A Model Communication Center for Deaf Students at a
Middle School/High School Level

An Honors Thesis (HONRS 499)

by

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Purpose of Thesis

The development of this model Communication Center within a hypothetical school for the deaf outlines the important aspects of language and communication needed by hearing impaired students to adequately mature emotionally, educationally, and socially. By establishing this model Communication Center, future teachers, parents, and professionals working with deaf students will be able to refer to specific ideas and/or gain a better understanding of the language and communication needs of the hearing impaired student. This model may provide other schools a basis on which to build a similar language and communication center within their own programs.
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Communication Center Purpose

Hearing impaired and deaf students at the middle school and high school levels are enrolled in the Communication Center for the development, enrichment, and/or refinement of various areas within the realm of language and communication. Because the students will eventually be faced with communicating in the outside world, the staff of the Communication Center feel it is important for the students to be educated and prepared for everyday events that may happen in their lives after they graduate and become independent members of society. By providing individualized attention, students are able to work on the specific areas in which they need help that may be overlooked in the normal classroom environment. Certified speech clinicians, audiologists, language specialists, and teachers of the deaf work within the Communication Center to ensure that the students get the best possible education. Deaf and hearing professionals are employed to offer a more complete education for the students.
General Procedures

Students are enrolled in the Communication Center if specific communication and language goals are outlined in their Individualized Educational Plan (IEP). The middle school and high school students enrolled meet with their communication teacher for 30 minutes of their study hall hour every day or for the full hour every other day depending on their need. Other timing arrangements may be made with the approval of the Communication Center, the class teacher, and the student's academic advisor.
Speech

Speech has long been a factor of deaf education and also of controversy. Because the staff of the Communication Center work on an individualized basis with their students, their philosophy on speech development is different with every student. The staff in no way force their students to develop speech. However, they wholeheartedly support it for students who want or will benefit from speech therapy. They support what is best for each child. By providing speech and making it available, the staff of the Communication Center are better able to meet the needs of the students enrolled.

Various aspects of speech therapy are available in the Communication Center. Traditional speech therapy, which includes articulation tests and drills, can be utilized to fit the needs of many different students. For example, a student may need intensive training in producing final consonants, articulating consonant blends, or vocalizing specific phonemes. With the one-to-one attention that the student gets in the Center, the teacher and student are able to focus on the specific targets at the specific levels for a speedier improvement and a higher achievement rate. Likewise, a student may need refinement in the suprasegmental areas of speech which include intonation, stress, rhythm, and juncture. To better adapt to and fit in society,
students enrolled for speech need to learn the natural flow of speech. For example, a student may have beautiful articulation and skill in speaking but still have problems with speaking rate and intonation. The communication teacher would offer the enrichment and refinement needed to improve this student's speech communication.

In addition to the traditional aspects of speech therapy, the Communication Center offers education in areas of speech communication that are often overlooked. For example, speaking manners may be an area in which a student needs help. Proximity, interrupting, and vocabulary choice may prove to be very confusing for a deaf adolescent. By role-playing and visiting public places, the student is able to learn by actually doing. Therefore, he or she is familiar with and better prepared for polite communication. Formal and informal speaking situations may also be confusing for speech students. Not only should the student know how to pronounce and articulate "sir," but he should also know when and where to say it.

The teachers in the Center realize the importance of speech in the education of some hearing impaired and deaf students. Likewise, they acknowledge that many students may not benefit from or desire speech remediation. However, for the students who enroll in the speech program, care is taken to educate them in all areas of speech communication. When the student steps out into the hearing world to become an independent member of society, the staff of the Communication Center want him or her to be prepared.
Speechreading

A speechreading program is offered in the Communication Center for students who are able to make use of their residual hearing or who may show a high potential for speechreading improvement. Because there are many factors that may hinder a student's speechreading ability, each is worked on until the student is able to compensate for or overcome it. For example, a student may have difficulty speechreading someone who has a beard or mustache. Through video, role-playing, or visiting public places, the student can practice and develop better speechreading skills until he or she is able to overcome the hindrance. Similarly, lighting, distance, facial expressions, gender, and over/under-emphasis of speech movements may all be areas that make speechreading more difficult. The communication teacher would focus on these areas one at a time or as a group depending on the student's need.

