<table>
<thead>
<tr>
<th>CONTENTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>7</td>
</tr>
<tr>
<td>Language and Literacy</td>
<td>9</td>
</tr>
<tr>
<td>Teaching and Learning</td>
<td>21</td>
</tr>
<tr>
<td>Sociocultural Influences</td>
<td>31</td>
</tr>
<tr>
<td>Career Development</td>
<td>35</td>
</tr>
<tr>
<td>Technology Integration</td>
<td>37</td>
</tr>
<tr>
<td>Teacher and Interpreter Education</td>
<td>43</td>
</tr>
<tr>
<td>Aging and Deafness</td>
<td>49</td>
</tr>
<tr>
<td>Available for Purchase</td>
<td>53</td>
</tr>
<tr>
<td>NTID Author Index</td>
<td>67</td>
</tr>
</tbody>
</table>

Ordering information:
To request individual papers in any of the sections, please include the full citation and the AN number found in brackets at the end of the citation. Contact the Department of Educational Design Resources through email (edrequest@rit.edu), or mail your request to:

Jonathan Millis
Department of Educational Design Resources
National Technical Institute for the Deaf
52 Lomb Memorial Drive
Rochester, NY 14623

Please note that books, pamphlets, and electronic media listed in Available for Purchase are available directly from the vendors listed. Contact these vendors for ordering information. Also, please include your complete mailing address.

Production Information
Editors: Jonathan Millis, Marsha Young
Graphic Designer: Alan Cutcliffe
Dear Colleagues,

I am pleased to invite you as researchers, practitioners, parents, and other interested readers to peruse the summaries of recent research and descriptions of instructional materials produced by faculty and staff at NTID.

NTID provides a first-class college education for deaf and hard-of-hearing students who live and study in a community of deaf and hearing students, faculty and staff at a premier technical university. NTID also serves our mission and the broader field through researching important issues regarding the education and career development of individuals who are deaf and hard of hearing.

We welcome your comments, suggestions, and ideas for further research in areas related to those contained in this volume and in particular to issues of student transition to and success in postsecondary education and the world of work. You may send your feedback to the Department of Research via its website: http://www.rit.edu/ntidresearch.

Sincerely,

Alan Hurwitz

Dear Colleagues;

The summaries of NTID research in this edition are organized according to the five main areas of research activity at the Institute: Language and Literacy, Teaching and Learning, Sociocultural Influences, Career Development, and Technology Integration.

On behalf of all those who conduct research at NTID, I invite you to consider these summaries in light of your own experience and to contact us with suggestions or comments.

Sincerely,

John A Albertini

For deaf students, learning a language often occurs in parallel with learning the functions and the conventions of writing. If writing, like language, is best learned through social interaction, then the teacher needs to consider how best to promote interaction through the choice of language, modality, and method of instruction. Research indicates a relationship between proficiency in a sign language and writing skills.


This introductory article introduces the current advances in literacy research and practice of deaf educators and researchers in the field of deaf education.


In this essay, the learning, teaching, and testing of writing are considered from the points of view of dialogue, ownership, and voice. It is argued that writing may be taught as a dialogic process, and that such an approach will encourage the emergence of the writer's voice and enhance the writer's ownership of process and product. The implications of such an approach for teaching and assessing deaf students is discussed.


We analyzed informal writing samples related to hands-on activities in science class. Our suggestions that teachers use informal writing and hands-on activities, is based on the assumption that learning science is a social and culturally situated activity. According to this view, children learn science by adopting the language patterns of competent users. They explore and find multiple ways of completing a task by working with experts and, given meaningful and engaging contexts, they construct new understandings of science phenomena and gradually incorporated the language patterns of science in their own discourse.


Several conclusions may be drawn from recent studies in the teaching and assessment of writing with deaf studies. First, aspects of form (that is, grammar) are resistant to change even when deaf students write with purpose and focus on meaning. Grammatical and lexical performance will not improve significantly without direct instruction, and by all accounts, changes in grammatical and lexical performance will occur only over periods of years and in programs where students are encouraged to write frequently and at length. However, programs that encourage students to write from personal experience and in various genres will likely foster the development of discourse organization and fluency. Analyses of organization, content, and effect of genre, revealed similarities in the writing of deaf and hearing students. For deaf students, the use of more familiar genres, those that emphasize communication, self-expression, or imagination, will be beneficial.

* [AN XXXX] represents a local NTID publications designation. Please include when requesting copies of these publications.

This study investigated the preservation of second formant transition acoustic cues to intelligibility in speech produced during simultaneous communication from a locus equation perspective. Results indicated that although longer sentence durations occurred for simultaneous communication, locus equation slopes and intercepts obtained from speech produced during simultaneous communication were virtually identical to those obtained during for speech-alone, indicating no degradation of stop consonant acoustic cues during simultaneous communication.


