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ABSTRACT

The paper addresses problems teachers of the severely hearing impaired have in being bimodal (speech plus signs) English role models as well as in using American Sign Language. The project described in this paper centers around inservice training and in-class demonstrations of the use of a modified form of Signed English to provide a visual presentation of English as the primary language of the classroom. The typical signing behavior of teachers in total communication programs is illustrated through examples from a videotape. The major portion of the document consists of appendixes which serve as a manual for implementing a similar approach. Appendix A lists the 12 general goals of the Total Communication Project. Appendix B presents eight inservice lesson plans concerned with: (1) sign markers, affixes, and contractions; (2) facial expressions and body language; (3) body and gaze shifting; (4) fingerspelling; (5) classifiers; (6) locatives; (7) indexic referencing and localization; and (8) directionality. Appendix C provides a glossary of affixes and sign markers while Appendix D does the same with contractions. The final appendix lists 19 resources with descriptive abstracts. (DB)

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Occasional Paper No. 127

CONSISTENT LINGUISTIC INPUT IN
THE SIGNING BEHAVIOR OF TEACHERS:
MODIFIED SIGNED ENGLISH

David A. Stewart, C. Tane Akamatsu,
Christopher Hunter, Francine Lauer,
Kelli Krugh, and Wo-Tak Ng

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The Institute for Research on Teaching was founded in 1976 at Michigan State University and has been the recipient of major federal grants. Funding for IRT projects is currently received from the U.S. Department of Education, Michigan State University, and other agencies and foundations. IRT scholars have conducted major research projects aimed at improving classroom teaching, including studies of classroom management strategies, student socialization, the diagnosis and remediation of reading difficulties, and school policies. IRT researchers have also been examining the teaching of specific school subjects such as reading, writing, general mathematics, and science and are seeking to understand how factors inside as well as outside the classroom affect teachers. In addition to curriculum and instructional specialists in school subjects, researchers from such diverse disciplines as educational psychology, anthropology, sociology, history, economics, and philosophy cooperate in conducting IRT research. By focusing on how teachers respond to enduring problems of practice and by collaborating with practitioners, IRT researchers strive to produce new understandings to improve teaching and teacher education.

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Abstract

This paper addresses the problem that teachers have in being bimodal (speech plus signs) English role models as well as in using American Sign Language. The typical signing behavior of teachers in total communication programs is illustrated through a number of utterances drawn from a videotape of one of the teachers participating in a total communication project. Next, a project is described that centers around inservice training and in-class demonstrations of the use of a modified form of Signed English to provide a visual presentation of English as the primary language of the classroom. The project serves as a demonstration to the field of a strategy for implementing consistent linguistic input in classrooms in order to impact on the language acquisition of deaf children. Finally, several of the components of the inservice on modified Signed English are presented in the appendices and include sample lesson plans, and a list of contractions, affixes, and sign markers adopted for use by the Lansing School District.

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CONSISTENT LINGUISTIC INPUT IN THE SIGNING BEHAVIOR
OF TEACHERS: MODIFIED SIGNED ENGLISH

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Christopher Hunter, Francine Lauer,
Kelli Krugh, and Wo-Tak Ng¹

Since total communication became popular in the education of the deaf during the 1970s, teachers have been wrestling with the two-pronged problem of efficient visual communication through the signed modality and modeling grammatical English through a simultaneous bimodal presentation of sign and speech. Researchers, on the other hand, have not taken up the challenge that this problem poses and much of their work has focused only on describing the signing behavior of teachers and assessing the amount of information perceived by students through various unimodal and multimodal presentations. Still others have debated the pedagogical value of using a visual language such as American Sign Language (ASL) versus a visual code such as manually coded English (MCE). Meanwhile, in the classroom teachers continue to ply their trade by combining elements of both ASL and English into a pidgin that is highly variable within the individual teacher as well as across teachers.

While it is imperative that the information students perceive through signs be structured to optimize linguistic input, the nature of teachers' signs must not only be examined, but researchers and teacher educators have the responsibility of assisting teachers in their efforts to become effective linguistic role models. It cannot be ignored that teachers are the primary

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English role models for most deaf students who rely on signing as their preferred mode of communication. Over 90% of deaf children have hearing parents, many of whom do not learn to sign or attain fluency in signing. Therefore, these children are exposed to few, if any, signing English role models outside of the classroom. Furthermore, the auditory mode provides little, if any, comprehensible linguistic information for deaf children and research indicates that a deaf child relying only on lipreading receives little structural information (O'Neill & Oyer, 1961). Additionally, teachers in total communication programs are inconsistent in their modeling of English through the use of signs (Bernstein, Maxwell, & Matthews, 1985; Kluwin, 1981; Marmor & Pettito; 1979; Reich & Bick, 1977; Stewart, Akamatsu, & Bonkowski, 1988), a problem that has serious implications for the language development of deaf children.

Likewise, few teachers serve as ASL role models to students. The scarcity of ASL role models is due in part to the few hearing professionals who work with deaf students (i.e., less than 7% of all teachers and administrators are deaf, Johnson, 1986), a lack of ASL skills among all teachers (Woodward & Allen, 1987), too few training programs that instruct their preservice teachers in the use of ASL (Akamatsu & Stewart, 1987a), a lack of acceptance of the instructional value of using ASL in the classroom, and an absence of communication policies that specifically endorse teachers' use of ASL. Ironically, in some states where deaf students are required to receive the benefits of ASL instruction, their hearing peers are able to take ASL for foreign language credits. Indeed, increased public awareness of ASL has not been translated into practice and the push for ASL in the classroom remains largely rhetorical.

What teachers are using in the classroom is a pidgin that draws on elements of both ASL and English (Kluwin, 1981; Marmor & Pettito, 1979; Stewart, Akamatsu, & Bonkowski, 1988; Woodward, Allen, & Schildroth, 1985). Thus, deaf students who use signs receive little consistent exposure to a visual-spatial representation of the dominant language of society, English, or to the language of the deaf community, ASL. Further, there is considerable variability within this pidgin (Woodward, 1973), and students may encounter a different variety from each of their teachers. The resulting inconsistency in the signing to which they are exposed poses unique problems in the students' acquisition of either English or ASL.

Therefore, the use of pidgin signing as the predominant form of signing in the classroom must be questioned. There is extensive research documenting the influential role of environmental language conditions on the language acquisition of hearing children (e.g., deVilliers & deVilliers, 1978), second language acquisition (e.g., Gass & Madden, 1985), deaf children acquiring ASL (e.g., Collins-Ahlgren, 1974, 1975; Hoffmeister & Wilbur, 1980; Siple & Akamatsu, 1986), and deaf children acquiring English (e.g., Babb, 1979; Brasel & Quigley, 1977; Crandall, 1978; Raffin, Davis, & Gilman, 1978). These studies all indicate that the nature of linguistic input impacts on the language acquisition of all children.

Thus, it seems logical that steps should be taken to ensure that the language environment in programs for deaf students is conducive to the acquisition of both English and ASL. Although it may well be that the use of a pidgin is an intermediary step in deaf students' acquisition of English (Stewart, 1987), justification for its continual application in the classroom by teachers is difficult given the importance of linguistic input and the lack of understanding of the relationship of pidgin signing to language development

in deaf individuals. Further, pidgin signing should not be preferred simply because it is the common form of signing used by teachers and parents. Professionals in the education of the deaf have been woefully negligent in assuring that teachers are well trained in the use of an MCE system or ASL prior to entering the work place (Maxwell, 1985) and in making teachers accountable for excellence in their use of a particular type of sign language/system. Apparently when extensive sign instruction is lacking, pidgin signing may be the default sign system that comes into use.

The purposes of this paper are to illustrate discrepancies between linguistic information presented in the sign and speech modes of a typical total communication teacher and to describe a total communication project in which teachers are trained (a) to use a modified form of Signed English consistently (cf. Bornstein, Saulnier, & Hamilton, 1983) as a visual representation of grammatically correct English, (b) to synchronize their signs with spoken English, and (c) to incorporate ASL signing characteristics when using a modified form of Signed English. Also included in the project, but not described in the present paper, is a training program to help teachers use ASL effectively as an intervention tool for enhancing communication interactions between students and teachers. The long-term goal of the project is to serve as a demonstration to teachers in other total communication programs of the benefits of consistent linguistic input in the language acquisition of deaf children.

Project Description

Participants and Setting

Participating teachers were drawn from three total communication programs in the Lansing School District in the state of Michigan. Because these

programs cover the range of deaf students enrolled in the school district, all of its teachers (N = 5) are involved in the project.

A major intent of this project is to train teachers in a total communication program to be consistent in their use of a particular MCE system and ASL. Specifically, because English is the primary language of instruction in the school district in which this project is located, an MCE system is used for most teacher-student interactions with ASL used as an intervention tool. No effort was made to impose a particular MCE system on the school district. Rather, emphasis was placed on how an MCE system could be used and the ways in which ASL characteristics could be incorporated into it.

The communication policy of the Lansing School District endorsed the use of a modified form of Signed English (Stewart, 1988) which will hereafter be referred to as modified Signed English. Modifications involved the use of the sign for PAST as the past-tense marker for regular and irregular verbs, the incorporation of several additional markers and affixes taken from the Signing Exact English system (Gustason, Pfetzing, & Zawolkow, 1980), and the inclusion of ASL characteristics such as classifiers and body shifting. (See Appendix A for the general goals of the project, Appendix B for examples of inservice lessons, Appendix C for a listing of the affixes and sign markers, and Appendix D for contractions that were incorporated into modified Signed English). Once an agreement was reached on the necessary modifications of Signed English, it was then expected that all teachers would use this system as the basis for their English signing behaviors.

Overview

The four-year project began in the Fall of 1987. During the first two years the focus was on gathering baseline data on teachers' signing skills and students' academic and language performances and the training of teachers to

use modified Signed English and ASL consistently when interacting with their students. During the third year skills learned in the first two years will be reviewed and all participating teachers will have their classes become part of a statewide demonstration project, open for inspection by educators, administrators, parents, preservice teachers, and others. In the fourth year, the long-term impact of training teachers to become English role models while using ASL as an intervention tool will be examined, and the classrooms will continue to be used as a demonstration project.

The project encompasses a broad range of objectives that include collection of descriptive data, creation of observational materials, development of inservice materials, assessment of the impact of consistent linguistic input on student's academic and language performance, development of strategies for using ASL as an intervention tool, and long-term monitoring of teachers' signing behaviors. The focus of this paper is on (a) selected examples of typical communication behaviors of teachers who use pidgin signing, taken from a videotape of a teacher interacting with her students prior to the start of the inservice program, and (b) the inservice program and techniques used to demonstrate the use of modified Signed English in the classroom.

Teacher Communication Behavior: Selected Characteristics

This section illustrates some common communication characteristics of teachers in total communication programs. This is accomplished by citing examples of the communication behavior of one of the project's participating teachers. No attempt is made to give a thorough analysis of this particular teacher's communication, as such an analysis will be addressed in a later paper. Rather, the illustration presented here serves to (a) show that the signing used by teachers prior to the start of this project is best described

as being a type of pidgin signing. The correspondence between signs and speech is most accurately described as being essentially equivalent in meaning but not grammatical form and (b) illustrate the type of linguistic information deaf students receive from their teachers in total communication programs.

A. Procedures. At the beginning of the project all of the participating teachers were videotaped while they conducted two one-hour class sessions. The camera remained focused on the teacher at all times and was allowed to run throughout each of the sessions. This procedure captured a wide range of teacher-student interactions as well as interactions involving the teacher and other adults. Teachers were instructed to sign as they normally do during classroom interactions. All utterances were included in the linguistic analyses with the only exceptions being those that were unintelligible.

Transcription procedures were similar to those used by Maxwell and Bernstein (1985) and Stewart et al. (1988) in that both the sign and speech channels were transcribed to allow comparisons of lexical and morphological forms, grammatical structures and semantic content. Also included in the transcriptions was a coding system which identified errors in the production of a sign. Following is an example of a transcribed sign and speech utterance:

Utterance #810

sign:	YOU HAVE (xh)	WORD NORTH IN (xi)	YOUR STREET AND	SAME
speech:	You have	the word north in	your street	the same
sign:	SCHOOL			
speech:	as your school			

In the foregoing transcription, (xh) indicates that the teacher used the wrong handshape and (xi) indicates that a particular sign was incompletely produced. A total of four transcribers was used to complete all transcriptions. Interrater reliability was not taken into account because where there

were disagreements the transcribers had to resolve their differences by reviewing the tape together. In other words, the completed transcriptions reflected the information conveyed by the teachers as closely as possible.

In this paper only one transcription will be used to provide examples of how teachers typically sign in total communication programs. The teacher selected has taught in a total communication class for 11 years, and, by her own admission, her signing is a pidgin. For the videotaping, she interacts with four students aged seven to nine years. Like most teachers in the field, she has received very little instruction in signing and was not formally taught an MCE system or ASL.

B. Samples of a teacher's communication behavior. The basic premise of nearly all total communication programs is that the information presented in the sign mode should match that presented in the speech mode. Typically, teachers use one of several MCE systems to provide a manual-visual representation of English. In this respect, our subject did provide some instances where the information presented in the sign mode did match that presented in the speech mode. Two of these are as follows:

Utterance #6

sign: YOU KNOW BETTER YOU HAVE BETTER MANNER+S
speech: You know better you have better manners

Utterance #100

sign: READ THAT NUMBER FOR ME PLEASE
speech: Read that number for me please

However, a perfect sign-to-speech match was not common in our subject's communication. Indeed, it is our belief that the signing behavior of our subject is representative of the signing behavior of teachers in most total communication programs. Several studies have shown that a sign-to-speech correspondence is lacking in most teachers' communication behavior. Of

particular interest is a study by Woodward and Allen (1988) which reported that 12.3% of teachers in total communication programs accurately use a manually coded English system to provide a visual representation of spoken English. Although it can be argued that given Woodward and Allen's (1988) data and criteria for determining accurate use of a manually coded English system this proportion might be low, the fact remains that most teachers do not provide an accurate visual-manual representation of English in their signing. In other words, teachers tend to use a pidgin when signing and it would be reasonable to expect that the communication behavior of our teachers would also be a form of pidgin signing.²

Analyses of the teacher's transcriptions supported our expectations. It is difficult to describe the exact nature of the teacher's signing because pidgin signing can include a range of characteristics drawn from both ASL and English. Hence, a number of utterances have been selected to illustrate some communication characteristics. These utterances were not drawn at random because of the occurrences of one word utterances (e.g., OK, nope, yeah) and phrases where the meaning of the sign part was not equivalent to that of the spoken part. Examples drawn from a list of 1051 utterances and some comments about each are listed below.

²The proportion of teachers who accurately used an MCE system to represent English might have been higher if Woodward and Allen (1988) had accepted that rules for governing the use of an MCE system have undergone much change in the field since their introduction in the early 1970s. For example, if teachers chose to fingerspell certain affixes instead of using designated signs, these authors did not accept the teachers' signing behavior as reflecting accurate use of an MCE system. This is an unfortunate analysis of signing behavior because it fails to account for the evolution of sign systems. If visual representation of speech is a goal, then conceivably a teacher should be able to sign or fingerspell a word and still be using a particular MCE system. After all, if a person signing in ASL fingerspells the word "car" instead of using the ASL sign for CAR, few people would argue that this person had violated an ASL signing principle.

Utterance #48

sign: AT TOP GIRL SHOW HOW MAKE GROUP O-F
speech: At the top the girl is showing how to make a group of
sign: ONE-HUNDRED
speech: one hundred

One major difference between the speech and sign components of bimodal communication is the omission of function words in the manual mode. In the above utterance, the teacher omitted signing the infinitive "to" and the articles "a" and "the." Moreover, a single sign SHOW represents the whole verb phrase "is showing." Possibly, signers who are highly proficient in the use of English would be able either to speechread the information contained in this phrase or to fill in the missing information by drawing from their own knowledge of the English language. However, the linguistic information that individuals fluent in English are able to receive from pidgin signing might not be readily applicable to deaf students in the process of acquiring English. For example, people assume that leaving out information pertaining to English grammatical structures in the sign mode will not be detrimental to a deaf student's acquisition of English. Since there is no basis for this assumption, the information should be retained until it is certain that language acquisition will not be hindered by the omission.

Utterance #33

sign: REMEMBER THAT START YESTERDAY?
speech: Do you remember that we started yesterday?

In this utterance, two pronouns are omitted and the auxiliary verb "do." These omissions are typical in pidgin signing when a person is asking a question with "do." In the above example, the pronoun "you" might be inferred from the eye gaze of the signer and the pronoun "we" from the context of the discourse. Likewise, the teacher's facial expression could indicate that a

question was asked. This teacher has incorporated into her pidgin signing the ASL grammatical features associated with asking a question and with pronominalization. She also assumes that in the absence of a complete English representation in signs that her students will still understand the meaning she is trying to convey. But the fact remains that students do not see their teachers using DO or more generally the do-support. Instead, if called upon for such a task students must rely on their own knowledge of language structures to make the translation to a grammatically correct English sentence. Also missing from the sentence is the sign marker for past tense in the word "started." Again, the past tense might be inferred from the context of the discourse and/or from the presence of the word "yesterday." However, the low English proficiency level of many deaf students suggests that they might not have the ability to infer correct English structures from a pidgin.

Utterance #181

sign: I WANT YOU-ALL READ NUMBER FOR ME
speech: I want you to read the numbers for me.

The infinitive "to," the determiner "the," and the sign marker "s" for plural are omitted in the sign mode. Yet, this sentence as well as the previous ones are essentially equivalent in meaning in the sign and speech modes. Indeed, the equivalency in meaning becomes a rationale for teachers not to attend to what are usually described as the nonessential features of English (e.g., articles, infinitives, past tense markers) when signing. However, if students are not exposed to these features in the sign mode, then the question arises as to whether they are picking them up in the speech mode either through audition or speechreading or whether they would be able to insert them into the sentence based on their knowledge of English. The severity of the hearing loss of students in total communication classrooms, the low English proficiency level of the students, and the difficulty of

speechreading suggest that the information contained by the nonessential English features might not be picked up by the students if it is not presented in the sign mode. This implies that these features might have to be taught rather than acquired through conversations.

