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## Attitudinal changes in teachers regarding hearing-impaired students in the regular classroom

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## Attitudinal changes in teachers regarding hearing-impaired students in the regular classroom

### Abstract

Educational programs have changed immensely since the passage of Public Law 94-142. It was passed in 1975 and is referred to as The Education for All Handicapped Children Act (Johnson & Cartwright, 1979). This law requires that all handicapped children be educated to the maximum extent appropriate in the least restrictive environment. Handicapped students shall go to special classes or separate schools only when the nature or severity of the handicap is such that education in the regular class, with the use of supplementary aids and services, cannot be achieved satisfactorily (Paramount Communications, 1978).

Attitudinal Changes In Teachers  
Regarding Hearing-Impaired Students  
In The Regular Classroom

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## Attitudinal Changes in Teachers Regarding Hearing-Impaired Students in the Regular Classroom

### Introduction

Educational programs have changed immensely since the passage of Public Law 94-142. It was passed in 1975 and is referred to as The Education for All Handicapped Children Act (Johnson & Cartwright, 1979).

This law requires that all handicapped children be educated to the maximum extent appropriate in the least restrictive environment. Handicapped students shall go to special classes or separate schools only when the nature or severity of the handicap is such that education in the regular class, with the use of supplementary aids and services, cannot be achieved satisfactorily (Paramount Communications, 1978).

The integration of handicapped students into the regular classroom poses problems and insecurities for teachers. They need assistance in mainstreaming handicapped children into their classrooms while educating them and the "normal" children together. The purpose of this paper is to compare teacher attitudes before and after in-service on hearing impairment emphasizing ways to educate these children with minor adjustments in regular classroom instructional practices.

### Definition of Terms

Prior to a review of the literature, several terms will be explored in detail to aid the reader's understanding of the paper. Mainstreaming is the educational placement of handicapped children in regular classes with nonhandicapped children for the maximum time appropriate for that child. Mainstreaming should include social integration of handicapped children with their nonhandicapped peers. It should create new educational opportunities for the handicapped not lessen them (Turnbull & Schulz, 1979). The handicapped child who is recommended for mainstreaming into the regular educational programs will be evaluated by a team of professionals and the child's parents to make sure he/she is capable of succeeding there. Once a handicapped child is placed into a regular classroom, a team of professionals and the child's parents evaluate the progress made according to a specific schedule mandated by each state. These evaluations determine whether the child should remain in the regular classroom or be placed in a special classroom or school. There are many options available to handicapped children; the children are not necessarily mainstreamed full-time without special services (Paramount Communications,

1978). The educational options open to handicapped children will be discussed further in this paper.

There are many misconceptions about mainstreaming. Some of these can be eliminated by telling what mainstreaming is not. When P.L. 94-142 was implemented, it did not mean that all handicapped children would be returned to regular educational programs, or that they would be placed there with no support for them or for their teachers (Hardesty, 1979). Mainstreaming has to be an individual educational decision for each child. First the decision to mainstream or to remain in special classrooms has to be reached. After that, the amount of time a child spends in a regular classroom and in a special classroom, or with a special education teacher has to be determined in each individual case according to abilities and needs. Mainstreaming is also more than just academics. The children need to be taught to be as independent as possible and to perform as closely as possible with their normal peers (LaPorta, McGee, Simmons-Martin, Vorce, von Hippel, & Donovan, 1980).

Hearing impairment is the second word needing to be defined. The terms hearing impairment and deaf are often used interchangeably, but incorrectly. The deaf are included under the label of hearing impairment, but they are not the only group classified with that label.

