English proficient (LEP) student as: "One whose native language is other than English or comes from an environment where a language other than English is dominant... and who has sufficient difficulty speaking, reading, writing or understanding the English language." (p. 812)

The California Program Guidelines for the Hearing Impaired (1986) recognized ASL as a natural language, and considered ASL as a language other than English. It also stated that a primary need of deaf and hard of hearing students is a "Communication system that allows for effective.. acquisition and sharing of ideas and concepts. Without such a system, hearing impaired children experience limited learning opportunities and human isolation." (p. 4) Additionally, one of the problems which the Strategic Implementation Plan (1994) identified with the current delivery system was limited access to the core curriculum as well as a need to address specialized curriculum needs by the deaf and hard of hearing.

Board Policy and Comprehensive Plan

At the local level, the Blossom Hill School District and the Desert View County Policies coincided with the California (West's Annotated California Codes, 1989) and United States Education Codes (United States Codes Annotated, 1990). These documents indicated that the instruction program provided would be appropriate to the level of each student. The Blossom Hill School District Comprehensive Plan for Special Education stated that special education was an integral part of the total public education system and must:

Provide maximum interaction between disabled and nondisabled students. To meet the intent of State and Federal statutes and regulations... disabled students receive their education in a chronologically age appropriate environment. (p. IV 24)

With specific regard to the handicapped, as well as LEP students, both policies maintained that procedures to identify such students be established and that they be provided with appropriate instruction to meet their needs. The placement of special education students, "Will be served within the concept of least restrictive environment," (p. ARO 420) and the placement of LEP students will be in a bilingual/bicultural program. Both the County and District policies indicated goals which promoted student success and which developed reading, writing, and language skills.

Presentation of Findings - Interviews

Student Expectations. When questioned about student expectations in the program, Mrs. Wynne, the DHH Administrator, stressed the attempt to "normalize" the deaf student's experience in the educational setting. The program philosophy was that deaf students are normal, "but their ears don't work." The main focus of the program was on language development and vocabulary building, especially since some of the students entered the program with no prior sign language exposure. Additionally, Mrs. Wynne stated that although, "Cognitively some students aren't on the same level," the work presented to children was at grade level. However, language based mechanics that hearing students were assumed to figure out had to be explicitly taught to the deaf. The expectation was to, "Build that base," so that mainstreaming with the hearing population could be achieved.

Mrs. Burke, the primary level DHH teacher, indicated a shared perception of deaf student's academic expectations. She said that with deaf children the teachers, "Work as close as.. .we can to the approximation of their age level in language." Children with some hearing were expected to have a better language level at an earlier age, whereas, "Deaf children have to work at it much harder." Vocabulary and language building were affirmed as the main program goals. Mainstreaming with hearing peers was also stated by both Mrs. Burke and Mrs. Wynne as a primary student goal.

Mr. Connor, the Assistant Superintendent of Pupil Personnel and Instruction, expected that a healthy balance be achieved between student inclusion in the regular education classroom and their own DHH classroom. He indicated that deaf students needed contact with their deaf and non-deaf peers for socialization skills. Expectations for the DHH students were, "The same as for all students in the district - that they achieve their highest potential."

Mr. O'Hara, the Principal at the site, hoped that the deaf students would learn to read the literature that the other students were responsible for. He stated that his expectation for the DHH students was one of interaction and acceptance by the other students on campus, because, "Academic problems are linked to low selfesteem." He wanted to make the DHH students feel welcome to overcome any feelings of isolation. Classroom teachers were responsible for academic success, and since the DHH program was new to the site, he was, "Counting on County expertise and our enthusiasm to fully include them." He hoped that in the future the DHH students, through some adaptations, would be included "side by side" in the language arts curriculum which they were presently excluded from because of the phonetics based program at the school.

Bilingualism and the Deaf

Neither the administrator nor the teacher seemed familiar with mainstream bilingual education theory. When prompted by the researcher with the names of Drs. Krashen and Cummins, Mrs. Wynne said she was familiar with the names and inquired if they were associated with immersion programs. Mrs. Burke stated that she was not familiar with any bilingual theory nor with the names of Drs. Krashen and Cummins. When questioned about the application of bilingual education to the deaf, using ASL as their first, natural language and English as their second language, Mrs. Wynne stated that ASL was the native language for some deaf people, but not for others. However, she did agree that ASL was used in face to face communicative contexts, while written English was used in a formal language context.

Mr. Connor said that he was familiar with the theory behind bilingual education and that he supported it. However, he stated that it was, "Not my area of expertise." He was not familiar with the possible application of a bilingual program for the deaf, but indicated interest in learning more about it.

Mr. O'Hara, who at one time was a bilingual teacher in a migrant education program, strongly supported bilingual education. He stated that LEP students must be taught the core curriculum in their native language in order to achieve grade level status. And in spite of his lack of knowledge concerning deaf bilingualism, he said it seemed to him that it should apply to the deaf as well.