Utterance #796

sign: [gesture] EXCUSE(XH) YOU BOB TALK NOW
 speech: excuse me it is Bob I'm talking to now

In the foregoing utterance there is a lack of correspondence between signs and spoken words or morphemes. The manual part of this utterance is telegraphic and thus potentially ambiguous. Also, the abstract grammatical "it" and the particle "to" in the phrasal verb "talk to" are missing manually. A fully complex sentence has changed into a structure that is most commonly associated with "foreigner talk." Moreover, even if context is accounted for and there is knowledge of the discourse prior to this utterance, it may be unclear as to whether Bob is doing the talking or the teacher is talking to Bob. Finally, with respect to EXCUSE YOU, it is common in ASL to just sign EXCUSE for the English equivalent of excuse me. Thus, in this utterance the sign YOU may have been used for added emphasis in the sense that the teacher is asking the student to pay attention.

Utterance #951

sign: I(XH) WILL GIVE FEW MINUTE GET DRINK
 speech: I will give you a few minutes you can get a drink of
 sign: WATER IF WANT
 speech: water if you want

Again, there is a lack of sign-to-speech correspondence in this utterance. Because of the omission of "a" and "of," students might take the sign DRINK as a verb. That is, GET DRINK could easily be taken as a verb construction, especially by students who are not proficient in English.

the insertion of an article as in GET A DRINK there is a better likelihood that DRINK will be perceived as a noun.

As mentioned earlier it is difficult if not impossible to classify pidgin signing in a manner that clearly identifies a person's signing behavior. Given our current understanding of pidgin signing, the best that can be done is to make broad statements that capture certain linguistic characteristics (e.g., in pidgin signing it is common to omit function words and affixes). Therefore, the utterances presented above do not encompass all of the communication characteristics displayed by this teacher. However, they are a sampling of some common characteristics. As such they should suffice to illustrate the nature of pidgin signing that prevails over all other forms of signing when teachers lack formal training in an MCE system or ASL and in the absence of a firm communication and language policy that stipulates the nature of teachers' communication behavior in the classroom.

Inservice: Modified Signed English

The inservice program to train teachers' signing skills was divided into two phases. The first phase centered on the use of a modified form of Signed English and began halfway through the first year. During the second phase teachers will be trained to use ASL as an intervention tool. Inservices were three hours long and were held on a weekly basis over a 20-week period. The main lessons used to guide the inservices are in Appendix B. Following are objectives of the inservice on modified Signed English and specific comments pertaining to each:

1. Teachers will use a modified form of Signed English consistently as a means of visually representing English. Teachers were expected to use modified Signed English all of the time during the inservice and are expected to do the same while teaching. Obviously, the transition from a signing style

that is predominantly a pidgin to one that requires the addition of sign markers and signs for affixes, articles, and other English grammatical features to an individual's signing repertoire will take time. Moreover, not all teachers possessed the same level of signing skills nor do they progress at the same rate. Therefore, teachers were allowed to set their own goals for progressing towards complete English signing behavior. For example in one particular week, one teacher's goal was to concentrate on the consistent use of past tense markers, whereas another teacher's goal was to use both past tense markers and the marker for regular plurals.

2. Teachers will use ASL characteristics when signing in modified Signed English. To increase the effectiveness of modified Signed English as a communication tool, it is necessary to go beyond the mere transliteration of spoken English to signs. Teachers are shown how to use features characteristic of ASL while signing modified Signed English. These features include verb directionality, facial expressions for questions and if-then clauses, body shifting, eye gazing, sign-mime, and the use of indexic referencing of nouns to indicate spatial relationships. In addition, teachers are shown how to use locatives and classifiers to add clarity to their messages. Because the use of these ASL features in a sign often translates into more than one English word, their use in modified Signed English is seen as an adjunct rather than a component part of an English phrase. Typically, they are included at the end of an English phrase which, in a sense, gives an ASL interpretation of what was said in English.

For example, in the sentence "There are trees on the side of the hill" both a classifier (for TREE) and a locative feature (for "THE-SIDE-OF [the hill]) can be incorporated at the end of the sentence. This is done by signing

THERE ARE MANY TREE+S ON THE SIDE OF THE HILL--followed by the appropriate use of an ASL classifier to indicate that there are many trees located on the side of a hill.

Admittedly, this represents a deviation from straight Signed English, hence, the name modified Signed English. However, such deviations are justified if they clarify the meaning of a previous passage and if they are used in such a manner that the teacher and the students are aware of the switch in language code.

3. Teachers will synchronize their speech with their signing. Because signing and speech involve mastery of two different sets of articulatory systems, it is not expected that all teachers will be able to match their signing rate with that of their speech. Further, given that deaf children's perceptual strengths lie in the visual channel, it was determined that each teacher's signing rate would be used to regulate the speed of his or her bimodal transmission of information. This guideline represents a shift from the more common technique of allowing the speech rate to dictate the speed of the signing, which, for many teachers, is accommodated by using a form of pidgin signing, wherein signs are used for words or morphemes that are stressed and omitted for nonstressed words or morphemes. Given that signing is the modality in which signing deaf children receive most of their information, then efforts to facilitate communication should be directed primarily by principles stemming from the articulation of signs and not speech.

4. Teachers will be exposed to the use of modified Signed English by deaf and hearing role models. The inservices were conducted by three deaf instructors and one hearing instructor. Each instructor is bilingually fluent in the use of English and ASL. In addition, in order to observe in-class demonstrations of the consistent use of modified Signed English, two of the

instructors team-teach with the teachers one period per week in the teachers' classrooms. Some of the benefits of this strategy are that the instructors were more actively involved in the teachers' learning; instructors were better able to assess the adequacies and inadequacies of using modified Signed English with different aged students and under various conditions (e.g., formal instructions, one-to-one interactions); materials taught during the inservices were reinforced in the classroom; and students were exposed to other English role models.

5. Teachers will use modified Signed English in noninstructional settings. Field experiences occur every fifth inservice session and involve interactions between the teachers and all instructors in a setting outside of the classroom. Restaurants, shopping malls, and recreational activities such as bowling are used to create a relaxed atmosphere in which teachers can experiment with using modified Signed English to discuss a diverse range of topics at an adult level.

In addition to the above objectives it should be noted that videotapes are used extensively to provide feedback to teachers of their signing behaviors during the inservice sessions. As stated earlier, two one-hour long videotapes of the teachers instructing in their classrooms were made to collect base line data on their communication behaviors. These were then transcribed to provide teachers with sign and word texts of all of their communication. The videotapes and transcriptions were analyzed to determine appropriateness of signs and speech used, as well as to critique the delivery of signs. A copy of the transcriptions and a copy of the videotape were then given to the teachers to assist them in evaluating and refining their signing styles. From the instructors' viewpoint, examining the videotapes and

transcriptions was useful in indicating some of the common errors teachers make and the discourse situations influencing signing behaviors.

Discussion

If teachers of the deaf are to be practical about their intent to assist deaf students in the development of English, then their own linguistic behavior must be carefully monitored. Where signs are used, teachers need to know what type of signs they are using and how to use them. When manually coded English systems were introduced to deaf education on a large scale in the 1970s they did not specifically address signing features that were characteristic of ASL. This may have occurred because MCE systems were designed to convey the grammatical structures of English with little emphasis placed on the value of MCE systems as a communication tool. MCE systems have now been around long enough for educators to realize that their production in the classroom entails more than simply having a copy of a particular MCE dictionary lying on the shelf.

Furthermore, a comprehensive education program for deaf children requires that deaf cultural and linguistic heritage be incorporated into the curriculum. Over the past two decades there has been plenty of rhetoric focusing on the need for using ASL in the instruction of deaf students. Our field is not short of models and strategies for implementing English/ASL bilingual education programs. What deaf children desperately need is a conscientious effort by their teachers to go beyond paying lip service to a notion whose time has come and who start using ASL in a deliberate manner conducive to facilitating more effective communication between teachers and students (e.g., Stewart & Hollifield, 1988). An inservice program on ASL has been designed for the teachers in this project and a future publication will detail the nature of these inservices.

Finally, this project has the potential to change the education of deaf children through several channels. First, it will improve the signing behavior of participating teachers through the modified Signed English and ASL inservice programs. These programs are designed to demonstrate that (a) teachers have the capacity to use an MCE system as a visual representation of grammatically correct English in a manner that is perceptually accessible and visually appealing; (b) hearing teachers can learn to sign ASL; (c) a linguistic environment can be established that combines the use of both English and ASL into a distinctive instructional approach derived from research evidence on MCE and ASL related to language acquisition; (d) the current uncertainty surrounding teachers' use of signs can be removed; and (e) inservices to improve teachers' signing skills can be successful. For the participating teachers the project will be a source of motivation for them to become more consistent in their use of English and ASL and less dependent on their use of pidgin signing.

Second, the project will provide indirect benefit to students whose teachers are direct participants. By focusing on training teachers in techniques of signing grammatically correct English and ASL and maintaining a separation of the two linguistic inputs, the students are exposed to consistent language role models critical to their acquisition of language.

Third, the project provides long-term benefits for teachers and deaf students above and beyond those participating in the demonstration project. The signing skills learned by the teachers can be used for as long as the teacher continues to teach in total communication class a skill which will benefit students in future years following termination of the project. Also, because four of the project personnel are also involved in a exemplary teacher training program that focuses on the bilingual/bicultural education

of deaf children (Akamatsu & Stewart, 1987b), the sites of the project will be a source for field placement of preservice teachers. The project will be open for inspection by parents, teachers, and other visitors.

Finally, it should be noted that the communication model suggested in this project can be adapted to accommodate the communication needs of a variety of educational objectives. For some deaf students ASL might be better used as the primary language of instruction and English as the intervention tool. Alternatively, ASL might be better used as the primary language for certain subject matters and English for other subjects. Regardless of the language used, its representation through signs should be consistent.

Further Considerations

Not surprisingly, the lexicon of ASL does not always lend itself to a corresponding match in English and vice versa. In particular, this is true for vocabulary in the areas of technology, computing science, the sciences, geography, history, economics, and social studies. We have supplemented our inservices with several resource books on technical signs and have also drawn upon the Technical Signs Project videotapes produced at the National Technical Institute for the Deaf (NTID). When signs cannot be found for an English word, we suggest fingerspelling rather than inventing signs. This allows teachers and students to use a vocabulary common to a wide range of people instead of only to those in a single school district. Still, there is a critical need in the field for new signs if total communication programs wish to provide deaf students with a comprehensive education program unhindered by the extent of a teacher's knowledge of signs.

Thus far, the project has focused on the teacher's signing behavior and general communication skills. In years three and four, the relationship between sign and print will be examined that is, although the teachers may

have an understanding of how their signing maps onto English, this knowledge still needs to be made explicit in the graphic mode.

A Final Word

Teachers have long borne the responsibility for the low achievement standards of deaf students. Yet, many are ill equipped to handle the bilingual, bimodal situation they face in the classroom. Teacher education programs, while spending much time on language and speech development, have largely neglected to train their preservice teachers in the communication skills necessary to be effective teachers. Teachers need to have a metacognitive awareness of their own linguistic abilities; they must know what their options are in terms of expressing any given idea and why they choose one particular formulation over another. They must be strategic in their use of MCE, incorporating features commonly found in signed languages where appropriate, and code switching into ASL when necessary. If we are to become accountable for providing a quality education to deaf children and youngsters, then action must be taken to assist teachers in their communication endeavors in the classroom.

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Appendix A

GENERAL GOALS OF THE TOTAL COMMUNICATION PROJECT

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1. To provide hearing impaired students with linguistic input in English and American Sign Language that contains correct grammatical features of each language.
2. To enable teachers to provide linguistic input to hearing impaired students consistently in a multimodal design that will include speech, speechreading, signs, fingerspelling, and audition, as appropriate.
3. To emphasize the importance of consistency in the presentation of linguistic information during a simultaneous sign and speech delivery.
4. To enhance the grammar of signed presentations in the classrooms so that hearing impaired students should be better able to generate language rules which lead to a full command of English.
5. To incorporate American Sign Language signing characteristics into a modified form of Signed English so as to enhance the visual-spatial representation of English language symbols.
6. To use American Sign Language as a language and communication tool inside and outside of the classroom.
7. To foster optimal environments which encourage hearing impaired students to use strategically a modified form of Signed English, American Sign Language, speech, and speech-related skills to maximize their communication abilities.
8. To promote the use of community-based signs, when necessary, that will increase the compatibility of the signs used in the classrooms with those used in the adult deaf community.
9. To encourage the use of fingerspelling.
10. To use initialization of signs only when it contributes to the understanding and English meaning of a sign.
11. To recognize initialized signs for their educational value while accepting their functional use outside of schools only after being so determined by the deaf community.
12. To use the classrooms involved in the project as part of a statewide model total communication demonstration site.

Appendix B
INSERVICE LESSONS

NOTE: All illustrations in the Appendix B section on Classifiers (pp. 47-59), are used with permission from T. J. Publishers, Inc., 817 Silver Spring Avenue 206, Silver Spring, MD 20910, and are taken from T. Humphries, C. Padden, & T. J. O'Rourke (illustrated by F.A. Paul). A Basic Course in American Sign Language.

Appendix B

INSERVICE LESSONS

Lesson 1: Sign Markers, Affixes, and Contractions

A. Goals and Objectives

Goal:

Participants should be able to describe how sign markers change the meaning of a word.

Lesson Objectives:

Upon completion of the lesson, the participant will

- 1.1 understand how sign markers change the meaning and function of a word.
- 1.2 be able to demonstrate which sign markers are signed after the basic sign word, and which are signed before.
- 1.3 be able to recognize and demonstrate 12 Signed English sign markers that have been borrowed from Signed English.
- 1.4 be able to recognize and demonstrate the affixes that have been borrowed from Signing Exact English.
- 1.5 be able to recognize and demonstrate the contractions accepted in modified Signed English.
- 1.6 consistently use the accepted sign markers, affixes, and contractions when signing in modified Signed English.

B. Introduction

Modified Signed English is an instructional tool that provides a manual representation of English. As the name suggests, it is a modified version of the Signed English system developed by Bornstein, Saulnier, & Hamilton (1983). In our system teachers are encouraged to use signs that are also used in American Sign Language (ASL) and to fingerspell words for which there may not be a sign equivalent. However, English contains many morphemes that change the meaning of verbs, nouns, adjectives, and adverbs. To some extent, these changes are noted in modified Signed English by incorporating the use of ASL sign markers for the following four features

Comparative: -ER ... STRONGER

Superlative: -EST ... SMALLEST, BRIGHTEST

Opposite of: IN, UN, DIS, IM ... INABILITY, UNHAPPY, DISALLOW, IMPATIENT

Agent: To indicate person ... WORKER, TEACHER, LIBRARIAN

To represent other English morphemes, modified Signed English uses some affixes that are used in Signed English (e.g., -LY, -Y) and many others that are commonly used in Signing Exact English (e.g., -MENT, -SHIP). Appendix C gives a complete listing of sign markers and affixes used in our modified Signed English system.

Signs are also used to indicate contractions. For example, I'LL is produced by doing the sign for "I" followed by the sign for "'LL." A complete listing of the contractions is shown in Appendix D.

Thus, one of the basic components of modified Signed English is the use of sign markers, affixes, and contractions. The general rule of modified Signed English is to use ASL signs, fingerspelled words, and appropriate signs indicating morphemes, in English word order. In this lesson some of the signs used to indicate English morphemes are presented.

C. Procedure

The most difficult part of learning to use sign markers, affixes, and contractions lies in their manual articulation. The major reason for this is that for people who typically rely on speech as their major means of communication, the speech rate tends to guide the rate of signing. Thus, while trying to provide a manual representation of spoken English, individuals may find it cumbersome to maintain their normal speech rate while including all markers, affixes, contractions, articles, and many other words the omission of which is not believed to hinder comprehension. For example, a common way of signing the sentence "After he got everything working, he ate all of the candies" might be

AFTER HE GET EVERYTHING WORK HE EAT ALL CANDY.

This type of signing is commonly referred to as pidgin signing and is not a part of Lansing School District's communication and language policy. Instead, the proper way of signing the foregoing sentence in modified Signed English is

AFTER HE GET+PAST EVERYTHING WORK+ING HE EAT+PAST ALL OF THE CANDY+S.

It is recognized that at the early stages of learning to sign modified Signed English the ability to maintain a normal speech rate while signing may not be possible. Therefore, it is recommended that when necessary, teachers talk at a slower rate in order to focus on their simultaneous communication expression. With practice they will be able to sign and speak at a faster rate. Further, justification for this strategy comes from the students, many of whom rely more heavily on signing than on speech for receptive communication.

Although there is no single procedure that can best lead teachers to learn modified Signed English, the following two suggestions are helpful:

1. While practicing, concentrate on expressive sign skills during the early stages of learning to sign modified Signed English. This can best be done by mouthing words instead of voicing them or by not using speech at all.

Without voice, an individual's monitoring of his or her speech decreases in importance. This is an interesting point--although it is generally agreed by proponents of total communication that signing is the all important communication modality, teachers continue to allow speech not only to dictate their signing behavior, but also to justify what it is that they do not sign. Thus, to overcome this tendency, consideration should be given to learning modified Signed English without the overriding influence of speech. As a teacher becomes more fluent in signing, the ability to combine the sign and speech modalities should also improve.

2. Target certain affixes, sign markers, and contractions for incorporation into your signing behavior. Some individuals get frustrated while signing in English because they are unable to sign it fluently and with a minimum of effort. What they fail to realize is that signing is a skill that requires much practice. It is advisable when practicing that you select a progressive set of targets such as the following: (a) in a 15-minute stretch of signing you will sign all past tense markers; (b) while signing a story you will sign the affixes "ment," "tion," "ness," and "able" along with the past tense marker; and (c) in a 10-minute stretch of signing you will sign "ing" along with the previous targets. In this way, you should be able to improve your self-monitoring skills and get to the point where you are more spontaneous in your use of modified Signed English.