There are also differences in the definitions of the words "impairment," "disability," and "handicap." An impairment is a condition in which a person has at least one missing or nonfunctioning body part. An impairment may or may not be a disability or a handicap. A disability is the manner in which an impairment affects the individual's ability to perform in life. A handicap is the psychological and emotional effect an impairment has on a particular individual. A hearing impairment is the general term which indicates a malfunction of the person's auditory mechanism (Orlansky, 1980). The Conference of Executives of American Schools for the Deaf define a deaf person as: Those in whom the sense of hearing is nonfunctional for the ordinary purposes of life (Brill, 1974). A deaf child's hearing is so impaired that it cannot be used for the ordinary purposes of life, with or without a hearing aid. Whereas, the hard of hearing (which also fall under the category of hearing-impaired), use their hearing for the ordinary purposes of life with a hearing aid.

The ordinary purposes of life are defined as the understanding of speech through hearing alone or combined with speech reading, and the ability to hear enough ordinary sounds to make sense of them (LaPorta et al., 1980). The deaf have a severe hearing loss and may



not be able to use only their hearing to learn language. Other modes of communication, as well as hearing, may have to be used by deaf people to converse with others.

The hard of hearing have a less severe loss; speech is usually their major means of learning and conversing with others. They may require amplification and remedial help with communication skills. The hard of hearing cannot hear sounds clearly but they are not shut off from sounds completely (Orlansky, 1980).

#### Review of Literature

Teachers in regular educational programs seldom possess the needed knowledge and skills to teach hearing-impaired children in their classrooms. Their insecurity about teaching the children results in a negative, or poor, attitude towards hearing-impaired students before they enter the classroom (Johnson & Cartwright, 1979). When in-service is offered and teachers have the opportunity for input, they ask for information on assessing the level of achievement of the hearing-impaired, strategies for individualized instruction, appropriate instructional materials, and ways to manage behavior problems (Turnbull & Schulz, 1979).

An attitude scale administered to 1000 public school teachers in six New England states found that

their perception of their degree of success in teaching the special needs children bore the most significant relationship to their attitudes toward the students (Larrivee & Cook, 1979). This study also found that those who worked closest with the students had the most negative feelings, whereas administrators who were most distant from the students, had the most positive. Seven variables were considered for this study. The grade level the teachers taught, the class size, the school size, and the type of school setting were regarded as environmental variables. The degree of success the teachers experienced in teaching the special needs children, the level of administrative support provided to the teachers, and the availability of supportive services were designated as the teacher-perception variables. It was found that junior high teachers had the most negative attitudes towards teaching children with special needs. Teachers in rural settings also had more negative feelings. This was attributed to their inability to feel successful when teaching the special needs students. Based on this study, it was concluded that junior high level teachers should become the target group for in-service because they exhibit the most negative attitudes. Elementary teachers were more positive about teaching special needs children, so in-

service for them could concentrate on specific skill acquisition for the special learner. It was also found that administrative support and the availability of resource services contribute to teachers' beliefs that they will be successful in teaching such children. The principal of a school is very important in helping teachers successfully implement mainstreaming (Turnbull & Schulz, 1979).

Teachers need information about children with special needs, as well as practical suggestions to use in their classroom (Orlansky, 1979). Another study was undertaken to determine whether attitudes changed more positively when given in-services about special needs only, or when given information about the handicaps combined with direct experience with such children (Johnson & Cartwright, 1979). However, research shows that few in-service programs include information and experience before the children are assigned to regular classroom teachers. Most in-services consist of only giving information to the teacher, or the teacher gains experience working with the children without any associated information on the handicap of the child.

The Rucker-Gable Educational Programming Scale was given by Johnson and Cartwright (1979) to fifty-five prospective teachers prior to, and after participating

in, a class in which half were given information only and half were given experience only. Both groups eventually received information as the experience group held weekly seminars in which students could ask anything they wished. Information about the special needs of the children had not been given to them on a regular schedule as in the information-only group. It was concluded that more research was needed to discover the best method of in-servicing teachers for mainstreaming. Moreover, it was concluded that information about the strengths and weaknesses of the children and experience with the children served to make teachers more aware of the effectiveness of mainstreaming and more knowledgeable about the capabilities of that particular handicap (Johnson & Cartwright, 1979).