Sign Systems Used in the Classroom

Mrs. Wynne indicated support for the use of ASL in the classroom. Although the program utilized a Total Communication approach, she said that, "ASL, for all intents and purposes is the native language of the deaf." Mrs. Wynne further stated that no SEE was used in the classroom since deaf people utilized ASL to conceptualize learning. She felt that the use of SEE confused students and that it was not necessary for students to develop a metalinguistic sense to distinguish between ASL and SEE. With regard to having native ASL signers in the classroom, Mrs. Wynne felt that there was no controversy over a hearing person's ability to achieve native like fluency, and indicated that the interpreters at the site were proficient in ASL.

In contrast to Mrs. Wynne's responses, Mrs. Burke stated that the County philosophy and program emphasis was on SEE, although ASL was relied on for conceptual development. Reading situations called for, "a straight English approach." Mrs. Burke, who had been trained in the "sit on your hands" method, and who has had no formal sign language training, stated that she found the shift to Total Communication difficult since she had did not know any sign language. However, she was relieved that students were finally allowed to sign in the classroom as she had, "Struggled with children orally because they were not getting the concepts.". She stated that she learned to sign through books and that she relied on her aides to help her with ASL. However, Mrs. Burke felt that, "It's communication as long as I can communicate."

Mr. Connor stated that he was not sure which sign system was in use in the DHH program. He had been under the impression that ASL was the language of instruction in the classroom, but after speaking with several individuals, "That may not be the case."

Mr. O'Hara indicated that because the DHH program was new to the campus, "There is a whole lot I need to know, " and that he was not aware which sign system was being used. He stated that he trusted the County's expertise and that his job was to provide the needed materials and support.

Implementation of Board Policy

Upon looking up the actual County Policy, Mrs. Wynne said that a broad interpretation of PL 94-142 was implemented in the program. The Least Restrictive Environment translated into mainstreaming as much as possible into a regular classroom. Mainstreaming was common practice for the deaf population in the County Special Education Program because they are categorized as a low incidence population, and by law, can be mainstreamed up to 100% of their school day. Within the program's 2,000 square mile area, only 50 deaf and hard of hearing students had been identified. Of necessity, education within the rural and suburban-rural areas served by the program had been regionalized.

Mr. Connor stated that since the DHH students were placed on district campuses, they fell under District Policy Guidelines, but that the County had their own policy guidelines. Based upon the law, both the District and County Policies often coincided, but in the area of discipline they did not. The County did not allow expulsion of students, while the District did allow expulsion, especially when weapons were involved. Mr. Connor referred to a "street level bureaucracy" where the ideals at the district level were sometimes interpreted and implemented differently at the local site.

Mr. O'Hara said that the DHH students on his campus were treated the same as other students and that they were subject to the same disciplinary actions as well as rewards. There was no official mechanism in place for interpretation of board policy and that at times it was very awkward for him since he did not know where his jurisdiction with the DHH students ended. He said, "I guess I am the mechanism." And while there was very little direction from the administrative level, Mr. O'Hara stated that there was "all kinds of interaction" at the school among the regular education teachers and the DHH program teachers.

County and District Articulation

When questioned about the articulation in place between the County and the District, Mr. Connor stated that there was no articulation and that down the road he hoped for improved articulation, especially within the area of the District's curriculum guidelines, which had not been shared with the County. He indicated that the district's objectives, especially in the area of performance assessment, needed to be a part of the County program. Mr. O'Hara hoped for increased policy articulation and direction from the District. He did not believe that there was any articulation between the County and District at the administrative level, but felt that it was in place among the teachers in both programs at his campus. However, he was concerned that, "It only benefits the Joshua Elementary students."

Program Effectiveness and Suggestions for Improvement

Mrs. Wynne was proud of the accomplishments of the program, given its geographical and fiscal constraints. She said it was very moving for her to watch the children progress through the program, from the "cutting and "pasting activities" of preschool to their first deaf high school graduates last year. Some students did go on to college and some participated in high school sports. Again, the emphasis was on the normalization of deaf student's experiences.

Mrs. Wynne's suggestions for improvement included additional support services, especially adolescent psychological services. Since the majority of the deaf students in the program came from homes where sign language was not used, she wanted to increase parental support services, especially with regard to providing sign language classes for parents.

Mrs. Burke focused on suggestions for improvement within a mainstreaming context. She said that the ideal program would be "closer to hearing children' s." Her ideal teaching situation would be a simultaneous signing and oral language context within a mainstreamed classroom. Rather than a separate DHH program, Mrs. Burke's dream was to have the deaf and hearing mixed together in one mainstreamed classroom, with two teachers, signing and talking simultaneously.

County facilities was felt by Mr. Connor to be most in need of improvement. He stated that, "Quite frankly, it's embarrassing," and that he was "really bothered" by the fact that many of the students in the County Special Education Program were not provided with the best facilities or classrooms. More money to provide for additional small group and specialized instruction was also cited as a need. Mr. Connor mentioned that the latest school being built by the District would include "high quality" facilities for County classrooms.