D. Practice Sentences

The following practice sentences are offered only as a means of getting started and provide an opportunity to practice some sign markers, affixes, and contractions. Underlining indicates words that are modified by adding a sign marker or a sign morpheme corresponding to an affix or a contraction. It should be noted that the past tense of regular and irregular verbs are not distinguished by different sign markers. Thus, LIKED, SWAM, and HIT are signed LIKE+PAST, SWIM+PAST, and HIT+PAST. It is also acceptable to fingerspell affixes as in the word HOME+L-E-S-S. For words that contain more than one affix and/or sign marker it might not be practical to sign all of them. For example, THOUGHTFULLY can be signed without the past tense marker as follows, THINK+FULLY, where the sign for THOUGHT is a variation of THINK and FULLY can be fingerspelled. On the other hand, MEANINGS should be signed MEAN+ING+S because in the absence of either affixes the intended English meaning of the sign alone could not be inferred. That is, MEAN+S will be understood as "means" and MEAN+ING as "meaning."

In addition to the following sentences it is recommended that participants construct their own sentences and share them with others.

1. HIS MOTHER HAS TOLD ME THAT HE NEVER LIKED SLEEPING.
2. JANE'S DEAFNESS WAS CAUSED BY MENINGITIS.
3. THE SUCCESSFUL DEVELOPMENT OF MOST PROGRAMS STARTS WITH THE SELECTION OF CAPABLE PEOPLE.
4. I DISLIKE MOSTLY HIS INCAPABILITY TO HELP OTHERS THOUGHTFULLY.

5. IF YOU SHOULD DISAGREE WITH HIM THEN PLEASE PLAN A DEMONSTRATION OF HOW IT SHOULD BE DONE.
6. IT MAY NOT HAVE BEEN THE BEST WAY TO SHOW LEADERSHIP SKILLS BUT IT'S OBVIOUSLY HER ONLY CHANCE OF GETTING THROUGH THE SCHOOL YEAR.
7. I'D RATHER HAVE A CLASS THAT'S NOT MANAGEABLE BUT IS ENTHUSIASTIC THAN HAVE A WELL MANNERED CLASS THAT ISN'T ENTHUSIASTIC.
8. IF IT'S SUNNY OUTSIDE THEN I'M QUITE WILLING TO START WORKING ON THE HARDEST JOB FIRST.
9. SPEAKING OF THE DEVIL, YOU'RE NOT EXACTLY A MODEL OF GOOD BEHAVIOR WHEN IT COMES TO SHOWING KINDNESS TO YOUR OLDER SISTER.
10. IF THINGS SEEM TO BE GETTING WORSE THEN YOU'LL PROBABLY BE CALLED TO COME QUICKLY.
11. HE IS A TRUSTING PERSON BUT NOT A SHARP THINKER.
12. I CAUGHT 14 MICE YESTERDAY RUNNING AROUND MY ROOM AND DRESSED IN MY CLOTHES.
13. THEY ARE JOINING TABLES IN PREPARATION OF A FANCY CELEBRATION FOR THEIR TEACHER'S RETIREMENT.
14. FOR HOW MANY DAYS WILL YOU BE VACATIONING IN PARIS?
15. REMEMBER, PRACTICE SENTENCES ARE ONLY GIVEN TO YOU IN ORDER TO GET YOU START !. THINK OF THEM AS THE WARM-UP EXERCISES TO ASSIST YOUR LEARNING.

Lesson 2: Facial Expressions and Body Language

A. Goals and Objectives

Goal:

Participants should be able to describe how the use of facial expressions and body language enhance modified Signed English.

Lesson Objectives:

Upon completion of this lesson, the participant will

- 2.1 be able to incorporate the use of facial expressions and body language into modified Signed English.
- 2.2 be able to demonstrate the difference between pantomime and non-verbal communication.
- 2.3 be able to apply pantomime when necessary to enhance expressive signing behavior in modified Signed English.
- 2.4 be able to demonstrate the use of the following five basic facial expressions: happy, sad, surprised, angry, and fearful.
- 2.5 be able to demonstrate appropriate use of the following five facial movements: eyebrows, eyes, nose, cheeks, and lips.
- 2.6 be able to demonstrate the following four basic body positions referred to as

double-zero position	rear inclination
forward inclination	side inclination
- 2.7 be able to demonstrate how different arm and hand positions enhances the meaning of a phrase.

B. Introduction

Sign language depends on the articulatory dynamics of the visual-spatial medium. Signs alone are insufficient in providing all of the information needed to convey thoughts. More important, signs alone may not provide enough information for others to understand the messages we wish to express. Deaf individuals have limited access to the auditory information available in speech. Therefore, the semantics of signed communications are enhanced by visual cues such as raised eyebrows, raised shoulders, and eye gazes rather than sounds related to pitch, tone, and loudness. Thus, the use of facial expressions and body language is a critical skill that all signers must have.

When using modified Signed English and voice simultaneously, the voice is often the dominant mode of expression for a hearing person; that is, hearing persons will tend to overlook the fact that information being conveyed

through voice characteristics are not necessarily being translated in the visual medium. In this lesson, there are a series of exercises involving the use of facial expressions and body language skills that should be a part of every signer's communication behavior.

C. Procedure

1. Facial expressions

Prior to doing this exercise it would be helpful to have an experienced signer demonstrate how some basic types of facial expressions can enhance and/or convey meaning in signing. For example, the sentence "I want \$5.00" can take on the following meanings depending on the type of facial expressions used:

- rhetorical question: I WANT \$5.00? NO, I DO NOT.
- surprised question: I WANT \$5.00? I NEVER SAID THAT!
- request: I WANT \$5.00.
- tongue-in-cheek: I WANT \$5.00. COME ON, LET'S HAVE IT.

It is recommended that outside of the classroom the exercises in this lesson be practiced in front of a mirror. This suggestion could actually be applied when learning any signing technique as it is a good way of breaking inhibitions that one might have about using facial expressions.

The five basic emotions (adjectives) that can be used to cue facial expressions when signing are as follows:

a. HAPPY



b. SAD



c. SURPRISED



d. ANGRY



e. FEARFUL



The main feature of the above illustrations is that they clearly highlight the importance of the eyebrows and the shape of the mouth. When practicing it is helpful to remember the general position of the eyebrows and the shape of the mouth as they correspond to each emotion.

Exercise #1

In this exercise you are expected to show the appropriate emotion while signing each of the words associated with it. At this stage you should concentrate on projecting the emotional intent of your signs as much as possible. It would be better to exaggerate a facial expression than to be void of one all together. For many people, learning to use facial expressions is a hard task made more difficult by social inhibitions of using these expressions in conversation. It may help if the signer keeps in mind that using facial expressions is not similar to "making faces."

- a. HAPPY (BEAUTIFUL, COOL, BRIGHT, LOVELY)
- b. SAD (TIRED, HEAVY, SLEEPY, WEAK, BORED)
- c. SURPRISED (STRONG, TALL, INTERESTING, SMART, CHANGE)
- d. ANGRY (STUPID, MAD, HEAVY, UGLY, BAD, LIE, DIRTY)
- e. FEARFUL (AWFUL, CONFUSED, CRAZY, SCARED, IMPOSSIBLE)

Exercise #2

1. Augmenting verbs

In this exercise you are to create a list of verb signs and then sign them with appropriate facial expressions as demonstrated by your instructor. For example,

IMPROVE--HAPPY	I WAS THRILLED TO SEE THAT YOU IMPROVED SO MUCH.
FAIL--SAD	SHE FAILED TO GET ELECTED.
MARRY--SURPRISED	I FLIPPED WHEN SHE SAID SHE WOULD MARRY HIM.
DISAGREE--ANGRY	YOU DISAGREE WITH HIM TOO MUCH FOR YOUR OWN GOOD.
MISUNDERSTAND--FEARFUL	IF I MISUNDERSTAND HIM AGAIN I WILL STOP COMING.

2. Detailed facial expressions

The precise meaning of a particular facial expression is dependent upon the context in which it is used. For example, the raised eyebrow and round mouth movement shown in the figure below can mean that a person is expressing "fright" or "physical torture" or even a number of other feelings depending on the context of a dialogue. Nevertheless, it is helpful for signers to learn some of the more common associations of facial expressions with certain semantic categories. In this way, signers who have difficulty manipulating

their facial features while carrying on a dialogue, can acquire this skill through practice. In time, the appropriate use of facial expressions will occur more naturally.

Examples of the role of certain facial movements in illustrating a meaning are shown in the following examples:

2.1 Eyebrow Movement:



a. raised: prayer, joy, admiration, fascination, shame, cowardice, astonishment, ignorance, lack of intelligence



b. raised higher: fright, physical torture, extreme joy, dumb-founded



c. one eye closed: there is danger of something; or I suspect something



d. eyes half-closed, turned to one side without moving head: I pretend, I spy on, I betray, I am bored or not stimulated, shame, falseness, hypocrisy

2.2 Nose Movement:



a. nostrils open: that smells bad, it is disgusting

2.3 Cheek Movement:



a. drawn in: skinny, aged



b. puffed out: fat, chubby, rich



c. raised toward cheekbones: I'm not satisfied, I hate you, I am depressed, I am hurt

2.4 Lip Movement:



- a. closed, one corner depressed: I suspect, he lies, I blame, he wants to fool me



- b. lips puckered (whistling, smiling): desire to please, affection



- c. smiling with one side raised: I lied, I fooled him, I made fun of him



- d. drawn in: controlled laugh or anger



- e. half open, corners drawn down: suspicion, disgust, oh, hurt

3. Body language

In addition to facial expressions, body language can play an important role in communicating thoughts. Like facial expressions, body language is something that all individuals, deaf or hearing, tend to do naturally to augment their preferred mode of communication. However, some individuals for whom signing is acquired after they have learned to speak, may unintentionally inhibit their body language as they focus on the production of signs. In other words, they may be so conscious of how they are going to sign something that they stifle any attempt to use the body to enhance the message contained in their signing.

In contrast, there are some individuals who more readily use their bodies to communicate thoughts. Although this is a desirable trait for a signer, this type of person must be able to control the intensity of their body movements (and facial expressions) so as not to overdramatize their actions. Hence, a person desiring to express a mild degree of affection while signing "I REALLY APPRECIATED YOUR SUPPORT" must be careful not to use body language that would be more appropriate for signing "I LOVE YOU."

The key elements with respect to body language are the positions of the body, arms, and hands. Effective sign communication requires the ability to attend to each of these elements either in isolation or in combination. Examples of each of these elements are as follows:

3.1 Basic body positions



- a. Double-zero position: standing erect, legs straight, arms hanging from shoulders

Head tilt forward: modesty, timidity, humility, respect, sadness



- b. Forward inclination: standing in the double-zero position with the chest tilted forward and one foot out in front:

• struggle, order, threaten, admire, desire, ask, wish, promise, persuade



- c. Rear inclination: standing in the double-zero position with the chest tilted slightly backward with one foot behind the other:

ignorance, anxiety, astonishment, fear, hesitation, doubt



- d. Side inclination: standing in the double-zero position and resting body on one leg, resting hands on hips:

indifference, waiting

3.2 Basic position of the arms



- a. Raised elbows, sticking out: affectation, mannerism



- b. Thumbs in armholes of vest: assurance, independence

3.3 Basic position of hands



- a. Hands on hips: waiting, indifference

with forward inclination of the head: arrogance, challenge

Exercises #3

Clearly, body language and facial expressions can be incorporated into all verbal communication. The following are some situations that are commonly used by sign instructors to get their students to tune in their expressive communication skills to the dynamics of a visual-spatial medium. It should not be hard to think up more situations that are conducive to this type of creative exercise. In the first two sections, the emphasis is on pantomime which means that no formal signs should be used.

1. Pantomime by group
 - a. tug-o-war
 - b. slow motion in bowling, pitching a baseball, swinging golf club, football
 - c. chopping wood with an axe
2. Pantomime by individual
 - a. traffic cop
 - b. elementary school teacher
 - c. tourist
3. Group interaction using sign language
 - a. dentist office
 - b. camping
 - c. teen-age party

D. Practice Sentences

In the following, attention should be given to the appropriate use of body language and facial expressions throughout the entire sentence. Underlined words indicate specific instances that are more readily accompanied by body language and facial expressions.

1. I WAS SO SURPRISED TO LEARN THAT SHE MARRIED HIM. THAT'S AWFUL!
2. MY FRIEND LOST HIS JOB LAST MONTH. POOR FAMILY, THEY ARE STARVED.
3. MY CAR WAS VERY DIRTY. I WASHED IT AND IT NOW LOOKS CLEAN.
4. MY FATHER WAS VERY ANGRY AT MY BROTHER FOR CRASHING HIS NEW CAR.
5. THE UGLY DUCKLING IS THE HERO!
6. DO NOT TOUCH THIS PLATE. IT IS HOT.
7. IF YOU LIE, YOU WILL BE SORRY.
8. JOHN IS HEAVY, AND JANE IS LIGHT.
9. I SMELL GAS HERE. DO YOU?
10. DO NOT EAT TOO MUCH. YOU WILL GET FAT.
11. I DON'T-LIKE YOU BECAUSE YOU WON'T TELL ME WHO WON.

12. I SUSPECT THAT MY BROTHER IS HIDING SOMETHING.
13. MY MOTHER-IN-LAW ADMIRES YOUR BEAUTIFUL DRAWING. YOU HAVE GREAT TALENT.
14. AT THE AUTO SHOW LAST SATURDAY, I STRUGGLED TO OPEN A HOOD ON A NEW CAR.
15. IT WAS FUNNY. I LAUGHED HARD WHEN SHE TOLD ME HER STORY.

Lesson 3: Body and Gaze Shifting

A. Goals and Objectives

Goal:

Participants should be able to describe how the use of body and gaze shifting enhances modified Signed English.

Lesson Objectives:

Upon completion of this lesson, the participant will be able to

- 3.1 describe the principles of body and gaze shifting.
- 3.2 describe how the horizontal plane is used to identify "who" is talking.
- 3.3 describe how the vertical plane is used to indicate the relative height or status of a person.
- 3.4 demonstrate how body and gaze shifting are used to indicate the subject of a statement or "who is saying something."
- 3.5 demonstrate how body and gaze shifting are used to indicate "what" a person does.

B. Introduction

The visual-spatial nature of signing lends itself to the use of body language and facial expressions to enhance a signer's verbal communication. Sometimes, the body language and facial expression used are desirable but not essential components of a signed phrase. For example, in the phrase

THAT MAN OWNS A HUGE FARM

a signer could just sign the words without any change in facial expression or in body movements other than those necessary to produce the signs. In contrast, an articulate signer would tend to use a variation of the sign for LARGE to emphasize the meaning of huge and would also use appropriate facial expressions to further stress the largeness of the farm. In other cases, body language and facial expressions directly contribute to the syntax and the semantics of a phrase. In the phrase

I WANT FIFTEEN DOLLARS

a signer could change the meaning depending on the body language and facial expressions used. Thus, a skilled signer could produce a rhetorical question, a request, or a sarcastic remark without changing the signs used in the phrase.

In this lesson, the techniques of body and gaze shifting will be discussed and demonstrated. Body and gaze shifting are particularly interesting techniques because they help indicate, among several things, "what was said," and "who said it" or "what was done" and "who did it." This is accomplished through movement on the horizontal or vertical plane and the direction of a signer's gaze. The basic principle of this technique is that what a signer says or does is a direct reflection of what someone else has said or done. By shifting the body into a particular position a signer becomes a certain person where the identity of this person is derived from the context of the conversation. This can be demonstrated in the following phrases:

WHEN I WAS A KID MY MOM WOULD SCOLD ME FOR WATCHING TOO MUCH T-V.

SHE WOULD SAY, "YOUR EYES WILL TURN TO MUSH IF YOU KEEP WATCHING IT."

I WOULD REFUSE TO LISTEN TO HER.

While signing these phrases a person might turn the shoulders to the right and gaze slightly upward while signing "SCOLD ME," turn the shoulders to the left and gaze slightly downward when saying what the mother said, and then turn the head to the left when signing the last phrase. If the signer continued to talk about his mother, then usually each time he or she moved the shoulders to the left the listener would know that the signer is in the position of the mother. Baker and Cokely (1980) used the term "personalized" to describe a message that results when a signer assumes the role of another person and then proceeds to sign as if s/he were that person.

C. Procedure

Following are four basic techniques used in body and gaze shifting.

1. Horizontal plane: Movement to the right or left along the horizontal plane typically identifies "who" is talking. This movement can be made by (a) turning the shoulders and head to the right or left; (b) turning the head in either direction; (c) turning the whole body to the right or left; or (d) gazing to the right or left. In the phrase

THE WOMAN LOOKED UP AT THE BUILDING AND SAID THAT SHE FELT DIZZY BECAUSE IT WAS SO HIGH

a signer might turn the shoulder to the left and look upward while signing "LOOKED UP AT THE BUILDING" and then gradually return to a natural pose while signing the rest of the sentence.

2. Vertical plane: Movement up and down illustrates the different height or status of a person, and the different height of an object. For example,

SHE TOLD HER LITTLE BROTHER, "DON'T EAT CANDIES IN THE BEDROOM."

BUT HE RESPONDED BACK TO HER, "GO AWAY AND MIND YOUR OWN BUSINESS."

Here, a signer might look down and to the right when signing what the sister said, and then look up and to the left when signing what the brother responded.

3. Directional positions: Directional movements indicate the relative positions of the object or person being discussed. When signing a phrase that contains a directional verb a signer could turn his or her body to correspond with the movement of the verb sign. In the sentence

HE ASKED HER TO HELP HIM MOVE

the person indicated by the pronoun "HE" might be placed to the right of a signer and the person corresponding to "HER" might be placed to the left of a signer. Then, when signing this sentence the signer could (1) move his or her shoulders to the left and gaze to the left while signing "ASKED HER" and (2) move the shoulders to the right and gaze to the right while signing "HELP HIM."