Support services were also found to increase positive attitudes toward teaching handicapped children (Graham, Burdick, Hudson, & Carpenter, 1980). Regular classroom teachers do not feel they have adequate training to teach handicapped students effectively. Support services given to the regular classroom teachers should be an integral part of any program for mainstreaming handicapped students. The support service personnel should work closely with the classroom

teachers to assist them in mainstreaming handicapped children. They should have regular communication with the classroom teachers in order to educate them as to the child's strengths and weaknesses due to the handicap before the child enters the classroom. The support service personnel should also be able to provide additional assistance to teachers as the need arises (Turnbull & Schulz, 1979).

Very little research has been undertaken regarding mainstreaming children who are hearing-impaired. In Appendix A and B, there are two questionnaires that have been used as part of in-service programs with regular classroom teachers. These questionnaires deal with "special needs children" as a group, not specifically hearing-impaired children. No questionnaires were found to specifically judge teachers' attitudes towards hearing-impaired children.

### Mainstreaming

P.L. 94-142 is the Education for All Handicapped Children Act and is a legislative response to the problem of unfair educational programming for the handicapped. So mainstreaming exists because a school system simply complies with the law by allowing it, or because the system shows a genuine concern for equal, appropriate, and effective education for the

handicapped; mainstreaming some handicapped children is the most effective form of education program (Lexington School for the Deaf, 1979). Public Law 94-142 also guarantees that there will always be special classrooms for the handicapped children who need them. The law also requires federally-funded financial assistance to the state and local governments trying to comply with the law by appropriately mainstreaming handicapped children (Turnbull & Schulz, 1979). According to the Council for Exceptional Children, mainstreaming consists of four parts: (a) providing the most appropriate education for handicapped children in the least restrictive setting, (b) looking for and creating alternatives which help general educators teach children with learning or adjustment problems in the regular classroom, (c) uniting the skills of general and special educators so that all children have an equal educational opportunity, and (d) concentrating on the educational needs of the children instead of clinical or diagnostic labels (Hardesty, 1979).

Children should be mainstreamed when they can gain more academically and socially from being educated with normal children than from being in special programs. Mainstreaming children does not eliminate the need for special education classrooms. Not all handicapped

children are capable of being placed in the regular classroom full time. Mainstreaming does, however, mean that more children with handicaps will be educated with their nonhandicapped peers at least part of the day (Greenbaum, Varas, & Markel, 1980). Specifically, integration gives hearing-impaired children an opportunity to be less isolated and to participate in activities with normal children. Mainstreaming is not for every hearing-impaired child. Hearing-impaired children are usually considered ready to spend some time in the regular classroom when they have well-developed lipreading, speech, and language skills. If the child does not use speech to communicate, an interpreter needs to be provided. The child may still need help in the regular classroom, and may, therefore, have to spend some time with an itinerant teacher of the hearing-impaired or spend part of the day in a self-contained classroom (resource room) for the hearing-impaired (Orlansky, 1980).

If total mainstreaming takes place overnight, classrooms will become threatening to the child. Mainstreaming must be initiated as an orderly, systematic, step-by-step process of placing the handicapped into the regular classroom. It takes some time and some work on the part of the special education

and general education teachers to prepare the handicapped and the normal children for mainstreaming. The handicapped children are evaluated extensively before being placed in the regular classroom, so their teachers know their strengths and weaknesses. The regular classroom teachers and their classes also need to be educated about the handicap of the particular child being placed in their class. The regular classroom teacher and the support personnel also need time to coordinate their programs in order to increase the possibility of a successful integration of the handicapped into the regular classroom. It is best to take the time to find the appropriate class in which to place the child to ensure the best environment for learning. The appropriate class is one in which the regular classroom teacher has the knowledge to teach using a variety of methods and, as necessary, individualize instruction. In this type of classroom, the child can be mainstreamed successfully and will not interfere with the nonhandicapped children's academic progress (Turnbull & Schulz, 1979). The reason for mainstreaming a handicapped child into the regular classroom is to increase the academic and social achievements for all children. Each school should focus attention on itself and what they are doing to help



handicapped children mainstream successfully into the regular classroom, not what is happening in other school districts (Hauser, 1979).