Mr. O'Hara felt that the "single, most important" improvement would be increased staff inservicing which would broaden the regular education staff's knowledge about the deaf and hard of

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hearing. Because the program was new to the campus, he said that the staff suffered from a "blind knowledge base," but felt that as a whole they were headed in the right direction. However, he concluded with the question, "Are we doing what we should be doing?"

Conclusions

In spite of the fact that Mrs. Wynne, the administrator, and Mrs. Burke, the teacher, were proud of the program, their perceptions did not concur with research indicating academic achievement of deaf students lags behind that of their hearing peers. Emphasis was placed on student successes.

Mainstreaming, within the concept of Least Restrictive Environment, was in practice at the site. The California Education Code, with regard to low incidence populations, was also cited as a requirement for mainstreaming. Interaction and placement with hearing students was a desired goal and one necessitated by the low number of deaf students within the geographic area of the program. Acceptance of and enthusiasm for the program by the regular education staff and students were in evidence. Students in both programs were integrated socially and for part of the day the DHH students, through the use of interpreters, were included in academic learning contexts in spite of the exclusionary nature of the language arts program in place at the site.

There appeared to be some conflict with regard to the interpretation of local board policy. The administrator and the teacher interviewed responded with two very different interpretations as to which sign system was espoused by the County program, and as to which sign system was in use in the classroom. The local board policy did not specify in writing which should be used, only that English proficiency was a desired goal.

While both the County and District policies were based upon the law, there were areas where the policies did not coincide. However, no distinct line separating County or District Policies was in place at the site, other than regarding the issue of expulsion of County program students. Mr. O'Hara, the Principal at the site, indicated that he was the mechanism at the site for policy interpretation, but that he lacked sufficient direction from the District or the County.

At the administrative level, virtually no articulation was in place between the County and the District. The County program appeared to be isolated from curricular guidelines and documents formulated by the District. District administrators interviewed did not appear to be knowledgeable about the County program (i.e. language of instruction, deaf literacy, the difference between ASL and English). However, articulation among the teachers in both the regular education program and the DHH program was indicated by Mr. O'Hara.

Mrs. Wynne seemed to agree with research calling for consideration of ASL as the natural, primary language of the deaf. However, implementation of this was not in practice at the site. The principal medium of instruction in the classroom was a combination of SEE, oral language and some ASL. Concurrent with the literature, the teacher did not exhibit native like fluency in ASL, and expressed this in her reliance on aides to sign in ASL. The teacher's use of SEE for classroom instruction did not concur with the literature which designated SEE as a coded form of English instead of a natural language; the mediational tool by which higher cognitive skills develop. However, Mrs. Burke did indicate the need to rely on ASL for conceptual development. The teacher's experiences coincided with the findings in the literature that conceptual development through the use of oral English is difficult, if not impossible for many deaf children.

This study attempted to investigate how educational policy was implemented at a school site which housed a County Deaf and Hard of Hearing Program. According to the data collected and the documents reviewed, it would appear that there is a breakdown in communication of policy and articulation concerning curriculum between the County and the District involved in this study. Additionally, it would appear that the broad language of educational policy invites various interpretations of said policy. The program studied does experience some success. However, the divergent interpretations of policy may not provide a cohesive program for deaf students given the contrasting methodological philosophies between the administrator and the preschool teacher. The lack of articulation between the County and the District would also seem to inhibit the maximization of deaf student's potential, as well as to fully include them in the educational process.

Recommendations

While no conclusions about the effectiveness of a bilingual/bicultural approach to deaf education can be made due to lack of empirical research, pilot programs which could provide

research data should be implemented. Additionally, more data are needed regarding how language in the deaf classroom succeeds or fails as a medium of instruction.

Because the majority of deaf students come from hearing parents who do not sign, and since many hearing teachers of the deaf do not achieve native like proficiency in ASL, deaf role models should be recruited for the classroom to allow for natural acquisition of ASL. This is especially true in classrooms where teachers do not feel comfortable with their ASL signing or in mainstreamed situations with non-signing teachers where students must rely on a sign interpreter for virtually all of their academic input.

Programs which are run concurrently by more than one educational agency need to have mechanisms in place which permit articulation between agencies to take place, not only at the site level, but at the administrative level as well. Interpretation of policy, when left only to the various stake holders at the "street level bureaucracy" invites confusion and inhibits the implementation of a cohesive program.

Finally, the process by which educational research is translated into educational policy needs further examination. There appears to be a breakdown in the articulation between universities where educational theory is formed and school districts where the application of theory and research is implemented. Schools districts and universities should function as partners in empirical research and its application in the field.

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APPENDIX A

List of Interview Questions

The following is a list of questions asked to the participants in the interviews:

1. What are your expectations for your students in the program, specifically in the area of language arts?

2. Are there any special considerations given to the students in the DHH program?

3. What are the sign system(s) used in the DHH classroom?

4. What are some of the ways in which policy is implemented in the program?

5. Is there a mechanism for implementation? If so, what is it?

6. What type of articulation takes place between the District and the County?

7. What do you know about bilingual education theory? Are you familiar with its application to the deaf and hard of hearing?

8. What attempts are made to develop a metalinguistic sense in the children?

9. How would you improve the program?