4. Comparison: The visual-spatial medium provides a convenient means of making comparisons. This is done by locating objects in the signing space and then using body and gaze shifting to establish a comparison. A signer in the process of comparing two dogs might place one of them in the right side of the signing space and the other in the left side. Then, for example, by gazing downward to the right and smiling the signer is indicating some degree of affection or feelings towards that particular dog. A downward gaze to the left accompanied with a frown would make it obvious that the signer is not as pleased with that dog as with the other.

Exercise #1

One way of learning to incorporate body and gaze shifting into your signing behavior is to tell stories involving two or more people. At the beginning of the story be sure to establish each character in your story in a certain position in the signing space. Keep in mind the relative position of each character to one another. When assuming one of these characters shift your body and/or move your eyes as if you are actually talking to one of the other characters. Likewise, if describing an object (e.g., a car) or a thing (e.g., a mountain), then imagine it to be present and refer to it accordingly.

D. Practice Suggestions

The following situations or others can be used to create a story that will lead to much use of body and gaze shifting.

1. interaction in a dental office between a dentist, aide, and patient
2. the adventures of three persons climbing a mountain
3. a debate between two politicians
4. a teacher interacting with two parents at a parent-teacher conference
5. a young child talking to Santa Claus while sitting on his lap
6. the adventures of four people on a camping trip
7. the adventures of two boys picking out a puppy
8. an auto mechanic interacting with a customer
9. two friends at a high school reunion

Lesson 4: Fingerspelling

A Goals and Objectives

Goals:

Participants should be able to describe the importance of fingerspelling.

Participants should be able to describe how fingerspelling is incorporated into modified Signed English.

Lesson Objectives:

Upon completion of this lesson, the participant will be able to

- 4.1 understand that expressive fingerspelling is easier to learn and produce than receptive fingerspelling.
- 4.2 demonstrate how finger, hand, and wrist movements can help in reading and producing fingerspelled words.
- 4.3 fingerspell loan words in ASL that are no longer real fingerspelled words, but are instead treated as signs.
- 4.4 fingerspell highly practiced words that deaf children learn as being fingerspelled words.
- 4.5 describe the importance of introducing new English words in both writing and fingerspelling.
- 4.6 understand that fingerspelling requires much practice to attain fluency, and that carelessness should be avoided.
- 4.7 demonstrate hand configurations and movements for numbers.

B. Introduction

An important point that must be stressed in this lesson is that the pictures of fingerspelling that are often shown on fingerspelling cards and charts are static letters. Fingerspelling is a fluid, dynamic system, and there is much information that is lost from the static shapes, but found in the movement of the whole hand. Several facts about fluid fingerspelling must be noted:

1. It is important to recognize the alternative handshape forms of certain letters. These variations are found in fluent fingerspelling.

For example, G is often shown on fingerspelling charts with the fingertips pointed away from the signer. Yet, it is usually signed with the fingertips pointed toward the centerline of the body. Also, at the ends of words, it sometimes looks like a sideways L rather than a G, yet it still "reads" as a G.

The letter H, like G, is also often depicted with the fingertips away from the signer, but usually signed with the fingertips pointing toward the centerline of the body.

The letter X is sometimes signed with the palm facing the centerline of the body, rather than away from the signer.

The letter Y, in final position (e.g. in words like Mary), is usually signed with the palm down, facing the floor.

The letters M and N are often signed with the fingers sticking straight out, instead of folding over the thumb.

2. Reading fingerspelling involves being able to read the hand movements, as well as the hand shapes.

These hand movements sometimes include movement of the whole hand, for example, from the centerline outward to the ipsilateral side, much as a right-handed signer would write in the air.¹ Fingerspelling is never done from the side to the center, in mirror form, as you would expect the receiver to read. There is also a technique for fingerspelling double letters. In general, if the fingertips of the hand producing the letter are not touching each other (e.g., the index finger and thumb in the letter L, and the thumb and fingertips in the letter E), then the hand forming the letter glides to the right to indicate a double letter (e.g., KEEP, YELLOW, COBBLER). If the fingertips are touching (e.g., Q-Q and S-S) then the hand may remain in the same place while the fingertips move out slightly and then come together again to reform the letter (e.g., TOOK, SCISSORS). However, this rule is often dependent on an individual's signing style and a general rule is that all double letters can be indicated by simply moving the hand to the right for right-handed signers and to the left for left-handed signers.

3. Fluent fingerspelling comes only after much practice. Skillful fingerspellers use the whole hand to produce fingerspelled words. In contrast, inexperienced and careless fingerspellers tend to omit letters and misspell words. When learning to be a good fingerspeller it is important that each letter is carefully articulated. Some individuals might find this hard to do because they see others who seem to be fast fingerspellers. However, speed is not an object in fingerspelling and fast fingerspelling should not be equated with proficiency.

Four techniques that are helpful in becoming fluent in expressive and receptive fingerspelling are (a) practice, (b) using a mirror to self-monitor fingerspelling skills, (c) more practice, and (d) interacting with deaf adults who use signs.

Finally, a word must be said about students' fingerspelling. Teachers must ensure that their students are articulate fingerspellers. Correct and intelligible fingerspelling must be emphasized. Inaccurately spelled words

¹Left-handed signers would begin in the center and move left.

as well as poorly articulated signs should be corrected. After all, teachers are in a position to be their students' primary role model for signing and fingerspelling--the question that is all too seldom raised is whether or not teachers can meet this challenge.

4. Loan words (shown at the end of this lesson) that were introduced to ASL through fingerspelling are now truly signs. They have their own particular productions and semantics.

It is important for teachers to recognize loan words in signing. These words are actually signs and should not be produced like fingerspelling, since that might change the meaning of the word.

5. Producing numbers is like fingerspelling in that certain hand movements are characteristic of producing certain numbers. Obviously, there can be no shortcuts in expressing a number. However, the same numbers are not always produced in the same manner. For example, the hand movements leading to the number 7, is different when the seven appears in the number 17, 67 and the sign for SEVENTH.

A pedagogical note: Students often fingerspell words they come across in reading, without understanding what the word means. Teachers must remember that reading is more than simply decoding print. When students fingerspell unfamiliar words, all they are doing is decoding letters, a skill they could have mastered by the age of three. Can the student truly understand the text? Can the student use this fingerspelled word in novel situations? If there is no sign for a particular word, be sure the student can demonstrate productive use of the word in other contexts. Never assume a student knows a fingerspelled word unless you have observed the student using it productively, in signing and writing.

C. Procedure

What It Is and What It Is Not

Fingerspelling is based on the idea that you can represent each letter of the alphabet by a particular hand configuration, or hand configuration plus movement. Researchers in ASL linguistics, however, have shown repeatedly that there is much more to fingerspelling than this idea.

First, it is much easier to learn to produce the letters than to read fingerspelled words, even in context. In fact, young children seem to produce gestalts of the words years before they learn how to spell in English. Deaf children, who are unable to rely on the sound patterns of English, go through some interesting hypotheses about fingerspelling, beginning at age two or so, and moving through elementary school on the way to fluent, accurate fingerspelling.

Second, you can use movement information to help you read and produce fingerspelling. As your hand changes from one letter to another, you can facilitate that change by changing the movement of the fingers to the broader movements of the hand, or by adding wrist movement. This wrist movement can be demonstrated in the fingerspelling of the following words. One type of fingerspelling (e.g., W-H-E-N-E-V-E-R; E-V-E-N; T-H-E-N) would have each

letter formed in the same manner as it is formed in isolation. Another type of fingerspelling relies on the initial letters in some words (e.g., #WHEN, #EVEN, #THEN) to be formed with the palm facing sideways towards the center-line of the body.

Third, there are a number of words that, although they can be fingerspelled, they can also be produced in such a manner that they appear to be a sign. These words, often referred to as loan signs in ASL, are now articulated with ASL phonology, just like signs. They are not considered to be real fingerspelled words any more. A list of these words appears on the following page.

Fourth, highly practiced words sometimes take on the characteristics of loan words. These are words that teachers tend to fingerspell frequently in their class and that their students learn as fingerspelled words.

Some Suggestions for Fingerspelling

1. When new English words are introduced and it is desirable that students learn how to spell these words, present them both in writing and by fingerspelling letter by letter. Students must learn to recognize the same word in both codes.
2. Once students learn the target words, you may "smooth out" the spelling, but do not resort to careless fingerspelling. The smoothing out process will actually begin to happen of its own accord. The process of smoothing out refers to the blending of letters in a fluent manner.
3. Loan words should be treated as signs; that is, they should be produced as signs, and used with the meanings that have naturally evolved through sign language usage by the deaf community.

Suggestions for signing numbers

Numbers represent a unique part of "fingerspelling", in that a finite number of hand configurations are used to generate an infinite set of numbers.

The instructor will demonstrate the following cardinal numbers:

1-5: palm in

6-9: palm out

10: shake

11-15: palm in

16 and above: palm out

Multiples of 11. Palm down, bounce to the side

Twenties, except for 22: use L handshape to represent the "20" part
 There is a pattern to the next set:

67-69: begin with the palm up for 6

76: begin with palm down for 7

78-79: movement like 67-69

86-87: movement like 76

80: movement like 67-69

96-98: movement like 76

The pattern for signing the above numbers is that the wrist twists to the left (for right-handed fingerspellers) when going from a smaller number to a larger number. For example, from 6 to 7 in the number 67. The wrist twists to the right when going from a larger number to a smaller number. For example, from 9 to 8 in the number 98.

Fingerspelled Words Incorporated As
Loan Signs in ASL²

OR	TOY	BACK	EARLY
OF	DOG	SURE	TOAST
OH	FIX	BUSY	WOULD
HA	SEX	CLUB	BREAD
SO	OUT	COOL	YES
O.K.	OFF	HURT	WHAT
K.O. (knockout)	BUT	BANK	DO
GO	ASK	EASY	ALL
IF	JOB	NO	SOON
EX	N.G. (no good)		

ABOUT	FLY	OIL	THEN
AT ALL	FREE	ON	UNION
BROWN	GAME	PAY	UP
BURN	GHOST	PINK	WAIT
BUS	GRAY	POT	WELL
CALL	HALL	RICH	WHEN
CHEAP	HOT	SALE	WHO
CITY	LAW	SAY	WILL
DAY	NEWS	WHY	DID
ODD	SILLY	WOW	DOING
[CAR]	[STYLE]	[CAB]	

²Words in list taken from Battison, R. (1979). Lexical Borrowing in American Sign Language. Silver Spring: Linstock (p. 118).

D. Practice Suggestions

1. Use your spelling list for the week.
2. Practice spelling your name and address clearly and fluently. Remember, this information includes both letters and numbers.
3. Practice these letter combinations:

FOG--FIG
IS--IT
GHOST--AGHAST--LAUGH
PHONE--PHONY
FOX--FIX
SILLS--SILLY
FILLS--FOLLY
-ING
-MENT
-TION
-LY
-ILY
-PH
-IGH
-GH
-ER
-OR
-CK
-AY

UN-
RE-
PH-
GH-
CH-
SH-
CHR-
SHR-

-IGHT-
-OUGH-

E. Practice Sentences

1. THE FIRST ACCOUNT OF THE EXISTENCE OF A DEAF PERSON WAS BY HERODOTUS, A PERSIAN HISTORIAN, WHO LIVED FROM ABOUT 484 BC TO 425 BC.
2. IT IS WRITTEN IN LEVITICUS 19.14: "THOU SHALT NOT CURSE THE DEAF. . . ."
3. JUAN PABLO BONET, WHO LIVED IN SPAIN FROM 1597 TO 1620 WAS AMONG THE FIRST TEACHERS OF THE DEAF.

4. THE FATHER OF GERMAN ORALISM, SAMUEL HEINICKE, LIVED FROM 1729 TO 1790.
5. THE MILAN CONFERENCE IN 1880 BROUGHT ABOUT THE DOWNFALL OF MANUAL METHODS OF TEACHING DEAF PEOPLE.
6. THE COLUMBIA INSTITUTION FOR THE DEAF, DUMB, AND BLIND WAS INCORPORATED BY CONGRESS IN 1857.
7. PUBLIC LAWS 89-313 AND 94-142 MANDATE EDUCATION OF ALL HANDICAPPED CHILDREN.
8. I WAS BORN ON (MONTH), (DATE), (YEAR).
9. THIS INSERVICE RUNS FROM 6:30 TO 8:30 P.M.
10. I WOKE UP AT 7:00, 8:00, AND 8:45 LAST SATURDAY MORNING.
11. THE TRAIN TO TORONTO LEAVES AT 4:02 IN THE SUMMER AND AT 2:45 IN THE WINTER.
12. MY EVENING CLASSES GO FROM 6 TO 9.
13. THIS TERM, I'M TEACHING THREE CLASSES.
14. PRESIDENT REAGAN SIGNED THE CIVIL LIBERTIES ACT OF 1988 ON AUGUST 11TH.
15. THIS ACT PROVIDES FOR PAYMENTS OF \$20,000 TO SURVIVORS OF THE JAPANESE-AMERICAN INTERNMENT CAMPS DURING WORLD WAR II.
16. CALL 1-800-228-8375 FOR MORE INFORMATION.
17. LANSING ZIP CODES START WITH 489.
18. MY ZIP CODE IS _____.

Lesson 5: Classifiers

A. Goals and Objectives

Goal:

Participants should be able to describe how the use of classifiers enhances modified Signed English.

Lesson Objectives:

Upon completion of this lesson, the participant will

- 7.1 understand the importance of using classifiers in modified Signed English.
- 7.2 be able to recognize and use classifiers to represent and describe an object's size, shape, texture, location in space, and movement.
- 7.3 understand the importance in signing the object first and then using the classifier.
- 7.4 be able to demonstrate classifiers representing nouns.
- 7.5 be able to demonstrate classifiers representing verbs.
- 7.6 be able to demonstrate classifiers representing adjectives.
- 7.7 be able to demonstrate classifiers representing adverbs.
- 7.8 be able to demonstrate classifiers representing relationship and movement.
- 7.9 be able to demonstrate classifiers representing quantity.

B. Introduction

Classifiers are a set of words used to describe the size, shape, texture, location, and movement of objects. These words are called classifiers and are represented in the "handshape" part of a sign.

Classifiers are not unique to ASL. Indeed, Navajo uses classifiers in ways almost identical to ASL. Japanese uses classifiers only when counting people, objects, and events. Native speakers of English find classifiers difficult because English has no classifier system.

A related process for describing objects is outlining for shape and detail. In outlining, a single handshape is used (the pointing hand), and the fingertip draws shapes in the air. This is not a true use of the classifier system, but is discussed in this lesson, as part of the processes of "scouting space."

C. Procedure

Unlike spoken English, sign language uses space. Well-articulated signs can be so graphic that you can clearly see "movies" in the air. Classifiers play an important role in picture-like communication. Classifiers are handshapes used to describe an object by representing its

- a. size
- b. shape
- c. texture
- d. location in space
- e. movement

In modified Signed English a signer needs to first sign an object before using the classifiers.

Example A: (size)

Signed English without classifier:

I GAVE HER A BIG CHOCOLATE CHIP COOKIE.

Signed English with classifier:

I GAVE HER A BIG CHOCOLATE CHIP COOKIE "LL, SIZE OF COOKIE."

Example B: (shape)

SHE BOUGHT A BEAUTIFUL (HEART-SHAPED) MIRROR "1, SHAPE OF HEART."

Example C: (texture)

MY HOUSE HAS A NEW SOFT THICK CARPET "G, THICKNESS OF CARPET."

Example D: (location in space)

I SAW A BOX ON THE TOP OF THE SHELF "A, PLACE ON SHELF."

Example E: (movement)

JOE COMES TO ME "1, TOWARDS SIGNER."

YOUR NOSE IS BLEEDING "4, DOWN FROM NOSE."

Below is a list of some of the sign language classifiers and some of the nouns, verbs, adjectives, and adverbs that they can represent.

CLASSIFIER

REPRESENTATION

1. "3" handshape horizontal

car, van, bicycle, bus, boat



2. "1" handshape upright

person



3. "1" handshape horizontal

cigarette, pencil, log



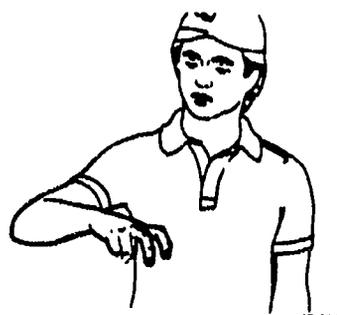
4. "B" handshape horizontal

piece of paper, leaf, kite, bed



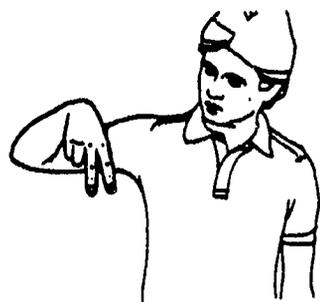
5. double "X" handshape horizontal
fingertips pointed downward

chair, person, or animal seated



6. "V" handshape inverted

person standing, walking



7. "F" handshape horizontal

small, flat and round objects,
coin, button, watch



8. two "L" handshapes, forming
large horizontal circle

larger flat and round objects
such as a large plate, steak,
large hole



9. "C" handshape horizontal

small container-like objects
cup, glass, bottle, vase, can



10. two "C" handshapes parallel to each other, horizontal

medium size container-like objects, bowl, large can, thick cable



11. two "C" handshapes wider parallel to each other, horizontal

larger container-like objects, to large bowl, hat box



12. two "B" handshapes, palm down parallel to each other

objects with flat surfaces, top of a small table or shelf



13. two "B" handshapes, palm down, parallel to each other, move farther in opposite directions



longer objects with flat surface,
long shelf, long table

14. "G" handshape



small amount of liquid, solid,
height of stack

15. "L" handshape, bend index
finger



medium amount of liquid, solid
and height of stack

16. two "B" handshapes, one palm
up and another palm down,
facing each other



large amount of liquid or solid
and height of stack

17. "A" handshape



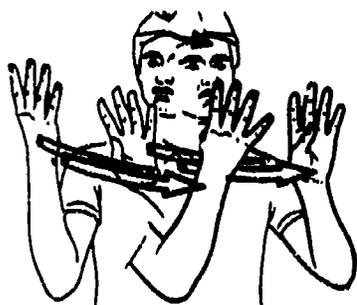
any stationary object such as a house, vase, statue, lamp, company business

18. two "5" handshapes, palms down, parallel, wriggling fingers forward



large quantity of people, cars, animals, etc., moving toward a specific location

19. two "4" handshapes, upright in line, repeated forward move



continuing stream of people or animals filing past

20. two "4" handshapes, palms down in line, repeated forward move



continuing stream of objects filing along as on an assembly line

21. "4" handshape, palm on side,
move up and down repeatedly

flow of liquid



B. Relationship and Movement

1. objects or vehicles next to
each other



2. objects or vehicles in front of
each other



3. persons facing each other



4. flat object on top of another



5. object on top of a flat surface



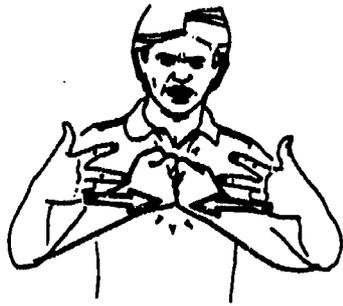
6. object under a flat surface



7. one vehicle passing another



8. two vehicles colliding head-on



9. person diving off a platform



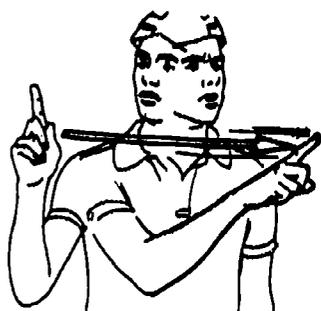
10. container falling off a flat surface



11. person turns away



12. person passes by quickly



13. person walks by



14. person or animal goes up to another person or animal



15. two people or animals go up to another person or animal



16. two people follow another person or animal from behind



17. person approaches another person, hesitates and walks away



C. Quantity

1. many objects (boyfriends, shirts, books) "4 line 4" (fingertips of 4 hands face each other then one hand moves downward)
2. small pile of objects (dishes, food, homework) B hand shape forms an arc
3. large pile of objects (clothes, furniture, dishes) double "B" handshape with one hand forming an arc.
4. many objects in a row (row of bicycles, houses) "3" handshape repeated in a row
5. many objects all over (bicycles, houses) "A" handshape repeated in a row "B" handshape repeated in a row

D. Exercises

Create sentences using classifiers from Norman Rockwell pictures.