By providing practice activities for speechreading improvement, the teachers are able to enrich the communication skills of the students who are enrolled. Students who become aware of all possible communication channels can benefit from all modes when communicating in society. Thus, the staff of the Communication Center become one step closer to their goal of preparing students for life.
American Sign Language

American Sign Language (ASL) is offered in the Communication Center for those students new to the school who may have transferred from oral or mainstreamed environments and are unfamiliar with ASL. As new students enter their classes and begin the adjustment process in the new environment, they may need help with some basic sign language vocabulary or ASL grammar. By providing an ASL program, the communication teachers are able to help ease the students' adjustment. This, in turn, helps them socially and emotionally, as well as educationally.

The staff of the Communication Center realize that most students learn ASL from their peers, teachers, and other Deaf adults in the community and that, therefore, the enrollment for the ASL program may be low. However, they feel that the ASL program is worthwhile to new students in a transitional period and can be put to good use. The communication skills offered in the Center are to benefit everyone.
TTY/Telephone Use

The Communication Center has several operating TTY's and telephones. As students mature and begin to use TTY's, assistance may be needed in learning basic information. For example, students who come from hearing families and are unfamiliar with TTY's may enroll in the Center to learn the codes used, turn-taking skills, or basic operation. Students who have enough residual hearing with amplification to use regular telephones may need help developing a signal system when calling a hearing person. For example, a student may wish to identify his hearing impairment and inform the other party of the system he or she will use. By asking a series of yes/no questions and having the other party answer "yes yes" or "no," the hearing impaired student is able to order a pizza, make a doctor's appointment, or any other everyday transaction over the telephone. Other systems similar to this can be established for different students with different needs. Because the use of a telephone and/or TTY is an important and effective mode of communication, the establishment of this program is necessary.
Social Communication

Though each program within the Communication Center is important for communication education, the social communication program provides vital skills that every hearing impaired and deaf student should learn. Included in the program are activities and situations that are prominent in everyday life. Though most of the activities are through role-playing, field trips are taken to reinforce what the students have learned and to provide opportunities for the students to practice their newly developed skill or ability. In every public business or facility, hearing impaired students must decide which mode of communication to use to relay their message or gain information. Students who are enrolled in the Center practice these everyday situations to learn what to expect and how to communicate most effectively.

Students who are not enrolled in the Center, however, can benefit from this program as well. Social communication coordinators can work directly with classroom teachers for special occasions to plan social activities that deal with the class subject and communication. For example, if an English class is working on a research paper, the communication coordinator can meet with the class as a guest speaker to discuss effective communication in a public library. What questions to ask, how to ask them appropriately, and what kind of answers to expect can
all be discussed in advance to better prepare the students for that particular situation. Likewise, the communication coordinator may work with a math class on effective communication in a bank. By meeting with the class prior to the field trip, communication styles and expectations can be discussed before the students are faced with a strange, new situation. If the student is made aware of some of the possible questions that a librarian or bank teller may ask, he or she may feel more comfortable and confident in speechreading them, speaking with them, or communicating in whatever method he or she chooses. Similar activities can be scheduled with the dorm directors to benefit the residential students as well. Because the residential students do not have the opportunity for this type of social learning with their families as often as day students, measures can be taken to provide social communication experiences after school.