### Support Services

Most teachers do not worry about what a hearing-impaired child is like until behavior or learning problems arise. Neither do they worry about specific teaching techniques to help the hearing-impaired child until the ones they are using do not work. Regular classroom teachers want to know who can help them when these questions do arise. Some of the support service personnel described in this paper may never be used by a school system and others may be seen by the itinerant, or resource room, teacher of the hearing-impaired only. Other school systems may not have anyone teaching the hearing-impaired children except the regular classroom teachers, so they may work with these support service personnel directly.

Mainstreaming requires all the educators in the school to share responsibilities and to coordinate their efforts. If everyone has different goals for the child with no knowledge of what other teachers are doing, minimal progress will be made. The child will also be confused about what is going on in school.

When children are mainstreamed they often receive individual or small group instruction from a special education resource teacher or an itinerant special education teacher. The child may be scheduled with the special education teacher either in the regular classroom or in the special education room. The resource teacher can also give suggestions to the classroom teachers on techniques to try when teaching hearing-impaired children. Regular classroom teachers are encouraged to take advantage of a resource room teacher's assistance. Asking for help is no sign of weakness but, rather, shows the teacher is concerned about the education of the handicapped child. The regular classroom teacher and the resource room teacher have to closely coordinate their instructional activities for the child because they work with the child on a day-to-day basis. Moreover, they are directly responsible for the education of the handicapped child (Turnbull & Schulz, 1979).

There are a number of support personnel who work with hearing-impaired children on a less regular basis. The audiologist measures the children's hearing on an audiometer and plots it on an audiogram. The audiologist is the person to call if the hearing aid or the special hearing equipment used in the classroom

malfunctions. Interpreters translate what people are saying to the hearing-impaired child, who communicate with sign language, into sign language. The interpreter also translates the child's signing into verbal communication (Orlansky, 1980). A speech-language pathologist is a person who conducts screening, diagnosis, and treatment of children and adults with communication disorders. A speech-language pathologist is sometimes referred to as a speech clinician or a speech therapist. Hearing-impaired children usually have speech two to three times per week, twenty minutes per session, during the school day. An otolaryngologist is a medical doctor who conducts screening, diagnosis, and treatment of ear, nose, and throat disorders (E.N.T). An ears, nose, throat doctor also performs surgery to correct those disorders. An otologist is an otolaryngologist who works exclusively in the area of ear disorders. Hearing-impaired children might see an otolaryngologist but rarely do the regular classroom or hearing-impaired teachers have any contact with these doctors (LaPorta et al., 1980).

After a regular classroom teacher realizes that there is help available to educate hearing-impaired children in the regular classroom, questions about hearing impairment arise. It is also important to

remember that hearing-impaired children are children, so they will behave as such. Each one is unique, has strengths and weaknesses, and reacts to situations on an individual basis. So hearing impairment can be explained but individual children should not be forgotten when relating to them.

### Hearing Impairment

Hearing is measured by an audiometer and this measurement is called a hearing test. The test is a measure of loudness, or decibels, and is charted on an audiogram. The test determines how loud sound must be before a person can hear it. Loudness is referred to as intensity and the pitch, or the highness and lowness of the sound, is referred to as frequency. Sounds cover a range of frequencies and do not fall in the same frequency. The English language sounds fall between 300 and 3000 cycles per second. So the hearing-impaired may hear some sounds of the English language but not others (Brill, 1974).

There are four categories of hearing impairment: mild, moderate, severe, and profound. It is also important to remember that just because two hearing-impaired children have a moderate loss does not mean they hear, or do not hear, the same sounds. Each person has a different kind of loss and hears, or does not

hear, different frequencies. Also each person reacts to a hearing loss in their own individual way (Turnbull & Schulz, 1979). Two people with the same degree of loss may not hear sounds with the same clearness; this affects what is understood by each. The degree of loss does not tell what the child's potential for hearing, or listening, may be. Knowing what the degree of loss is does not mean you know how a child functions on a daily basis with it. Only how a child functions on a daily basis tells how a child can perform with the hearing that is left (LaPorta et al., 1980).