E. Practice Sentences

In the following sentences, it might be necessary to sign some of the sentence first in modified Signed English and then use classifiers to convey the meaning of the sentence.

1. THE PENCIL WAS LYING ON THE DESK.
2. THE CAR BACKED OUT OF THE GARAGE AND WENT DOWN THE STREET.
3. WHILE WAITING FOR HIS DINNER, THE KITTEN SAT PATIENTLY BY THE REFRIGERATOR.
4. I SAW JENNY HURRIEDLY WALKING INTO THE STORE.
5. THAT SHIRT HAS LARGE BUTTONS.
6. THE TABLE WAS SO LONG THAT IT COULD SEAT 25 PEOPLE.
7. SHE HAD FEW REPORTS TO GRADE.
8. HIS BUSINESS IS ON THE CORNER OF MAIN AND LENNOX.
9. THE CROWD MOVED TOWARD THE SINGER.
10. THE BOXES CONTINUED ON THE CONVEYOR BELT.
11. HIS NOSE WAS BLEEDING PROFUSELY.
12. SIX RED VW'S WERE PARKED IN A ROW.
13. THE BOTTLE WAS ON TOP OF THE MAGAZINE.
14. A GLASS BOWL FELL OFF THE COUNTER.
15. THE MAN CAME UP TO ME, THEN TURNED AND WALKED AWAY.
16. AFTER HER TRIP, MY FRIEND HAD A LOT OF LAUNDRY TO WASH.
17. THE COWS FILED PAST THE FARMER AND WENT INTO THE BARN.
18. EIGHT WHITE HOUSES LINED THE STREET.

Lesson 6: Locatives

A. Goals and Objectives

Goal:

Participants should be able to explain the rationale and principles for using the available signing space.

Lesson Objectives:

Upon completion of this lesson, the participant will be able to

- 5.1 describe the function of locatives as they are used in signing.
- 5.2 describe how directional verbs, classifiers, and indexing are used to specify locations.
- 5.3 demonstrate how directional verbs can be used to specify locations.
- 5.4 demonstrate how classifiers can be used to specify locations.
- 5.5 demonstrate how indexing can be used to specify locations.
- 5.6 identify various locative signs.

B. Introduction

The spatial relationship between two or more things can be described in a variety of ways in signs. The words or signs used to describe these spatial relationships are referred to as locatives because "they indicate the spatial location of something in relation to something else" (Baker & Cokely, 1980, p. 333). In English, locatives are, for the most part, prepositions such as in, on, at, underneath, over, and other words. In signing, locative signs (e.g., IN-FRONT-OF, NEXT-TO) can be used to indicate spatial relationships. In modified Signed English, sign locatives are commonly used.

Not so common among signers who use a manually coded English system or pidgin sign are the American Sign Language techniques for indicating locations. These techniques include the use of classifiers, directional verbs, and indexing. The incorporation of locatives into these techniques is the main thrust of this lesson.

C. Procedure

1. **Classifiers:** Many classifiers have much flexibility and can be easily moved about within a signing space. The movement of a classifier from one place to another or the placement of a classifier in relation to another sign are two ways of indicating a spatial relationship. The following sentences illustrate how classifiers can be used to indicate spatial relationships.

THE BOY WAS STANDING BY THE MOTORCYCLE.

Here, the classifier for person and motor vehicle (see lesson on Classifiers) can be placed side by side to indicate the proximity of the boy to the motorcycle. By having the two classifiers touch it could then be shown that the boy was leaning against the motorcycle. Other manipulations of the two classifiers can be used to show such spatial relationships as, "the boy was sitting on the motorcycle." "the boy was standing in front of the motorcycle," and "the boy was lying behind the motorcycle."

In the sentence

THE GIRL WENT PAST THE CAR

the "one-handshape" classifier person would move in front of the classifier for motor vehicle. Thus, the movement of a classifier indicates the relative action of a person as well as the spatial relationship of that person to another thing.

2. Directional verbs: The location of a particular action or event can be indicated by movement of a directional verb (Baker & Cokely, 1980). Examples of how this can occur are as follows:

THE GIRL WALKED PAST THE BUILDING

In this sentence the "V-handshape" for walk can be moved in front of the classifier for building. This would indicate where the girl was, in relation to the building. In

THE TWO PLANES FLEW TOGETHER FOR A LONG TIME

both the right and left hand would use the sign for plane to indicate that two planes flew close together over an extended period of time.

3. Indexing: This is perhaps the easiest means of indicating locations. It simply refers to the process of pointing with the index finger, as a means of showing where something is either in relationship to another thing or by itself. The thing being pointed out can either be present or not present. If present, a signer merely points to it. If not present then the signer would point to those places in the signing space where something has already been established. For example, if a table had been set up in the signing space, then a signer could point to some point around the table to indicate the relative spatial relationship of a something to the table. In

THE FLOWER WAS ABOUT THERE

a signer could point to a spot in the front of a table to indicate the relative location of the flower. Hence, to use indexing effectively it is important that a signer first become familiar with all of the ASL principles that allow a person to maximize the benefits of incorporating clear representations of locatives.

4. Sign locatives: Although, it has been stated that ASL does not tend to use sign locatives as much as English uses prepositions (Baker & Cokely, 1980), ASL does have signs that can be used to represent these prepositions. In modified Signed English the use of sign locatives should tend to match the use of prepositions used in English. The use of other forms of sign locatives should be used in an adjunct capacity, that is, after an English phrase has been signed. In

THE GIRL JUMPED OVER THE HOLE

a person might sign the sentence as it is and then use the appropriate classifiers to indicate the meaning of this sentence.

Some sign locatives are represented in English with more than one word. For example, IN-FRONT-OF, AHEAD-OF, SIDE-BY-SIDE, and NEXT-TO can all be expressed with just one sign or they can be expressed by using a sign-to-word correspondence. It is highly advisable that you use whatever you do use consistently throughout the program.

Exercise #1

1. Create sentences in which each of the following prepositions are used:

- | | | |
|----------|-------------|------------|
| IN | ON TOP OF | INSIDE |
| ON | AT | OUTSIDE |
| BY | WITH | ALONGSIDE |
| NEXT TO | CLOSE TO | NEAR |
| FAR FROM | IN FRONT OF | IN BACK OF |
| BEHIND | AGAINST | ABOVE |
| BELOW | BENEATH | UNDER |
| AROUND | BETWEEN | AMONG |

2. Create sentences in which the following verbs are used to indicate location

- | | |
|--------|--------|
| GO | WALK |
| MOVE | FLY |
| BRING | DRIVE |
| COME | PUT |
| RUN | ARRIVE |
| GET TO | |

3. Describe various positions in which a child might be located in relation to a table. For example,

- | | |
|-----------------|--------------------|
| ON TOP OF | WALKING UNDERNEATH |
| NEXT TO | NEAR |
| LEANING AGAINST | BETWEEN TWO TABLES |
| FAR FROM IT | LYING UNDERNEATH |

D. Practice Sentences

1. THE MAN KNOWS MY BROTHER.
2. HE IS HIS TEACHER.
3. SHE IS HER MOTHER.
4. THE NEIGHBOR IS NEXT DOOR TO ME.
5. HE FELL OVER THE FENCE.
6. SHE FELL DOWN THE HILL.
7. THERE ARE TREES ON THE SIDE OF THE HILLS. (UPWARD)
8. THE FENCES ARE ON THE SIDE OF THE HILLS. (DOWNWARD)
9. THE WATERFALLS ARE BEAUTIFUL.
10. I ARRIVED AT THE TOP OF THE MOUNTAIN.
11. IT TOOK 13 MINUTES TO GET THERE.
12. I LOOKED DOWN AND FOUND THE TREES BELOW ME.
13. I DROVE TO THE POST OFFICE AND SENT THE BOX, THEN DROVE TO THE STORE TO BUY FOOD AND THEN I DROVE HOME.
14. THE BLUE CAR OVER THERE BELONGS TO A FRIEND OF MINE.
15. HE WAS HERE BY ME A WHILE AGO.
16. HIS MOTHER OFTEN TOLD ME THAT HE NEVER LIKED SLEEPING.
17. HE IS A TRUSTING PERSON BUT NOT A SHARP THINKER.
18. I CAUGHT 14 MICE YESTERDAY RUNNING AROUND MY ROOM.

Lesson 7: Indexic Referencing and Localization

A. Goals and Objectives

Goal:

Participants should be able to explain the rationale for using references in modified Signed English.

Lesson Objectives:

Upon completion of this lesson, the participant will be able to

- 6.1 describe the rationale for using references in sign language.
- 6.2 demonstrate how to keep the location of nouns consistent within each story or situation.
- 6.3 describe how verbs indicating motion can be used with prepositions, nouns, and pronouns to describe actions among the different locations established.
- 6.4 use verbs that can be localized on the body or in space in order to show relationship to nouns.
- 6.5 demonstrate techniques of eye gazing and body shifting when using references in situations where nouns and pronouns are not present.
- 6.6 establish situations incorporating nouns and pronouns and when necessary in conjunction with locatives by fingerspelling, signing, using classifiers, or pointing depending upon the situation or setting required.

B. Introduction

The following examples are practice sentences in groups of two or three as that is when these objectives become important. They are less important in isolated sentences. These numbered examples coordinate with the same numbered objectives.

This story is about the Three Bears:

- 6.2.1 PAPA BEAR (loc. 1), MAMA BEAR (loc. 2), AND BABY BEAR (loc. 3). PAPA BEAR'S CHAIR (loc. 1) WAS HARD, MAMA BEAR'S CHAIR (loc. 2) WAS SOFT, AND BABY BEAR'S CHAIR (loc. 3) WAS JUST RIGHT.

In this example, and indeed throughout this story, we want to set up PAPA in one location, MAMA in another location, and BABY in a third location. Then the bowls of porridge, chairs, and beds can be associated with each location, keeping the characters' locations constant. An example of how locations can be established is shown in the following diagram.

X	X	X
loc. 1	loc. 2	loc. 3

Signer

6.2.2 I (signer) WENT TO THE STORE (loc. 1) TO BUY A BATTERY. WHEN I GOT HOME (loc. 2), I DISCOVERED I HAD BOUGHT THE WRONG KIND, SO I WENT BACK TO THE STORE (loc. 1) TO EXCHANGE IT.

In this example, if we "set up" the store in loc. 1, we must return to loc. 1 to change the battery.

6.3 FIRST I WENT TO THE RESTAURANT TO PLACE A TAKE-OUT ORDER. WHILE I WAS WAITING, I RAN TO THE JEWELER'S TO DROP OFF MY BROKEN WATCH. I WENT BACK TO THE RESTAURANT, PICKED UP MY FOOD, AND DROVE TO MY MEETING. I ATE THERE. THEN I WENT TO THE JEWELER'S TO PICK UP MY WATCH, BUT IT WASN'T READY YET, SO I LEFT IT THERE AND WENT HOME.

In this example, we have a restaurant, a jeweler's place, a meeting place, home, and a person either running or driving among these locations. The first verb, WENT (TO) must move from (presumably) HOME (at loc. 1) to loc. 2, which is the RESTAURANT. Then the person RAN (TO) loc. 3, the JEWELER'S. From there, she WENT BACK (TO) the RESTAURANT at loc. 2. The MEETING was at loc. 4, from where she WENT (TO) loc. 3 to PICK UP her watch (also at loc. 3) which wasn't ready so she LEFT (toward loc. 3) it THERE (loc. 3) and WENT home to loc. 1.

6.4 Not all verbs move among locations. Some verbs begin on the body and end at locations, or are signed at the locations. Some verbs are always signed on the body. Here is a list of some verbs that can take subjects and objects (loc. 1 and 2); that is, move among locations:

GIVE	JOHN GAVE ME A BOOK TO GIVE SUE.
SHOW	SHOW ME YOUR WORK.
RUN	RUN UP THE HILL.
GO-ON-FOOT	WALK FROM SCHOOL TO THE STORE.
JUMP	JUMP IN PLACE, THEN JUMP IN A CIRCLE.
WATCH	WATCH HIM WATCH HER.
ASK	BILL ASKED MARY A QUESTION.

These verbs start on the body, but end at the proper location:

TELL	SHE TOLD HIM THE ANSWER.
SEE	I CAN SEE WHAT YOU'RE DOING.

These verbs stay on the body:

SAY	WHAT DID YOU SAY?
EAT	DON'T EAT YOUR VEGETABLES.
UNDERSTAND	I COULDN'T UNDERSTAND A WORD SHE SAID.
PRINT	THE BOOK IS BEING PRINTED.

These verbs are signed at the location:

WRITE	WRITE IT ON THE BOARD.
READ	READ DOWN FIRST, THEN ACROSS.
FALL	JACK AND JILL FELL DOWN THE HILL.

6.5 & Objectives 5 and 6 can be met by practicing fairy tales
6.6 and children's stories. The signer is required to set up
and retain everything consistently. Direct discourse is
another place where eye gaze and body shifting is important.
For example:

MOTHER SAID, "DON'T STOP AND TALK WITH STRANGERS."
"OK," REPLIED LITTLE RED RIDING HOOD.

The first quote should be signed gazing down and to the side (loc. 1)
as if talking to a child. For the reply, the signer should take the role
of the child and gaze up as if speaking to an adult.

C. Procedure

In the prior section, we talked about locatives, or the spatial
relationships among the nouns in a sentence. Next, we will be exploring
the expression of spatial relationships in various ways.

Expressing oneself clearly in the visual modality means that you have
to keep the locations of all of your nouns consistent. This section
explores the use of referencing nouns in complex utterances. You will
practice the use of verbs and pronouns in the context of simple stories
that require you to refer back to characters and places already mentioned.

Pronouns (also called Indexic Reference): A Review

There are several ways for signing pronouns. We can use signs that
specify third person gender (HE/SHE/IT; HIM/HER; HIS/HER[S]), as well as
other personal pronouns (I/YOU/WE/YOU-PL./THEY/THEM). These signs can be
used in conjunction with a general point (PT) to localize the character in
space. You must keep these locations consistent.

For example. SHE WON THE SPELLING BEE.
I GAVE MY BOOK TO HIM. WHEN HE WAS DONE, HE GAVE IT
BACK TO ME.

These sentences are simple; by themselves they are insufficient to meet all of your communication needs. You can use verbs flexibly among the locations established by you for your nouns.

Consider the following verbs of locomotion:

RUN	DRIVE	CHASE
WALK	FLY	JUMP
SWIM (fish)	SKID	FALL
SWIM (people)	CLIMB	

These verbs can be used with prepositions to indicate where an action is taking place, for example

HE WALKED UNDER THE BRIDGE.

These verbs can also be used with other nouns and pronouns to show who or what is doing the action:

HE FELL WHEN HE HIT THE TELEPHONE POLE.

Other verbs can be used (localized) in space or on your body to correspond to where the nouns are:

PUT	WASH	FEED
WRITE (on paper)	READ (a book)	HURT (headache; sore throat)
WRITE (on board)	READ (road sign)	

Most verbs are more complicated and use the full directionality system to keep all the relationships among the nouns straight. We will explore the directionality system at a later date.

D. Practice Sentences

1. THE CAT RAN UP THE TREE AND GOT STUCK THERE.
2. DADDY WALKED AROUND THE TABLE.
3. OUR DOG JUMPED OVER THE BUSH AND RAN UNDER THE FENCE.
4. MY JOB IS TO WASH THE CAR; MY BROTHER BATHES THE DOG.
5. WHEN THE GIRL FELL OFF HER BIKE, SHE HURT HER LEG.
6. AT THE LAKE, WE WATCHED THE FISH SWIM IN THE WATER.
7. MY CAR SKIDDED OFF THE ROAD AND ALONG A FENCE.