All activities within this program stress the importance of effective communication and self-confidence. The students practice through role-playing and apply what they have learned through field trips. Some of these activities include restaurants, banks, retail shopping stores, grocery stores, medical offices, job interviews, license branches, laundromats, libraries, barber shops, law offices, mechanic shops, and other important establishments in society. Though the students enrolled in the Center receive individualized attention on specific areas of social communication, all students can learn and benefit from the program.
Other Programs

The Communication Center has additional programs to aid in the education of its students. Some of these include reading, writing, vocabulary, and syntax. Though these areas may be included in a typical English class, the communication teacher offers reinforcement in the areas that directly relate to communication. In many cases, the communication teacher works together with the classroom teacher to help the students who are enrolled in these programs.

The reading program offers remediation and reinforcement in reading for communication purposes. For example, a student may have difficulty reading magazines, newspapers, billboards, or street signs. Rather than only emphasizing books, the student enrolled in the Center would practice reading information in various contexts. This might help the student locate a job in the classified ads and find the office using street signs. By focusing on the student's specific need, the communication teacher helps to increase the communication options available to the student. Other areas of communication reading may include letters, memos, notes, and closed caption machines.

The writing program also stresses communication options through writing. Many times a deaf person will have to resort to writing notes to communicate with hearing people. By offering
the writing program, the Center is able to offer help for students to improve their writing abilities. Areas that may be focused upon include letter writing, resume writing, writing directions, and typing.

Vocabulary and syntax development may also be assisted in the Communication Center. For example, a student may have a list of vocabulary words from another class that are difficult for him or her. In the Center, he or she can get extra help in pronouncing, reading, speechreading, and writing the words as well as learning the meanings. Another student may need help learning proper word order and punctuation for formal letter writing. In the Communication Center, the student is able to get the one-on-one attention he or she may not get in the classroom.

Many times students who are not enrolled regularly in the Center occasionally need this kind of additional reinforcement. If this occurs, the staff of the Communication Center are able to locate and suggest a peer tutor to help with certain areas. If the student needs regular aid in these areas, he or she is put on the list for regular enrollment. Because the areas are often covered in regular language classes, these programs are mainly for severe cases or tutorial purposes.
Media and Materials

The Communication Center has an array of media and materials available to it for the education of its students. In addition to the traditional games, worksheets, books, and auditory trainers, the Center has telephones with TTY’s and a television with a closed caption machine. A video camera and VCR are also available to use with the television. These media can be used for many purposes. Students are able to practice using the telephone for speech activities, using the TTY for reading activities, and using the video camera and television for speechreading activities. The Center also has computers with various speech programs, language programs, and pitch/intensity programs. Typewriters are also used for writing practices and for manual dexterity drills for beginning signers. Stereos and tape recorders are also used for listening exercises and speech therapy. The availability of such media and materials is very important in the education of communication skills, and the Communication Center staff put them to good use. The ability for them to be used for so many different activities for the students' individualized lessons makes them a valuable resource.
Tests and Measurements

Because the students enrolled in the Communication Center have specific goals in their IEP's, a means of measuring their progress must be established. Most tests used in the Center must be teacher-made tests because of the specific individualized lessons used with the students. However, the Communication Center staff use some standardized tests when specific scores are requested.

For the segmental aspects of speech production, the Center has The Photo Articulation Test (PAT). The PAT uses visual stimuli for testing articulation at the word and sentence levels. The vocabulary used is familiar to deaf children, and reliability and validity data are available. The scores for the test can be compared to hearing and/or deaf norms (Pendergast et al., 1969).

The testing of suprasegmental speech production is conducted with the Prosodic Feature Production Test. The test consists of six sentences that must be read aloud using stress, pause, and rising intonation. Normative data are available for deaf children (National Technical Institute for the Deaf [NTID], 1980).

The intelligibility of speech production is tested with the Speech Intelligibility Test for Deaf Children. It was designed specifically for deaf children, and the score reveals
an Intelligibility Index. No norms are provided, but interrater reliability data are available (NTID, 1980).