When a child has a mild loss, learning problems usually do not develop. Sometimes the child will wear a hearing aid, but not always. The child's speech may be normal but help with vocabulary development may be necessary. Also seating the child closest to where the teacher delivers lectures is helpful. A child with a moderate loss can hear loud conversation within three feet, but meanings are often garbled. This child will probably be aided but will still need to see a speaker's lips outside a three foot range to understand most of what is being said. A child with a severe loss is considered to be educationally deaf. There is, however, some residual hearing present. Although there is some hearing present, the child has to be taught how

to use it. The child will have to wear aids and can only distinguish the differences between loud noises; he/she may be able to distinguish some words that are spoken close to the aid. A child with a profound hearing loss cannot hear words even when wearing a hearing aid. The child can only feel vibrations of music and loud noises (Cratty, 1980).

Some hearing losses are caused when the outer or middle ear prevents sound vibrations from reaching the inner ear. Others are caused by damage to the inner ear, to the auditory nerve, or to the brain (Cratty, 1980). When the outer or middle ear is the cause of the loss it is called a conductive loss; these can often be corrected with medication or surgery. A conductive hearing loss is caused by infections which block the middle ear with fluid, a ruptured eardrum, wax blocking the eardrum, deformity in the outer ear canal, or damage caused by a foreign object being put into the ear. When the inner ear or the auditory nerve is the cause of the hearing loss it is called a sensori-neural loss. A sensori-neural loss is caused by the mother having certain diseases during pregnancy, heredity, childhood diseases caught by the child, viral infections, a prolonged high fever, physical damage to the head or the ear, or excessive or intense noise. Sensori-neural loss

is permanent and cannot be corrected at this time (LaPorta et al., 1980; Orlansky, 1980).

Most hearing-impaired children who are mainstreamed into the regular classroom wear a hearing aid of some kind. A hearing aid is a small machine that amplifies sound. But a hearing aid does not make sound clearer; the hearing-impaired cannot hear as clearly or as much as the normal hearing person does even with a hearing aid (Orlansky, 1980). Also hearing aids make all sounds louder, not just people's voices. Background noises are amplified along with foreground noises by the hearing aid (Turnbull & Schulz, 1979).

Some children, especially younger ones, wear a body aid in a harness. Body aids are more durable and easier for younger children to handle. But as the children get older, they do not want to be different in any way, so they usually wear ear-level aids behind the ear. These aids can be hidden by the children's hair so, just by looking at them, no one can tell that the person is hearing-impaired.

Five parts make up every hearing aid or hearing device regardless of where it is worn. A microphone in the hearing aid body picks up sound. Batteries also are put into the hearing aid body which provide the power to make sound louder. A receiver is connected to the

body of an ear level aid and to the ear mold and adapts sound so the ear can hear it with the particular loss the person has. An ear mold is fitted into the hearing-impaired's ear and connected to the receiver and carries sound into the ear. Some kind of cord or tubing connects the receiver to the ear mold (LaPorta et al., 1980).

Other terms that need explanation about the hearing-impaired are residual hearing, lipreading, interpreter, sign language, fingerspelling, total communication and oral communication. Residual hearing is the amount of hearing an individual has left. The majority of hearing-impaired people have some residual hearing. Very few people are totally deaf. Regardless of the amount of residual hearing that it left, it needs to be developed so the children learn to use it fully. Learning to use hearing fully, even though it is impaired, is referred to as auditory training (Giangreco & Giangreco, 1970; Orlansky, 1980). Hearing-impaired children also comprehend spoken language through lipreading or speechreading. Lipreading is using the information gained from watching the facial expressions, throat muscles, lips, and tongue placement of the person speaking, in order to understand what they are saying. Lipreading is an acquired skill; some people learn how