E. Practice Paragraphs

ONCE THERE WAS A BIG, BEAUTIFUL CALICO CAT NAMED AGATHA, WHO LIVED IN A HOUSE WITH A HUGE OAK TREE IN THE BACK YARD. ONE DAY, AGATHA WAS WALKING AROUND THE YARD, PLAYING AMONG THE COLORFUL LEAVES WHEN SHE SPOTTED A NICE PLUMP SQUIRREL UNDER THE TREE, EATING AN ACORN. AGATHA KNEW IT WAS FUN TO CHASE SQUIRRELS AND WANTED TO CHASE THAT SQUIRREL.

SO SHE WALKED VERY CAREFULLY AND VERY QUIETLY UP TO THE SQUIRREL, AND JUMPED AT HIM. THE SQUIRREL WAS QUITE FRIGHTENED AND DASHED UP A TREE. EXCITEDLY, AGATHA RAN UP THE TREE, TOO, AND GOT STUCK HALFWAY UP IN THE TREE. SHE LOOKED OVER HER SHOULDER DOWN TO THE GROUND. AGATHA FELT SAD AND WISHED SHE HAD BEEN MORE CAREFUL.

ONCE UPON A TIME, THERE WAS A FOX WHO WAS HUNGRY FOR SOMETHING TO EAT. HIS STOMACH WAS GROWLING AND MAKING ALL KINDS OF FUNNY NOISES. AS HE WAS WALKING ALONG, HE SPOTTED A BUNCH OF JUICY RED GRAPES HANGING FROM A TREE. HE WANTED TO EAT THOSE GRAPES.

SO, HE JUMPED UP TO GET THE GRAPES, BUT HE MISSED BY AN INCH. HE JUMPED AGAIN, AND AGAIN HE MISSED THE GRAPE. HE JUMPED FOR A THIRD TIME, AND MISSED AGAIN.

HE GOT ANGRY, AND WENT OFF IN A HUFF. HE THOUGHT, "I DON'T WANT THOSE GRAPES. THEY WERE PROBABLY SOUR ANYWAY."

ONCE THERE WAS A GIRL WHO HAD A FROG NAMED MORRIS. MORRIS LIVED IN A BIG JAR AND ATE FLIES. ONE DAY, MORRIS CLIMBED OUT OF HIS JAR AND HOPPED OUT THE WINDOW AND RAN AWAY. THE LITTLE GIRL COULD NOT FIND MORRIS.

SO, SHE WENT TO THE WOODS TO LOOK FOR MORRIS. SHE LOOKED FOR MORRIS

ALL DAY. SHE CALLED AND CALLED HIS NAME, BUT MORRIS DID NOT ANSWER.
SADLY, THE LITTLE GIRL WENT HOME.

WHEN SHE GOT HOME, SHE SAW LITTLE WET FOOTPRINTS. SHE FOLLOWED THE
FOOTPRINTS, AND GUESS WHAT? MORRIS WAS IN HIS JAR, WITH ANOTHER FROG!
THE LITTLE GIRL WAS HAPPY BECAUSE NOW SHE HAD TWO FROGS.

Lesson 8: Directionality

A. Goals and Objectives

Goal:

Participants should be able to explain the rationale and principles for using directionality in modified Signed English.

Lesson Objectives:

Upon completion of this lesson, the participant will

- 8.1. understand the rationale and principles for using directionality.
- 8.2 be able to incorporate directionality in verbs that inflect for agent, source, object, or goal.
- 8.3 recognize and demonstrate verbs that indicate agent, source, object, or goal.
- 8.4 recognize and demonstrate reciprocal verbs by appropriately attending to each hand's location, movement direction, and orientation.
- 8.5 recognize and demonstrate verbs that indicate movement from a source to a goal.
- 8.6 recognize and demonstrate verbs indicating action, location on a person's body, or in the signing space.

B. Introduction

In a previous lesson the concept of locatives or words that indicate location was introduced. Briefly, locatives refer to the notion of nouns being located in certain positions in real space as well as in the signing space. For example, in the sentence "The boy is standing next to the car" the classifiers for person and car would be used to indicate the spatial relationship of the boy and the car that the signer is trying to describe.

In this section, directionality, a common characteristic of verbs, is described. The underlying principle of directionality is the semantic relationships among nouns and the signer, that certain verbs can demonstrate. They are shown through the movement of the verb sign. In modified Signed English we can use both word order and directionality to express semantic relationships; that is, in the three dimensions of the signing space, nouns can be set up in directional verbs. For example, in the sentence "THEY GAVE THE BOOKS TO THEM," the sign for GAVE would move from the position of THEY to the position of THEM. Typically, the position for THEY and THEM would be set up according to how these two groups had previously been established in the signing space.

Another example of how directional verbs are used is illustrated in the use of those verbs in which the orientation and movement of the hand(s) are critical. In the sentence

HE WAS PICKING ON ME

the nondominant hand for the sign PICK(-ON) is placed near the signer's body, the palm orientation of the dominant hand is towards the body, and the movement is from the spatial position for HE towards the nondominant hand (ME).

In this lesson you will be introduced to a list of verbs that inflect for agent, source, object, or goal. The agent is the doer of the action described by the verb. The source is the beginning location of the verb. The object is the recipient of the action. The goal is the end location of the verb. Using the preceding sentence it is seen that the agent is the person representing HE; the source is the position in the signing space in which HE has been established; the object is the person representing ME (that is, the signer); and the goal is the position of the nondominant hand which is located near the signer.

C. Procedure

1. Verbs that indicate agent/source and object/goal.

The use of directional verbs in modified Signed English is similar to their use in ASL. However, in modified Signed English it is also necessary to sign those English words that in ASL have already been incorporated into the verb. This difference between the two signing methods is shown in the following sentence:

I BAWLED HIM OUT.

In ASL one sign is used to express this sentence. In modified Signed English the signer would (a) sign I; (b) sign BAWL-OUT in a direction that moves from the signer's body (agent/source) to the space representing HIM (object/goal); (c) sign the marker for past tense; (d) sign HIM; and (e) fingerspell OUT. In

HE RIDICULED ME.

The signer signs (a) HE; (b) RIDICULE--moving from the position HE (agent/source) towards him/herself; (c) the marker for past tense; and (d) ME.

Following is a list of verbs (taken from Baker and Cokely, 1980) that can be used to indicate the agent and source of an action and the object and goal of that action.

ADVISE	PICK ON	
ANNOUNCE	GIVE	
APPROACH	HATE	PITY
ARREST	HELP	PREACH
ASK	HIT	PUT THUMB DOWN
BAWL-OUT	HONOR	QUIT
BEAT	INFLUENCE	RESPECT
		NO

BEAT-UP
 BLAME
 BORROW
 BOTHER
 BRIBE
 CHALLENGE
 COLLIDE
 CONFRONT
 COPY
 CRITICIZE
 DECEIVE/FOOL
 DENIGRATE/PUT DOWN
 FINGERSPELL
 FLATTER
 FORCE
 GET-EVEN-WITH
 REVENGE
 PAY ATTENTION

INFORM
 INSULT
 INTERROGATE
 INVITE
 JOIN
 KICK
 KILL
 KISS
 LOOK
 CONTACT
 RIDICULE
 MESH-WITH
 MOOCH-FROM
 ORDER/COMMAND
 OVERCOME/DEFEAT
 PARTICIPATE/JOIN
 PAY
 PICK

YES
 OK
 SCOLD
 SELL
 SEND
 SHOOT
 SHOW
 STEAL
 SUMMON
 SUPPORT
 SUPPRESS
 TAKE-TURNS
 TEACH
 TEASE
 TELL
 TOUCH
 TOW

2. Reciprocal verbs.

Some verbs are reciprocal in that they are able to indicate that a particular action is performed by two people, two things, or two groups with each of the hands representing one person, thing or group. When using these signs it is important to attend to the location of the hands, the direction in which they are moving, and the orientation of each hand relative to the body. Semantically, the following list of verbs inflect for both agent/ source and object/ goal.

AGREE-
 APPROX
 CHALLENGE
 CHANGE PLACES
 CLASH
 COLLIDE

CONFLICT
 CONFRONT
 CORRESPOND
 DISAGREE
 INFORM

INSULT
 PITY
 QUARREL
 STRUGGLE
 TEACH

3. Verbs indicating movement from a source to a goal.

In the sentence

SHE ARRIVED AT THE TOP OF THE MOUNTAIN

the sign ARRIVED will start in front of the signer's chest and then move up to a position that is in front of the signer and slightly above the signer's head. Other examples of this type of verb are as follows:

ARRIVE
 ASSEMBLE
 BRING
 CARRY TO
 COME/GO
 COMMUTE - BETWEEN
 BACK-AND-FORTH
 DROVE

PATRONIZE
 GO
 ATTEND
 JUMP
 MOVE
 PLANE-CRASH
 PLANE-LAND
 PLANE-TAKE-OFF

ENTER/GO
 FLY
 RUN
 (RIDE IN)-VEHICLE
 (RIDE ON)-ANIMAL

4. Verbs indicating the location of actions on the body or in signing space.

There are also some verbs that, although they do not indicate the direction of an action, they do indicate the relative location of an action. These verbs are used by moving them about to the location of the action either on the signer's body or in the signing space. For example, in

SHE SCRATCHED HER LEFT ARM

the signer would produce the sign SCRATCH on his or her left arm. Likewise, in

HE WAS BLEEDING FROM HIS SHOULDER

the sign for BLEED would be done from the shoulder.

BANG-(ON)	HIT(ON)
BITE-(ON)	HURT
BLEED-(FROM)	KICK(ON)
BRUISE-(ON)	KNOCK(ON)
CUT-(AT) WITH-KNIFE	PERSPIRE
CUT-(AT) WITH-SCISSORS	PUSH
GRAB	READ
HAVE-FRECKLES-ON	SCRATCH
OPERATION	SHAVE
RASH	TAP
WASH	WRAP-BANDAGE-ON

D. Practice Sentences

1. JOHN GAVE MARY HIS BOOK ABOUT PLANTS.
2. MARY BORROWED \$5.00 FROM ME.
3. I LOANED MARY \$5.00 EVEN THOUGH SHE OWES ME \$2.00 ALREADY.
4. WE PLANTED ROWS OF BULBS IN THE FALL FOR BEAUTIFUL SPRING FLOWERS.
5. DID YOU CALL THE POLICE OR DID YOU CALL THE AMBULANCE?
6. THE PROBLEM IS THAT I THINK JERRY PUSHED TIMMY FIRST, BUT ANDREA SAID SHE SAW TIMMY PUSH JERRY.
7. WILL YOU HELP ME TEACH MATH TO HER?
8. I THINK PAT COPIED FROM JO, BUT MAYBE JO SHOWED PAT HER PAPER.
9. THE MALL HAD A SIDEWALK SALE, SO I BOUGHT A SWEATER AT PENNEY'S AND MY DAUGHTER BOUGHT SOME SHOES FROM KINNEY'S.
10. THE CITY PLOWED THE STREET, THEN SPRINKLED SALT ON THE ROAD.
11. I FLEW FROM CHICAGO TO DETROIT, THEN DROVE HER FROM DETROIT.

12. I WILL WRITE IT ON THE BOARD. YOU WRITE IT IN YOUR BOOK.
13. GATHER UP THE PENCILS, AND LEAVE THEM IN THAT BOX.
14. I SAW KATHY TEASING HER SISTER.
15. JIMMY INVITED KENNY TO HIS PARTY. HE DID NOT INVITE JOEY. JOEY TOLD KENNY THAT HE (JOEY) IS MAD AT JIMMY.
16. MY DAD WATCHES 2 FOOTBALL GAMES ON 2 TV'S AT THE SAME TIME. YOU SHOULD SEE HIM DO THAT!
17. LET'S WALK AROUND THE ROOM.
18. WHEN ALAN ARRIVED, EVERYONE LEFT.
19. ARE YOU JOINING US, OR JOINING THEM?
20. THE GOVERNMENT FORCED HER TO PAY HER TAXES.
21. YOU CAN'T DEPEND ON ME ALL THE TIME; YOU HAVE TO DEPEND ON YOURSELF!
22. TAMIKO WILL ASK MELISSA A QUESTION. MELISSA WILL ANSWER, THEN SHE WILL ASK SOMEONE ELSE A QUESTION. LOOK AT TAMIKO FIRST.
23. FEED THE DOG THIS FOOD, AND FEED THE CAT THIS (DIFFERENT) FOOD.
24. YOU HAVE A CHOICE OF APPLES OR ORANGES. PICK ONE OR THE OTHER.
25. WE ENTERED FROM THE RIGHT. THEY ENTERED FROM THE LEFT.

Appendix C

AFFIXES, SIGN MARKERS

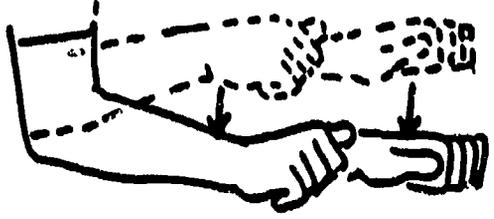
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Appendix C
AFFIXES, SIGN MARKERS

SIGNS	DEFINITIONS	WORDS
 <p>-ABLE, -IBLE</p> <p>"A" handshapes, both palms down, drop slightly*</p>	<p>able to</p> <p>worthy of being</p> <p>capable of being</p> <p>having qualities of</p> <p>tending or inclined to (adjectives)</p>	<p>readable</p> <p>lovable</p> <p>drinkable</p> <p>workable</p> <p>teachable</p> <p>educable</p> <p>cleanable</p> <p>destructible</p> <p>reducible</p> <p>divisible</p> <p>reversible</p> <p>changeable</p>

 <p>-AGE</p> <p>Side of "G" handshape "slides down left fingers and palm"*</p>	<p>pertaining to</p> <p>that which belongs or relates to the act of: (amount of) (cost of) (place of)</p> <p>that which belongs or relates to the state or condition of: (collection of) (place for) (nouns)</p>	<p>marriage</p> <p>coverage</p> <p>postage</p> <p>parentage</p> <p>breakage</p>

NOTE: The signs for the affixes shown in this section were selected by the teachers and administrators of the Lansing School district. In modified Signed English it is acceptable to fingerspell all of the affixes.

SIGNS

DEFINITIONS

WORDS



like, suitable for
(adjectives)

judgmental
ceremonial
educational
theatrical

the act or process of
(nouns)

dismissal

-AL

"Palm-out 'L' handshape
at end of preceding sign"



Adjectives meaning -ing

defiant

person or thing that -s
(nouns)

dependent
defendant
absorbent

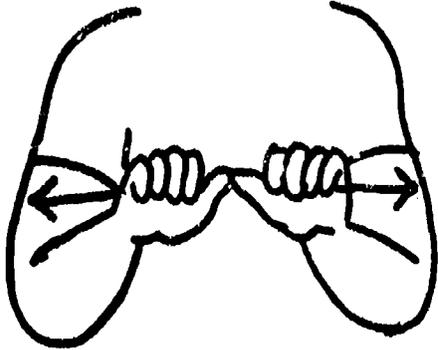
-ANT, -ENT

"Side of 'T' handshape slides
down left fingers and palm"

SIGNS

DEFINITIONS

WORDS



ANTI-

"A" handshape, "thumbs touch; separate hands"*

-ATE

Fingerspell: A-T-E

against, hostile to
opposite of
opposed
in opposition to
rival
opposite to
reverse of
not
un
placed opposite
moving in reverse
direction

corrective
preventative
curative

to become

to cause to become

to form or produce

to provide or treat with

to put in the form, or form

by means of

to arrange for

to combine, infuse or
treat with

of or characteristic of

having or filled with

equivalent to the past
participle ending -ed
(adjectives, verbs)

an office, function, agent,
official, or group of officials

a person or thing that is
the object of (an action)
(nouns)

antilabor
antireligion
antisocial
anticlimax

antibody

maturate

invalidate

salivate

refrigerate

triangulate

substantiate

orchestrate

medicate

collegiate

passionate

determinate

directorate

legate

SIGNS

DEFINITIONS

WORDS



DIS-**

away, apart

deprive of, expel from

cause to be the opposite of

fail, cease, refuse to, or
do the opposite of
(verbs)

not, un-, the opposite of
(adjectives)

opposite of, lack of
(nouns)

disbar

disable

dissatisfy
disjoin
disallow
disintegrate

dishonest
displeasing

disunion

-DOM

Fingerspell: D-O-M

the rank of, position of,
domain of, dominion of

the fact of being, state
of being

a total of all who are
(nouns)

kingdom

wisdom

officialdom



PAST TENSE

regular/irregular verbs
back of hand flips back
toward shoulder*

forms the past tense or
past participle of weak verbs

forms participle adjectives

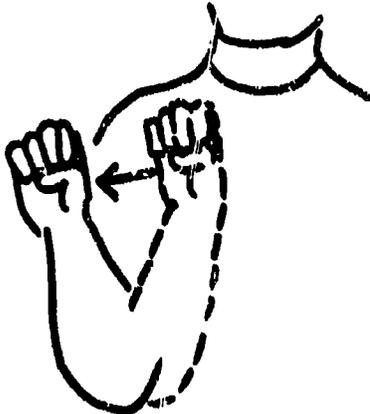
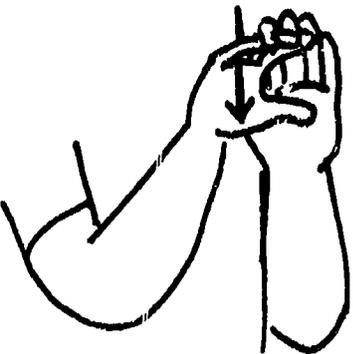
indicating a condition or
quality resulting from the
action of a verb

forms adjectives from nouns

waited
had crossed

inflated

bearded
swam
began
became

SIGNS	DEFINITIONS	WORDS
 <p>-EE</p> <p>"Move 'E' handshape slightly to the right"*</p>	<p>one who is the object of a specified action, or undergoes, or receives something</p> <p>person in specified condition</p> <p>person or thing associated in some way with another (nouns)</p>	<p>appointee</p> <p>employee absentee</p>
 <p>-EN</p> <p>"For regular past participle (-en) add 'N' at completion of sign"*</p>	<p>to become or cause to be</p> <p>to come to have, cause to have</p> <p>made of</p> <p>to form the past participle (nouns, verbs, adjectives)</p>	<p>lighten darken</p> <p>weaken strengthen</p> <p>wooden</p> <p>written risen harden soften</p>
 <p>-ENCE, -ANCE</p> <p>"Side of 'C' handshape slides down left fingers and palm"*</p>	<p>ence: act, fact, quality, state, result, or degree (nouns)</p> <p>corresponding to the suffix -ent for adjectives</p> <p>ance: the quality or state of being</p>	<p>dependence</p> <p>resemblance avoidance appearance observance</p>