Another speech test used for expressive language is the Utah Test of Language Development. No norms are available, but it can be used as a standard test for the staff to compare scores among the students. Also, it can be administered in more than one sitting for students with short attention spans or other testing handicaps (Mecham, Jex & Jones, 1973).

The segmental aspects of speech reception are tested with the Word Intelligibility by Picture Identification (WIPI). The WIPI was developed for deaf children. It tests at word level, and reliability and validity data are available. Established norms for the deaf are provided (Ross & Lerman, 1971).

The suprasegmental aspects of speech reception are tested with the Prosodic Feature Reception Test. Like the production test, it tests stress, pause, and rising intonation. It is also quick to administer. Norms for deaf children are provided (NTID, 1980).

Other areas tested include the semantics and syntax of English language development. For the testing of semantics, the Rhode Island Test of Language Structure is used. It was developed for deaf children, and it provides norms for deaf and hearing children. The pictures are good, actions in the pictures are easily understood, and scoring is easy (Thompson et al., 1987). Syntax is tested using the Test of Syntactic Abilities TSA. This test was also designed for deaf children and provides norms. The TSA tests nine basic syntactic structures and includes
a screening portion and a diagnostic portion (Thompson et al., 1987).

To test the speechreading abilities of students who have a third grade reading level or above, the Center has the Barley-CID Everyday Sentence Test. Vocabulary is appropriate, and comparative data for deaf individuals are included (Jeffers & Barley, 1971). For students who have a reading level of third grade or below, the Communication Center has the Costello Test of Speechreading. This test has a word portion and a sentence portion. Words and concepts are appropriate, and comparative scores for deaf individuals are provided (Jeffers & Barley, 1971).

Though the Communication Center has these tests, other standardized tests or teacher-made tests are used if they are more appropriate for the student. These tests, however, were chosen because of their development specifically for deaf children or the availability of deaf norms. For the other areas of communication, such as ASL, telephone use, and social communication, standardized tests are not available. Therefore, the staff of the Communication Center develop their own tests. Reading and writing are tested more extensively within the English department and, therefore, are not tested regularly in the Center.
List of Tests


References


Sample Lesson Plans

The following sample lesson plans are examples of ideas that may be used within the Communication Center. Though actual lesson plans will be more specific and detailed for each individual child, these provide the reader general ideas of activities and lessons common to the Center.
Speech Lesson Plan

Behavioral Objectives

The student will be able to articulate the /sk/ blend in the initial position at the sentence level with 80% accuracy.

Content

-the articulation of the /sk/ blend
-the effects of coarticulation

Procedures

Teach: The teacher will present cards with the target words on them in written and picture form to review the words and the articulation of the /sk/ blend in various contexts.

The teacher will articulate each word, describing the articulatory movements if necessary.

Practice: The teacher will present the cards one at a time.

The student will articulate each word.

This process will continue until the student correctly produces the blends.

Apply: The teacher will present pictures with written sentences that contain the target words.

The student will read each sentence articulating the /sk/ blend in its various contexts.

This process will continue until the student reaches at least 80% accuracy.

Follow Up

The student will create his or her own sentences or story containing the target words and read them or it aloud to the teacher.

Materials

-cards with the target words and pictures
-cards with sentences and pictures
-paper and pencil for student's own work

Target Words
skates
sky
ski
school
score
scope
scooter
skunk
skirt
skip.
scar
scary

Sentences
1. I lost my skates last week.
2. The sky is dark and cloudy.
3. I want to learn to ski.
4. Her school is closed.
5. The score is wrong.
6. He bought some Scope.
7. His scooter is red.
8. She saw a skunk.
9. Mom's skirt is torn.
10. He knows how to skip.
11. I have a scar on my leg.
12. That mask is scary.
Speechreading Lesson Plan

Behavioral Objective

The student will be able to speechread common expressions at the sentence level with 80% accuracy.