to lipread and some do not. There seems to be no rhyme or reason as to why some can learn how to lipread and some cannot. An interpreter is a person who translates the spoken word into sign language for the hearing-impaired and the hearing-impaired's sign language into the spoken word for whomever the hearing-impaired is speaking to. Sign language is a system of communication. Sign language consists of specific hand and body movements which have a particular meaning. There are different systems of signing. The child usually follows the same sequence of developing listening and talking (signing) skills as do normal hearing children, but not always at the same rate (LaPorta et al., 1980). Fingerspelling, or the manual alphabet, is the formation of finger configurations for each letter of the alphabet which are put together to form words. Total communication is a combination of speech, residual hearing, fingerspelling and sign language used when communicating. Oral communication is communicating with speech, language and lipreading; oral communication is much like a normal hearing person's communicating. Both total and oral communications follow the same developmental sequence as do a normal hearing child's communication skills (Turnbull & Schulz, 1979).

### Teaching Techniques

There are no absolutes -- wrongs or rights -- in teaching hearing-impaired children as each of them is an individual. Each one is unique with his/her own strengths and weaknesses. The hearing-impaired need to be challenged by their teachers, and others working with them, like any other child (Orlansky, 1980). All people, whether they are handicapped or not, share the same basic human needs. It is important to remember, and to point out to other children in the classroom, how much the hearing-impaired are like normal hearing people (Paramount Communications, 1978).

There are some differences between hearing-impaired and normal hearing people, though, to remember. All hearing-impaired people will have some kind of communication difficulty. They will have some problems in expressing their ideas and some in understanding language (Orlansky, 1980). Communication will be a hearing-impaired person's biggest problem because they have poor language and vocabulary; this prevents them from understanding everything that is being said to them. They do not necessarily hear, or lipread, everything that is being said to them either. Only about thirty percent of a verbal message can be understood by lipreading. This is because many of the

sounds look the same on the lips (p, b, m) and many sounds cannot be seen at all on the lips (h, k, g, ng). Vowels are the easiest sounds to lipread. The hearing-impaired do a lot of guesswork when lipreading; they oftentimes do not have a good enough language foundation to help them figure out what is being said (Orlansky, 1980).

A hearing-impaired person's major handicap is the lack of language brought on by his/her loss of hearing. People learn language through hearing it. The hearing-impaired do not hear much language; when they do hear it, they hear only fragmented parts. The development of an adequate vocabulary is also a major difficulty for the hearing-impaired; just acquiring word meanings does not give a person language. A person must know how to use that vocabulary in conjunction with other words so that they have particular meanings. People must also learn the many differences in the meanings of the words and the various ways of using them (Brill, 1974). The lack of language also presents difficulties in using graphophonic, semantic, and syntactic cue systems when reading because they all depend on sounds or language; neither of which the hearing-impaired has heard to the utmost.

Specifically the hearing-impaired, as a group, generally have smaller vocabularies. A normal hearing kindergartner has a speaking vocabulary of two thousand words, but a hearing-impaired kindergartner has a speaking vocabulary of only two hundred fifty words. This vocabulary gap widens as the child gets older. This lack of vocabulary makes it difficult for the hearing-impaired child to construct meaning using semantic cue systems. The hearing-impaired also have difficulty using the syntactic cue system because it depends on sentence formations for cues. The only sentence formations the hearing-impaired generally master are questions, negations, and conjunctions. The hearing-impaired do not hear all the sounds in the English language, so they do not use word attack skills of which the graphophonic cue system consists (Stoefen, 1980).

Hearing-impaired students need to be seated closest to the source of teaching, so they can make the utmost use of residual hearing and amplification. Directions need to be given loud and clear, without other environmental noises covering them up. Fans, heaters, and aquariums are a few of the things found in classrooms that cover up the teacher's voice no matter how close the hearing-impaired child is seated to the

instruction (Degler & Risko, 1979). If the hearing-impaired student has an interpreter, then that person should be seated next to the child. Hearing-impaired children sometimes fail to hear fire alarms, tornado whistles, or announcements given on the intercom; therefore, flashing lights are frequently installed to warn them of an emergency. Sometimes other students are assigned to make sure that they go to safety during an emergency (Orlansky, 1980).