SIGNS	DEFINITIONS	WORDS
	<p>er, ar, or: denoting persons concerned or connected with something (nouns)</p>	villager
<p>agent (person): (sign made near the body)**</p>	<p>person living in (certain place)</p>	Southerner
<p>comparative; -er**</p>	<p>a person that (verbs, nouns)</p>	<p>baker teacher educator beggar liar</p>
<p>superlative: -est**</p>	<p>er: to form the comparative degree (adjectives, adverbs)</p>	<p>harder smaller faster slower</p>
<p>-ERY, -ORY, -ARY</p> <p>"Palm-out Also fingerspell R-Y"*</p>	<p>superlative degree of most adjectives and adverbs of 1 or 2 syllables</p>	<p>fastest greatest smallest surest sleepiest busiest tallest</p>
<p>-ery: denoting occupation, business, calling or condition, place or establishment, goods or products, things collectively, qualities, actions. etc. (nouns)</p>	<p>bakery robbery jewelery slavery fishery foolery trickery</p>	
<p>-ory: having the function or effect of a place or thing for (nouns)</p>	<p>advisory sensory observatory</p>	
<p>-ary: pertaining to connected with person connected with or engaged in (something) indicate a location or repository (nouns, adjectives)</p>	<p>voluntary functionary</p>	

SIGNS

DEFINITIONS

WORDS



-ESE

"'E' handshape moves down in a wavy motion"*

referring to locality, nationality, language, literary style, etc. (not adjectives)

motherese
Japanese

-FOLD

Fingerspell: F-O-L-D

having (a specified number of) threefold parts; (a specified number of) tenfold times as many, as much, as large



FORE-

"Bent right hand behind bent left; right moves back"*

before (in space, time, condition)

front

foresee
forenoon
foretold
foreclose

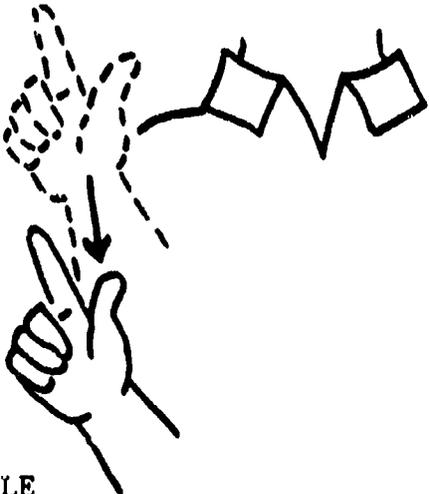
forefront
foreman

SIGNS	DEFINITIONS	WORDS
 <p data-bbox="248 611 324 643">-FUL</p> <p data-bbox="243 684 672 799">"Palm-down hand brushes inward across top of left 'S'" handshape*</p> <p data-bbox="243 835 672 872">Also fingerspell: F-U-L</p>	<p data-bbox="860 294 1278 367">full of, characterized by, having;</p> <p data-bbox="860 555 1278 591">having the qualities of</p> <p data-bbox="860 628 1278 701">having the ability or tendency to, apt to</p> <p data-bbox="860 738 1278 847">the quantity that fills or would fill (nouns)</p>	<p data-bbox="1425 306 1614 489">thoughtful joyful painful prayerful tasteful</p> <p data-bbox="1425 567 1614 604">successful;</p> <p data-bbox="1425 640 1614 713">helpful forgetful</p> <p data-bbox="1425 750 1614 859">spoonful handful roomful</p>

<p data-bbox="243 1018 331 1054">-HERD</p> <p data-bbox="243 1103 613 1140">Fingerspell: H-E-R-D</p>	<p data-bbox="860 1001 1125 1115">herdsman for an animal (nouns)</p>	<p data-bbox="1425 1018 1548 1054">cowherd</p>

<p data-bbox="243 1359 331 1395">-HOOD</p> <p data-bbox="243 1444 613 1481">Fingerspell: H-O-O-D</p>	<p data-bbox="860 1269 1301 1305">state, quality, condition</p> <p data-bbox="860 1415 1301 1529">the whole group of (a specified class, profession, etc.)</p>	<p data-bbox="1425 1281 1601 1390">widowhood motherhood childhood</p> <p data-bbox="1425 1427 1601 1505">priesthood personhood</p>

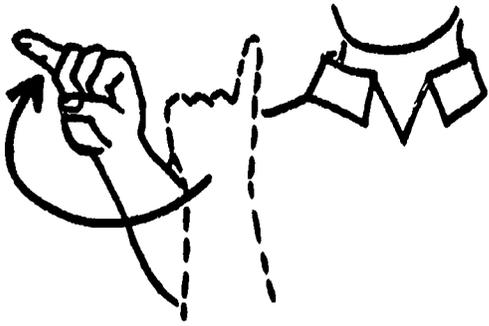
 <p data-bbox="243 1968 287 2004">-IC</p> <p data-bbox="243 2041 684 2090">"Palm-out 'C'" handshape*</p>	<p data-bbox="860 1639 1301 1675">of, having to do with</p> <p data-bbox="860 1834 1301 1907">like, having the nature of, characteristic of</p> <p data-bbox="860 1943 1301 1980">produced by, caused by</p> <p data-bbox="860 2017 1301 2126">made up of, consisting of, containing (adjectives)</p>	<p data-bbox="1425 1663 1628 1809">geographic historic poetic photographic</p> <p data-bbox="1425 1846 1628 1919">alcoholic angelic</p> <p data-bbox="1425 2029 1628 2065">metallic</p>

SIGNS	DEFINITIONS	WORDS
-ICE Fingerspell I-C-E	condition, state or quality of to mark nouns having feminine agents	service
-IFY Fingerspell: I-F-Y	to do, make, shape (verbs) the state or result of an action or process (nouns)	solidify classify testify glorify intensify
 IL-, IM-, IR-, IN-**	in, into, within, on, toward no, not, without, non-	invaluable illiterate irresponsible impossible irregular imbalance immature
 -ILE " 'L' handshape drops straight down"*	expressing capability, susceptibility, liability, aptitude, etc. (adjectives)	infantile percentile contractile

SIGNS

DEFINITIONS

WORDS



-ING

"Palm-in, 'I' handshape twists in slight downward arc to right, ending palm-out"*

forms the present participle of (verbs)

pertaining to or resembling (adjectives)

the act or instance of (a specified verb)

something produced by the action of (a specified verb)

something that does the action of (a specified verb)

material used for (a specified thing) (nouns)

sailing
hearing

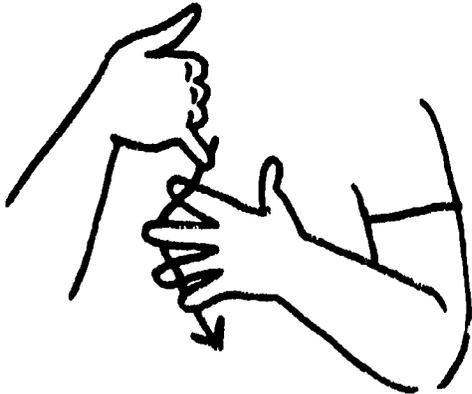
drinking
printing

sleeping
talking
dancing

painting
building

covering
roofing

carpeting



INTER-

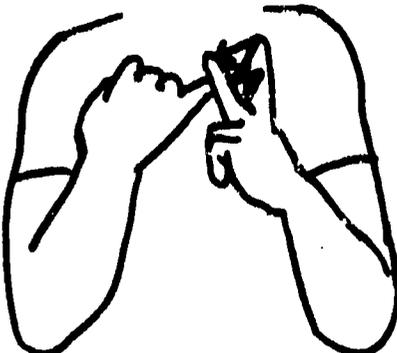
"Little finger of 'I' handshape weaves among fingers of left hand"*

between
among
in the midst of
mutually
reciprocally
together
during
used in the formation of compound words

intermix
interchange
interdepend
interconnect
intermarry
interlock

SIGNS	DEFINITIONS	WORDS
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INTRA-



"Little finger of 'I' handshape bounces between fingers of left hand"*

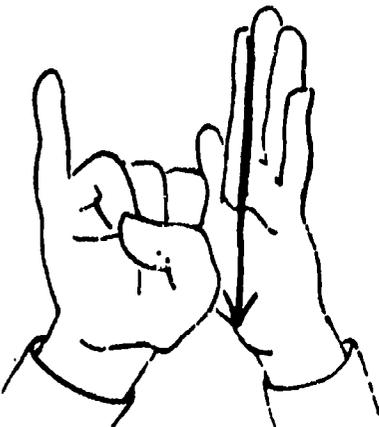
Also fingerspell: I-N-T-R-A

within

used in forming compound words

intradepartmental

-ION, -TION, -SION



Side of "I" handshape slides down fingers and palm of the hand***

act; quality, condition of, or result of

the state of being

the thing that is

relation
correction
translation
discussion
confusion

starvation
elation

creation

-ISH



"'I' handshape points forward and draws a wavy downward line"*

of or belonging to

characteristic of or like, typical of

inclined or tending

somewhat rather

approximately, about
addicted to
(adjectives)

girlish
boyish
childish

bookish

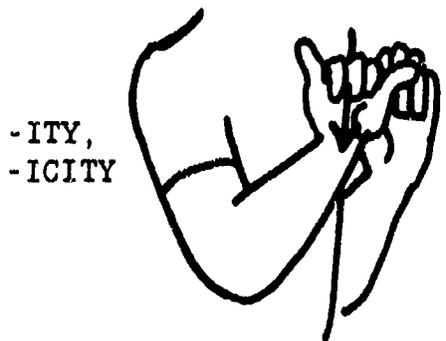
bluish
reddish

sixish
threeish

SIGNS	DEFINITIONS	WORDS
	act, practice or result of	terrorism journalism
-ISM	condition of being	pauperism
Fingerspell: I-S-M	action conduct or qualities characteristic of	patriotism industrialism
	devotion to	nationalism
	abnormal condition caused by	alcoholism
	instance, example or peculiarity of (nouns)	witticism

	one skilled in or occupied with; an expert	violinist pianist
-IST	an adherent of, believer in (nouns)	Buddhist moralist
Fingerspell: I-S-T		

	a native, inhabitant, or citizen of; a descendent from or offspring of	Israelite
-ITE	an adherent of, believer in, or member of (nouns)	unionite socialite
Fingerspell: I-T-E		
	used variously to form adjectives, verbs, and nouns	



-ITY,
-ICITY

state, character, or condition

electricity

"Thumbtip of 'Y' handshape slides down left fingers and palm"*

SIGNS	DEFINITIONS	WORDS
 <p data-bbox="201 531 282 570">-IVE</p> <p data-bbox="201 609 749 682">"Palm-out 'V' handshape shakes downward"*</p>	<p data-bbox="807 282 1261 472">of, or relating to, belonging to, having the nature of, or quality of, tending to, given to (adjectives)</p>	<p data-bbox="1372 297 1559 448">corrective educative preventive supportive</p>

<p data-bbox="201 901 273 940">-IZE</p> <p data-bbox="201 974 525 1013">Fingerspell: I-Z-E</p>	<p data-bbox="807 767 1261 847">to cause to be or become; conform with or resemble</p>	<p data-bbox="1372 781 1605 962">materialize Americanize democratize industrialize dramatize</p>
<p data-bbox="201 1035 749 1364"></p>	<p data-bbox="807 1035 1261 1096">to become like, or change into</p>	<p data-bbox="1372 1042 1552 1108">crystalize civilize</p>
<p data-bbox="201 1144 749 1364"></p>	<p data-bbox="807 1144 1261 1291">to engage in; act toward or upon in a specified way some line of action, practice or policy</p>	<p data-bbox="1372 1157 1525 1222">theorize economize</p>
<p data-bbox="807 1327 917 1366">(verbs)</p>	-----	
<p data-bbox="201 1619 282 1658">-LESS</p> <p data-bbox="201 1693 555 1731">Fingerspell: L-E-S-S</p>	<p data-bbox="807 1473 1261 1522">without, lacking</p>	<p data-bbox="1372 1488 1525 1639">timeless homeless childless priceless</p>
<p data-bbox="201 1668 749 1851"></p>	<p data-bbox="807 1668 1261 1705">that does not</p>	<p data-bbox="1372 1675 1508 1712">tireless</p>
<p data-bbox="201 1741 749 1851"></p>	<p data-bbox="807 1741 1261 1778">that cannot be</p>	<p data-bbox="1372 1756 1525 1792">countless</p>
<p data-bbox="807 1814 1005 1853">(adjectives)</p>		

SIGNS

DEFINITIONS

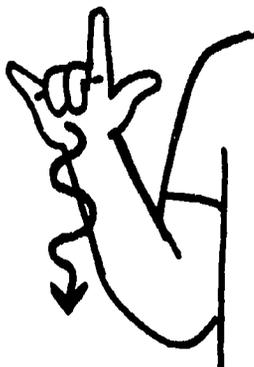
WORDS



like, characteristic of
suitable for, similar to

school-like
animal-like
homelike

(adjectives)



like, characteristic of,
suitable to

motherly
manly

happening (once every
specified period of time)
(adjectives)

yearly
hourly

in (a specified) manner

cheaply
softly
quietly
loudly
tiredly

"Palm-out, simultaneous
'I-L' handshape snakes
downward"*

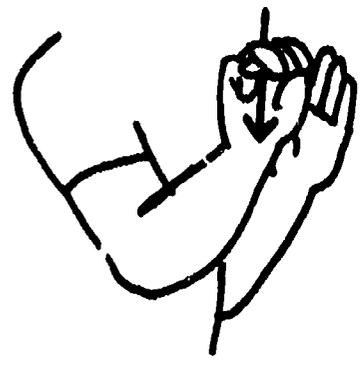
to (a specified) extent or
direction, in or at (a
specified) time or place

in the (specified) order
or sequence
(adverbs)

thirdly
secondly

Also, fingerspell: L-Y

SIGNS	DEFINITIONS	WORDS
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-MENT

"Side of 'M' handshape slides down left fingers and palm"*

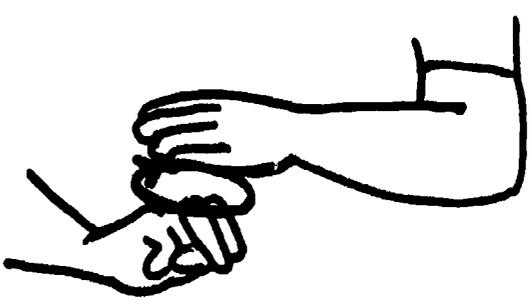
a result or product of improving	improvement
a means, agency or instrument for improving	
the art, fact, process or art of improving	measurement movement.
the state, condition, facts or degree of being improved	development
(nouns)	



MIS-

Twist "Y" handshape on chin*

wrong, wrongly, bad badly	misbehave misinterpret misprint misinform
no, not	mistrust misfit



-NEATH

"N circles below left palm"*

below under	underneath
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SIGNS

DEFINITIONS

WORDS

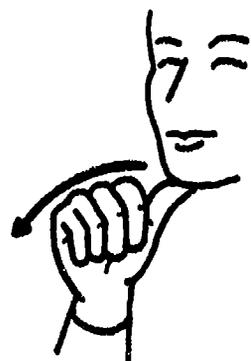


condition, quality, or state of being; a single instance of such a condition, quality or state

happiness
weakness
greatness
togetherness
emptiness
sadness

-NESS

"Side of 'N' handshape slides down left fingers and palm"*



not (gives a negative force and is less emphatic than in- and un-)

nonbeliever
nonbreakable
nondrinker
nonmember
nonspeaking

NON-**

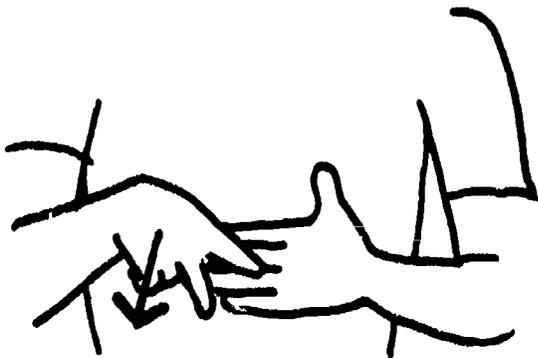
full of abounding in given to; characterized by having; like (adjectives)

dangerous
continuous
joyous
glorious

-OUS

Fingerspell: O-U-S

SIGNS	DEFINITIONS	WORDS
OVER-	above in position, outer upper, superior	overhead overhand oversee
Fingerspell: O-V-E-R	passing across or beyond	overdue overshoot overrun overlook
	denoting a movement downward from above	overflow
	excessive, too much, beyond the normal	overeat oversleep overdress



POST-

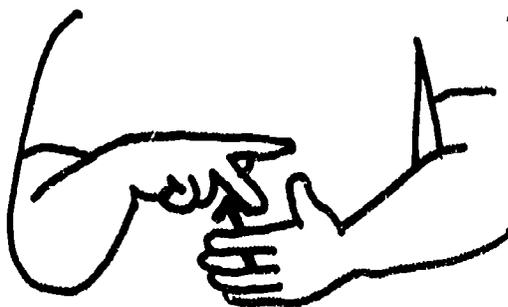
"P" handshape moves back of left hand straight forward*

behind, later than, following, in time

postgraduate
postwar
postgame

subsequent to, posterior to

used freely in the formation of compound words



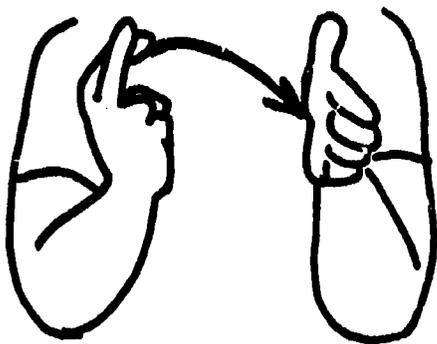
PRE-

"P" handshape moves inward from left palm**

before, earlier than, or prior to, in advance of, preliminary to, in preparation for

pregame
preschool
prewar
preheat

SIGNS	DEFINITIONS	WORDS
PRO-	substituting for	pronoun
Fingerspell: P-R-O	defending, supporting favor for some party system or idea etc. having anti- as its opposite	prolabor pro-American prosocial