Content

-the meaning or purpose of common expressions
-the prevalence of these expressions in conversation
-the appearance of them on the lips

Procedures

Teach: The teacher will discuss the purpose or meaning of the common expressions to be used in the lesson.

The teacher will present cards with one expression on each card and say the expression unvoiced to familiarize the student with the target expressions.

Practice: The teacher will say one expression at a time unvoiced.

The student will point to the correct expression from a list of target expressions.

The teacher will then repeat the exercise using voiced expressions.

The student will again point to the correct expression from the list.

Apply: The teacher will say a sentence containing an expression unvoiced.

The student will identify the expression or expressions used.

The teacher will continue this until all expressions have been identified.

The teacher will then say the sentences one at a time, and the student will repeat the entire sentence.

The teacher will repeat the sentence three times if necessary.
Follow Up

The teacher will repeat the lesson within different contexts (i.e. various lighting, different distances, various facial qualities such as too much lipstick or a beard, etc.)

Materials

-cards with target expressions
-list of target expressions
-list of sentences

Target Expressions

um
you know
like
so
anyway
well
I don't know
ok
right
really

Sentences

1. I'm outside, right, and this man starts talking to me.
2. So, how are you today?
3. I don't know, I'm just tired.
5. I, um, can't go tonight.
6. That test was hard, you know?
7. He is like so cute.
8. Well, I don't know, maybe tomorrow.
9. I'm driving, ok, and my car dies.
10. She is married, really.
11. I'm like mad, you know?
12. She is, um, the new teacher.
13. Well, anyway, he is gone now.
14. Really, that is my mom.
15. We are going home, right?
16. Ok, I'm finished.
American Sign Language Lesson Plan

Behavioral Objective

The student will be able to sign and comprehend yes/no questions and wh- questions in American Sign Language with 80% accuracy.

Content

- question formation in American Sign Language
- common vocabulary used with questions

Procedures

Teach: The teacher will demonstrate the signs for each vocabulary word. (yes, no, who, what, where, when, why, how, and how much)

The teacher will demonstrate the facial expressions for yes/no questions (eyebrows up) and for wh- questions (eyebrows down).

Practice: The teacher will sign the vocabulary words one at a time.

The student will choose the correct word for each sign from a list.

This process will continue until each sign has been identified.

The teacher will present cards with the vocabulary words written on them one at a time.

The student will sign the sign for each word.

This process will continue until each sign has been signed.

Apply: The teacher will ask a series of yes/no and wh- questions.

The student will correctly identify what kind of question is being asked.

The teacher will ask another series of yes/no and wh- questions.
The student will then answer the questions using the vocabulary words and facial expressions as clues.

This process will continue until an 80% accuracy rate is achieved.

The teacher will present cards with questions written on them one at a time.

The student will read and sign the questions with correct vocabulary and facial expressions.

This process will continue until an 80% accuracy rate is achieved.

Follow Up

The teacher and student will take turns conducting mock interviews that contain yes/no questions and wh-questions.

Materials

- list of vocabulary words
- cards with vocabulary words
- cards with various questions

Vocabulary Words

yes
no
who
what
where
when
why
how
how much

Questions

1. Who is your teacher?
2. Are you happy?
3. Where do you live?
4. Are you going out tonight?
5. Are you ready for summer?
6. How are you today?
7. What is your favorite color?
8. When is your birthday?
9. How much does pop cost?
10. Do you like your classes?
11. Does your mom work?
12. Why are you here?
13. Is your family deaf?
14. Am I bothering you?
TTY/Telephone Use Lesson Plan

Behavioral Objective

The student will be able to successfully use the TTY/telephone relay service in his or her community to contact an outside business.

Content

-the process of using a TTY/telephone relay service
-the benefits of telephone communication

Procedures

Teach: The teacher will review the operation of a TTY if the student so needs.

The teacher will discuss the process of using a TTY/telephone relay service.

The teacher will explain the process of ordering from the outside business (a department store's catalog service).