Peer helpers are good for hearing-impaired children, but they should just HELP THE CHILD WHEN NEEDED. Children have a habit of smothering their classmates with attention when they need help; that should not be allowed. The hearing-impaired child should be expected to do as much as possible on his/her own; this level of need is different for every child. Peer helpers should make sure that the hearing-impaired child knows what is going on in class and help to explain things the child does not understand. Children should not, however, overprotect the hearing-impaired. If too much is done for the child, the hearing-impaired will think they are unable to do anything (LaPorta et al., 1980).

Also hearing-impaired children are characteristic of being more physical than normal hearing children.

They do not hear, so they attempt to get the attention of others by hitting. Since they do not have adequate language abilities, they also tend to display their anger physically instead of by using words. This can be understood, but not tolerated. Hearing-impaired children need to learn how to get others' attention and how to deal with their anger in socially acceptable ways. Appropriate behavior is expected in all instances (LaPorta et al., 1980).

Hearing-impaired children may fatigue more quickly and have shorter attention spans than normal hearing children because they strain to hear everything. They are not being naughty or are they bored; they are just tired of trying to listen or to lipread everything that is being said. Lessons may have to be paced differently, or short breaks taken, so the hearing-impaired can listen to the utmost and not tire so much (Degler & Risko, 1979).

Some things to remember when talking to the hearing-impaired or when listening to the talk flow. The hearing-impaired do not talk correctly because they have never heard what the voice sounds like, their own or anyone else's. Only one third of what is being said to a hearing-impaired person can be understood by lipreading what they do not hear (James Stanfield Film

Association, 1977). We can assist the hearing-impaired in their hearing if we always look at them when speaking to them; in this way, they do have the opportunity to read lips and facial expressions. If the hearing-impaired person does not understand what is being said, repeat it and then say it another way. Sometimes the person may even need to be shown what is being talked about. If the person can read, a quick note can also be written explaining what is being said (Lexington School for the Deaf, 1979).

The most important thing for a teacher to remember when teaching hearing-impaired children is to have the same academic, social and behavioral expectations for that child as you do for other children in the class. They will have some academic problems due to their hearing loss; their language development may be directly affected but their behavior should match that of their hearing peers.

### Conclusion

In conclusion, not all of the information given in this paper should be given to regular classroom teachers right away. It is important not to overload teachers with information they will not need the first day the hearing-impaired child walks into their classroom. Some guidelines should be agreed upon by the regular

classroom teachers and the person doing the in-servicing as to how much information can be handled at the first in-service and how many in-services should be held after the initial one. Also questions of who should attend these in-services need to be answered. Teachers who do not have hearing-impaired children in their classrooms may be interested in the information, but will probably not retain it and will have to be in-serviced again when they actually have a hearing-impaired child in their classroom. Also the children, in the classroom that the hearing-impaired child is coming into, will have questions, so they should also be educated. More research is needed to determine what information is best, how much information should be given, when the information should be given, and who should be given the information in order that we might more successfully mainstream hearing-impaired children into the regular classroom.



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## Appendix A

The following questionnaire was obtained from Graham, Burdg, Hudson, and Carpenter (1980). Teachers were instructed to circle their response to all of the following questions in this manner:

YES 1 2 3 4 5 6 7 8 9 10 NO

1. Do you notify the resource teacher when a method you have been using does not appear to be effective with the student any longer?
2. Do you and the resource teacher conference with the parents of the exceptional child?
3. Are you able to remediate the exceptional child's educational deficits while he is in your classroom as well as work with the other children?
4. Does the resource teacher help you in offering suggestions to the parents for working with the child at home?
5. Do you believe that the exceptional child gains more academically by staying in the mainstream?
6. Do you believe that the exceptional child gains more socially by staying in the mainstream?
7. Are you able to accurately identify the specific deficits of the exceptional child's learning patterns without the aid of the resource teacher?