RE-

"'R' handshape hit left palm"*

Also fingerspell: R-E

again, anew, or again
and again to indicate
repetition

recharge
retype
reintroduce
reinvent
refreeze
rebuild
reappear
repay

back, backward to indicate
withdrawl or backward motion

recall



-S

"Palm-out 'S' handshape*

inflectional ending used to
make plurals of most nouns

socks
pencils

inflectional ending used to
form the third-person
singular of verbs in the
present tense

walks
shows

suffix used to form some
adverbs

needs

SIGNS	DEFINITIONS	WORDS
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-SHIP***

the quality, condition or state of

friendship

the rank or office of, a person having the rank or status of

kingship
lordship

all individuals (of a specified class) collectively

readership



-SOME, SOME-

used in forming compound words meaning 'a certain'

somebody
something

like, apt, tending to be

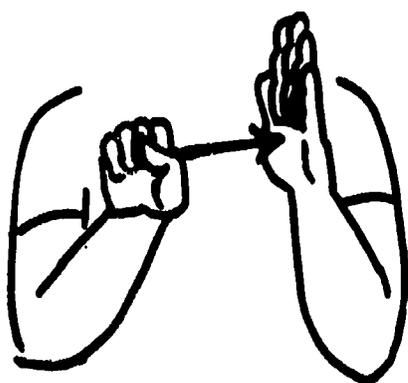
fearsome
tiresome

(a specified) number

thresome
foursome

"Side of right hand draws small arc across left palm"*

Also fingerspell: S-O-M-E (especially when in final position)



-STEAD

a location, place, or locality (nouns)

farmstead
homestead

"Side of 'S' handshape hits heel of left hand"*

SIGNS	DEFINITIONS	WORDS
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SUB-
 "'S' handshape circles under palm"*

Also fingerspell: S-U-B

under, beneath, below

subconscious
 subsoil

lower in rank or position than, inferior or subordinate to

subcommittee
 subplot

to a lesser degree than, somewhat, slightly

subcolumnar

so as to form a division into smaller or less important parts

subtitle
 subgroup
 subdivide

SUPER-

Fingerspell: S-U-P-E-R

over, above, on top of

superstructure

higher in rank or position than, superior to, greater in quality, amount, or degree than, surpassing; greater than others of its kind

superpower
 supernatural
 supercycle
 superman

extra, additional

superimpose
 supercharge

-TH

Fingerspell: T-H

the act of; the state or quality of being or having

wealth
 stealth
 width
 warmth

used in forming ordinal numbers

fifth
 eightieth

UN-**



not, lack of, opposite of

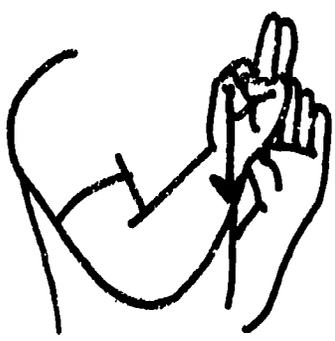
uncooked
 undefeated
 unhappy
 unlike

back, the reverse or removal of

unchain
 untie
 undress

(nouns, verbs)

SIGNS	DEFINITIONS	WORDS
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-URE

"Side of 'U' handshape slides down left fingers and palm"*

act or result of an action
agent, or instrument of
action, state of being

(nouns)

exposure
procedure

VICE-

Fingerspell: V-I-C-E

one who acts in the place
of; deputy

vice president

-WARD

Fingerspell: W-A-R-D

in a specified direction
or course; indicating
spatial or temporal
direction

northward
afterward
seaward
backward



-Y

"Palm-out 'Y' " handshape*

having, full of,
characterized by

rather, somewhat

inclined, tending to

suggestive of, somewhat like
(adjectives)

quality or condition of
being
(nouns)

dirty
greasy
sleepy
healthy

orangey
yellowy

sticky

jealousy

Appendix D
CONTRACTIONS

NOTE: All illustrations in Appendix D are used with permission from Modern Signs Press, Inc., P. O. Box 1181, Los Alamitos, CA 9720 and are taken from G. Gustason, D. Pfetzing, & E. Zawolkow (illustrated by C. Norris). (1980). Signing Exact English.

Appendix D

CONTRACTIONS

SIGNS

DEFINITIONS

WORDS



contraction of had
contraction of did
contraction of should
or would

they'd
where'd
he'd

'D

Palm-out D twists inward

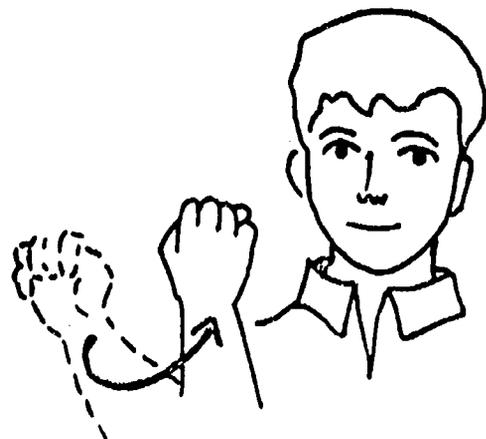


contraction of will
informal contraction
of till

what'll
wa'll
I'll

'LL

Palm-out L twists inward



contraction of am
informal contraction
of him

I'm
show'm

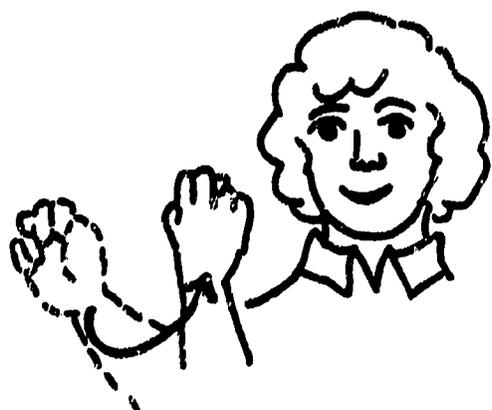
'M

Palm-out M twists inward

SIGNS

DEFINITIONS

WORDS



adverbial combining form
of not

haven't
isn't

N'T

Palm-out N twists inward



contraction of are

how're
you're
they're

'RE

Palm-out R twists inward



contraction of is

he's

contraction of has

she's

informal contraction of
does

what's

contraction of us

let's

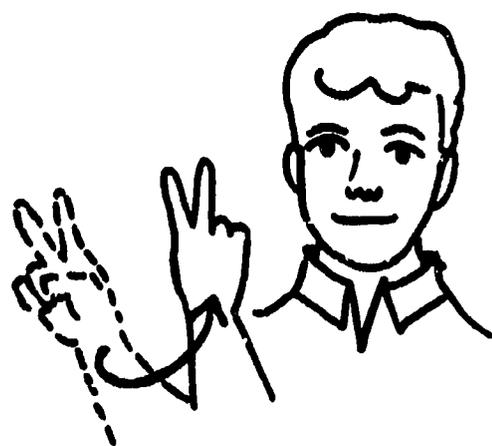
'S

Palm-out S twists inward

SIGNS

DEFINITIONS

WORDS



contraction of have

I've
we've
they've
you've

'VE

Palm-out V twists inward

Appendix E

RESOURCES

Appendix E

RESOURCES

Anthony, D. (Ed.). (1971). Seeing Essential English/Manual. Anaheim, CA: Anaheim Union High School District.

One of the first books published about manually coded English. It contains illustrated vocabulary words used in Seeing Essential English.

Baker, C., & Cokely, D. (1980). American Sign Language: A Teacher's Resource Text on Grammar and Culture. Silver Spring, MD: T.J. Publishers.

This is a textbook designed for teachers and students of American Sign Language. It has 14 chapters, some of which talk about languages and/or the deaf Community. The remaining chapters cover structural features of ASL: Selected Sign Types, Sentence Types, Time, Pronominalization, Subjects and Objects, Classifiers, Locatives, Pluralization, Temporal Aspect, and Distributional Aspect. There is also an introduction and a section of transcription symbols used in the text.

Battison, R. (1978). Lexical Borrowing in American Sign Language. Silver Spring, MD: Linstok.

This book explains the linguistics of American Sign Language with respect to fingerspelling and is intended for use by linguists, educators, and sign language instructors. There are some illustrations which help to explain or provide examples for the related text. The book is divided into the following five chapters: Analyzing Signs, Signs in Action, Social Issues, Loan Signs From Fingerspelled Words, and Analysis and Discussion. Also included are a list of figures and tables used in the text as well as two appendices: illustrations of handshapes cited in the text, and a table of symbols.

Bornstein, H., & Saulnier, K. (1984). The Signed English Starter. Washington, DC: Gallaudet University Press.

This book illustrates basic, functional vocabulary in Signed English and is divided into chapters according to the following general categories: People and Pronouns; Things; Special Verbs and Function Words; The Body; Actions-1; Actions-2; Leisure Time; Nature and Animals; Descriptions; Food; Travel; Time, Money, Shapes, and Adverbs. Each chapter discusses unique features of an English manual sign system, followed by vocabulary and practice sentences. Other sections included in this book are: Sign Markers, American Manual Alphabet, Name Signs, Numbers, Keys to Word Descriptions and Arrows used in the text, and a Glossary of terms. It is designed to be used as a tool for teachers, parents, children, and students who are learning Signed English.

Bornstein, H., Saulnier, K., & Hamilton, L. (1983). The Comprehensive Signed English Dictionary. Washington, DC: Gallaudet University Press.

This is an extensive Signed English dictionary containing over 3,100 illustrated words designed to fulfill the language needs of students from preschool through high school and beyond. This book is divided into two sections. The first section, the Elements of Signed English, contains the following: Introduction to Signed English, Sign Markers, The American Manual Alphabet, Numbers, Contractions, Compounds, Key to Word Descriptions and Arrows. The second section, The Signs of Signed English, alphabetically lists all of the 3,100 sign words. Following the words are three appendices explaining: why and how the Signed English series developed, name signs, and models for the visual representation of speech.

Doughten, S., Minkin, M., & Rosen, L. (1978). Signs for Sexuality. Seattle, WA: Planned Parenthood.

This is an American Sign Language resource manual designed for use by hearing and deaf people who are concerned with deafness and human equality. It contains illustrated signs of commonly used words in a general vocabulary. The words are alphabetically listed in dictionary format with English terms and definitions. Also included in this manual are the following sections: Introduction; Research, Methodology, and Format; and three Appendices--one each on Illustrations of Male and Female Reproductive Systems, Cross-References, and a Bibliography of Additional Resources including books, articles, curriculums, education materials and national organizations.

Gustason, G. (1983). Teaching and Learning Signing Exact English. Los Alamitos, CA: Modern Signs.

This is a book filled with ideas, activities, and beginning curricula for instructors to use when teaching Signing Exact English classes. It is a resource manual for instructors, rather than an illustrated textbook for students. The manual is divided into five parts: Background; Ideas, Rules, Activities; Sample Curricula; Word Groups by Topics; and Sign Families and Practice Sentences. The contents in this manual can be used by a number of teachers in a variety of situations, including classes for adults, classes for training teachers, and classes for children.

Gustason, G., Pfetzing, D., & Zawolkow, E. (1980). Signing Exact English. Rossmore, CA: Modern Signs.

This is an illustrated Signing Exact English vocabulary book that can be used by hearing and deaf individuals. Many signs included are borrowed from American Sign Language while others are unique to the SEE signing system. Each word is listed alphabetically with notes explaining the accompanying illustration. Other sections in this text are Introduction, Explanation of the Text, Pledge of Allegiance, Creative Signing, Alphabet, Hand Shapes, Numbers, Contractions, Affixes, and a list of Signs Grouped by Families.

Hoemann, H. (1986). Introduction to American Sign Language. Bowling Green, OH: Bowling Green Press.

This book was designed to help students understand American Sign Language structural features and is divided into eight chapters. The first chapter generally covers American Sign Language, which is related in subsequent chapters specifically to usage of sentences, nouns, pronouns, verbs, adverbs, and adjectives. The last chapter talks about deafness and American Sign Language. There are some illustrations in each chapter that help explain the related text.

Hoffman, C. (1988). Comprehensive Reference Manual for Signers and Interpreters. Springfield, IL: Charles C. Thomas.

This book was written for experienced or serious signers/interpreters and contains over 7,000 entries, some of which include vocabulary, idioms, cross references, and sign descriptions. There are no illustrations, instead, the manual alphabetically lists each word with its signing description. Prior to the listing is an extensive key explaining all of the abbreviations used in the text.

Humphries, T., Padden, C., & O'Rourke, T. (1980). A Basic Course in American Sign Language. Silver Spring, MD: T.J. Publishers.

This is a textbook designed for students who are learning American Sign Language. Each of the 22 lessons covers basic language structures with explanations, examples, and illustrations. There are also exercises in each lesson to provide students with practice in using the language structures learned. Following each lesson are some illustrated vocabulary words that were used in that particular lesson. This book also contains seven dialogues containing language structures learned in previous lessons. Finally, at the end of this book are short sections on the manual alphabet and numbers. It also provides an answer key to the exercises given in each lesson.

Jamison, S. (1983). Signs for Computing Terminology. Silver Spring, MD: National Association of the Deaf.

This resource manual contains an illustrated listing of computer-related terms heavily emphasizing those associated with computer programming and systems analysis. For each entry, there is a statement explaining its usage, as well as possible additional information to relate the sign to other words not listed in the text or to clarify the drawing. Also included in this manual are the following sections: Introduction, Fingerspelling, American Manual Alphabet, Prefixes and Suffixes, and an Appendix with Additional Vocabulary. It is designed to be used for deaf students and deaf employees preparing for or working in a computing field, teachers and instructors, interpreters, and managers or coworkers of deaf employees.

Riekehof, L. (1980). The Joy of Signing. Springfield, MO: Gospel Publishing House.

This book contains signs used in American Sign Language and can be used as a reference manual by anyone wanting to communicate with deaf people. The words are divided into 25 categories and for each word there is an accompanying illustration and explanation as well as a note on the origin and usage of the word. Other sections in this book are Introduction, History of Sign Language and Fingerspelling, Terminology, the Art of Signing, the Language Patterns of Signs, Fingerspelling, Manual Alphabet Chart, and Organizations Serving the Deaf.

Shroyer, E. (1982). Signs of the Times. Washington, DC: Gallaudet University Press.

This is a classroom textbook designed for use with hearing students who are learning sign language. It emphasizes understanding of and becoming skilled in Pidgin Sign English and Manually Coded English. This text consists of 41 lessons, each of which illustrates vocabulary words, lists practice sentences, gives mnemonics to aid in remembering the signs, and lists the vocabulary used in each particular lesson. Other sections in this text are Introduction, Notes for the Reader, Suggested Reading, Fingerspelling and Numbers, Special Notes on inflections and adapted signs, and a Multi-sign Word Appendix.

Shroyer, E., & Shroyer, S. (1984). Signs Across America. Washington, DC: Gallaudet University Press.

This book contains 130 alphabetically listed words whose concepts are each represented by at least three different signs. The concepts are signed in American Sign Language and represent 25 of the 50 U.S. states. The authors note that signs not only vary from state to state but also within each state; therefore, the signs given are the general signs used in each state. This book also has a preface, introduction, and a format section. Its intended use is mainly for fun by any group or individual who has any interest in sign language: students, interpreters, teachers, deaf persons, researchers, and linguists.

Smith, C., Lentz, E., & Mikos, K. (1988). Signing Naturally. Berkeley, CA: Dawn Sign Press.

This curriculum guide uses a functional-notional approach to teaching American Sign Language. That is, it incorporates examples from everyday interactions in the teaching and learning of ASL. The goal of the guide is to make students comfortable in conversing in a variety of situations within the deaf community. At present, only the first of four language levels is available. Level 1 is organized around 12 instructional units and includes a teacher's curriculum guide, a student workbook, a student videotext, and a teacher's cumulative review videotape. Its intended audience is anyone desiring to learn ASL.

Sternberg, M. (1981). American Sign Language Dictionary. New York: Harper & Row.

This dictionary contains 3,300 words illustrated in American Sign Language and alphabetically listed. Its format is consistent with standard dictionaries in that it lists entry titles, pronunciation, parts of speech, rationale description, and cross references with other entries. Also included is a key to abbreviations used in the book, a pronunciation guide, explanatory notes, and the American Manual Alphabet. It is an excellent language training tool for deaf readers with language problems as well as for hearing readers learning sign language.

The Statewide Project for the Deaf. (1978). Preferred Signs for Instructional Purposes. Austin, TX: Texas Education Agency.

This book was developed for deaf schools in Texas and is intended for instructional use. It contains illustrated words that are grouped categorically into 41 sections. Along with the English words equivalent to each sign, the text also includes the Spanish word or words. There are no practice sentences or exercises included. It is strictly a vocabulary sign language book. Before the sections begin, there are a few pages explaining how the text is organized and how the illustrations are used.

Woodward, J. (1980). Signs of Drug Use. Silver Spring, MD: T.J. Publishers.

This is an illustrated resource book containing vocabulary in American Sign Language related to drugs and alcohol. It was written for use by interpreters and others who may need to know drug-related signs for instances such as court trials and counseling. This book is divided into chapters according to the following general categories: Alcohol Use and Effects, Caffeine-Related Drugs, Drugs Usually in Pill Form, General Drug Effects, Marijuana Use and Affects, Tobacco Use, and Other Signs. Other sections are an introduction and a fingerspelled vocabulary.