The teacher will discuss the benefits of using a telephone for communication.

Practice: The teacher will position two telephones and TTY's on opposite sides of a partition wall or in two separate rooms.

The student will call the other extension and ask for services.

The teacher, acting as the relay operator and catalog sales representative, will key back for more information.

This process will continue until the student has successfully ordered from the mock catalog department using the mock relay service.

The teacher and student will repeat the practice simulation adding different circumstances each time (i.e. busy signal, out of stock, misunderstanding of message, etc.)

This process will continue until each attempt is successful.

Apply: The student will call a real catalog department using the real TTY/telephone relay service in his or her community.
Follow Up

The teacher and student will visit the office of the TTY/telephone relay service in his or her community to learn more about how it works.

The student will experiment calling other businesses using the relay service.

Materials

- telephones
- TTY's
- catalog
Social Communication Lesson Plan

Behavioral Objective

The student will be able to effectively communicate in a restaurant.

Content

-the process of choosing a communication mode in a restaurant
-social etiquette in restaurants
-typical restaurant interactions

Procedures

Teach: The teacher will discuss the differences between formal and fast food restaurants.

The teacher will explain social etiquette in each.

The teacher will introduce various interactions to be expected in each (i.e. "May I help you," "Can I get you something to drink," "Would you like ketchup or salt," "How would you like that prepared," etc.)

The teacher will discuss various environmental aspects that may affect communication (i.e. lighting, noise levels, time elements, etc.)

Practice: The teacher will assume the role of a restaurant employee at a fast food establishment.

The student will assume the role of a customer.

The teacher will proceed with typical questions, comments, and interactions that occur in this sort of environment.

The student will experiment with various types of communication (i.e. speech, speechreading, writing notes, etc.) to reciprocate the interaction and communicate his or her intended message.

This process will continue until the student is able to choose a communication mode that is appropriate for this environment and is comfortable for him or her and is able to communicate successfully with the mock restaurant employee.

The teacher and student will discuss the outcome.
The teacher will assume the role of a restaurant employee at a formal restaurant establishment.

The student will assume the role of a customer.

The teacher and student will repeat the above process, yet adapting to the different circumstances.

This process will continue until the student is able to communicate successfully in his or her chosen communication mode.

The teacher and student will discuss the outcome.

Other teachers and students may become involved to simulate a more accurate environment.

**Apply:** The student will communicate effectively in a fast food restaurant.

The student will communicate effectively in a formal restaurant.

**Follow Up**

The teacher and student can practice in different mock restaurants and apply what they learn in different real restaurants.

**Materials**

- pad of paper and pencil
- menus from local restaurants
- imagination
- field trip permission slip
Behavioral Objective

The student will be able to correctly write directions in proper sequence using proper English and correctly draw a map to reinforce the directions.

Content

- the process of sequencing directions
- the importance of correct directions
- the drawing of a map as reinforcement

Procedures

Teach: The teacher will discuss the importance and value of correct directions and being able to write them in proper English.

The teacher will explain and demonstrate the process of writing in proper sequence.

The teacher will explain and demonstrate how to draw a map that follows the written directions.

The teacher will review frequently used vocabulary for directions (i.e. right, left, north, south, east, west, intersection, etc.) if the student so needs.

Practice: The teacher will provide a list of various locations within the school.

The student will explain to the teacher how to get to these locations.

The student will then write the directions for each location.

The student will draw small maps that coincide with his or her directions.

The student will revise the directions if they are written with improper English or syntax.

Apply: The teacher and student will follow the student's written directions to each location in the school.

If the directions are incorrect, the student will repeat the practice procedures.
If the directions are correct, the student will continue to the follow up activity.

Follow Up

The student will write the directions to a location in the local community.

The teacher and student will follow those directions to the desired location.

Materials

- list of various locations in the school
- paper and pencil
- field trip permission slip