8. Are you able to accurately identify the specific strengths of the exceptional child's learning patterns in your classroom without the aid of the resource teacher?
9. Are you able to interpret individual diagnostic tests on the exceptional child without aid from the resource teacher?
10. Are you able to correlate materials from the resource room with the specific needs of the exceptional child in your classroom?
11. Is the resource room available to you for checking out materials to use in your room?
12. Does the resource teacher work to remediate the educational deficits of the exceptional child while working with him/her in the resource room?
13. Do you feel free to seek out the resource teacher for obtaining advice in dealing with the academic program of the exceptional child while in your room?
14. Do you believe that the exceptional child in your classroom restricts the program of the other children?
15. Do you believe a more effective means could be utilized in mainstreaming the exceptional child than the resource room?

16. Do you have enough time in your schedule to locate materials for the exceptional child as well as plan for the other children?

17. Do you believe the children who are mainstreamed would be happier in a self-contained special education classroom?

## Appendix B

The following questionnaire was obtained from Larrivee and Cook (1979). The directions given for this teacher opinion questionnaire were: Please circle the number under the column that best describes your agreement or disagreement with the following statements. There are no correct answers; the best answers are those that honestly reflect your feelings. The scale used was:

SA = Strongly Agree    A = Agree    D = Disagree

SD = Strongly Disagree    U = Undecided

1. Many of the things teachers do with regular students in a classroom are appropriate for hearing-impaired students.
2. The needs of handicapped students can best be served through special, separate classes.
3. A hearing-impaired child's classroom behavior generally requires more patience from the teacher than does the behavior of a normal child.
4. The challenge of being in a regular classroom will promote the academic growth of the hearing-impaired child.
5. The extra attention hearing-impaired students require will be to the detriment of the other students.

6. Mainstreaming offers mixed group interaction which will foster understanding and acceptance of differences.
7. It is difficult to maintain order in a regular classroom that contains a hearing-impaired child.
8. Regular teachers possess a great deal of the expertise necessary to work with hearing-impaired children.
9. The behavior of hearing-impaired students will set a bad example for the other students.
10. Isolation in a special class has a negative effect on the social and emotional development of a hearing-impaired student.
11. The hearing-impaired child will probably develop academic skills more rapidly in a special classroom than in a regular one.
12. Most hearing-impaired children do not make an adequate attempt to complete their assignments.
13. Integration of hearing-impaired children will require significant changes in regular classroom procedures.
14. Most hearing-impaired children are well-behaved in the class.
15. The contact regular-class students have with mainstreamed students may be harmful.



16. Regular classroom teachers have sufficient training to teach children with hearing impairment.
17. Hearing-impaired students will monopolize the teacher's time.
18. Mainstreaming the hearing-impaired child will promote his/her social independence.
19. It is likely that a hearing-impaired child will exhibit behavior problems in a regular classroom setting.
20. Diagnostic-prescriptive teaching is better done by resource room or special teachers than by regular classroom teachers.
21. The integration of hearing-impaired students can be beneficial for regular students.
22. Hearing-impaired children need to be told exactly what to do and how to do it.
23. Mainstreaming is likely to have a negative effect on the emotional development of the hearing-impaired child.
24. Increased freedom in the classroom creates too much confusion.
25. The hearing-impaired child will be socially isolated by regular classroom students.

26. Parents of a hearing-impaired child present no greater problem for a classroom teacher than those of a normal child.

27. Integration of hearing-impaired children will necessitate extensive training of regular teachers.

28. Hearing-impaired students should be given every opportunity to function in the regular classroom setting where possible.

29. Hearing-impaired children are likely to create confusion in the regular classroom.

30. The presence of hearing-impaired students will promote acceptance of differences on the part of regular students.