In this article the author reviews the role of input in language acquisition, comparing input processing by deaf and hearing learners of English. He discusses the “Focus-on-Form” teaching methodology known as “input enhancement” and illustrates his use of a coding system for focusing deaf students’ attention on their production of specific English language formations. This “implicit corrective feedback” serves to enhance the English input available to deaf students. The presenter advocates the use of visual input enhancement with deaf students, especially in view of their reliance on visual processing.


Deaf learners generally experience tremendous difficulty in acquiring spoken languages in contrast to their natural and effortless acquisition of signed language. Without full access to the sounds and intonations of a spoken language, the acquisition process for deaf learners is often labored and unnatural and occurs at a much slower rate than for hearing learners. This paper provides guidelines for teachers of deaf students on classroom methods for assessing and addressing students’ English grammar development.

The reviewer critiques this book on the syntax of American Sign Language (ASL), the visual–gestural language of the Deaf community in the United States and much of Canada. The book provides broad theoretical coverage of ASL syntax, orienting information concerning the sociolinguistic context in which ASL is used, and a discussion of methodological considerations for eliciting and analyzing sign language data. The reviewer challenges some of the theoretical analyses that the authors propose.


This paper describes the "Supporting English Acquisition" (SEA) web site and outlines a collaborative, web-based effort to infuse English teaching principles and methods into technical, math, science, social science, and humanities courses taken by students at the National Technical School for the Deaf (NTID). This broad-based effort involves NTID technical and arts and sciences faculty, as well as peer tutors in the NTID Learning Center.


The SEA Web site (http://www.rit.edu/~seawww) is an online professional development tool for English teachers, content teachers, and other professionals serving deaf and hard-of-hearing students. Its goal is to help educators promote students' English acquisition and literacy development by explaining the challenges that English poses for deaf and hard-of-hearing students, summarizing the characteristics of specific English structures and processes, translating English language research findings into everyday language, and discussing research implications and suggesting applications to the teaching/learning process.


A survey solicited the intuitions of experienced teachers and tutors of English to deaf college students regarding the degree of difficulty deaf students with and without learning disabilities might be expected to have in dealing with 30 specific English language phenomena. Results identified spelling and a variety of discourse, lexical, and grammatical phenomena as potential markers of learning disability in the deaf population.

Graduation patterns were examined for 905 deaf students (1990-1998) at the National Technical Institute for the Deaf. Students with higher reading and language skills had the best overall graduation percentage. Comparison of recipients of different degrees—bachelor of science (BS) versus fine arts (BFA); associate of applied science (AAS) versus occupational studies (AOS)—showed 92% of BS and 82% of AAS graduates reading at the 9th-grade level or above, versus 65% of BFA and 47% of AOS graduates. Interestingly, 80% of non-degree-earning students read at the 9th-12th grade levels; in absolute terms, they outnumbered graduates with similar reading skills in the AAS and BFA programs combined, and in the BS program. This indicates a need for improved counseling, placement, and retention strategies. Students performed similarly across degree categories, regardless of curriculum requirements and difficulty. Only non-degree-earning students had significantly lower grade averages.


Do instructors communicate effectively with their students? Instructors ask this question to guide their professional development and to document their skills for annual performance appraisals, tenure review, and promotion. One way to answer the question is to survey students. A team at NTID is developing a new tool for this purpose.


Eye gaze during simultaneous communication was monitored in adults with normal hearing or early onset deafness. Generally, perceivers looked toward the mouth, regardless of whether signs or speech disambiguated the message. Gazes were shorter for sign-critical items compared to speech-critical items. These results confirm that direct overt attention, as indicated by gaze direction, is not necessary to apprehend critical information from the mouth or the hands during simultaneous communication. In addition, it was found that experienced deaf users of simultaneous communication made more frequent gaze shifts than perceivers who had normal hearing. This finding, together with evidence from other investigators’ studies of brain imaging, supports the hypothesis that “jitter” in the eye gaze of deaf perceivers may enhance activation of brain centers responsible for processing motion.

Limiting ourselves to the study of only one sign language can be dangerous linguistically as well as politically. The study and comparison of sign languages around the world can give us insights into how language is structured, how the channel of communication affects language structure, and what is possible in the signing modality. Data from American Sign Language, NihonSyuwa, and Chinese Sign Language are discussed to illustrate these points.


Thirty years ago, sign language was generally considered as an oddity, a marginalized and messy system of communication with little or no autonomous grammar and little or nothing to teach linguists or linguistics. Over the last generation, sign languages all over the world have been recognized as full-fledged languages with much to teach us about the human capacity for language and the nature of language itself. I hope that NihonSyuwa will also earn its rightful place as one of those languages.


NTID communication policy states that all faculty must demonstrate certain levels of sign language competence in order to achieve tenure and promotion. While it is clear that many faculty can achieve that competence within 6 years, it is not clear that all faculty can do so. Our goal has been to find out what factors are important for success in achieving sign competency. We hope that our findings will contribute to the improved signing competence of our faculty and thereby enhance students' access to information in the NTID environment.


This study extends the findings of Gaustad, Kelly, Payne, and Lylak (2002), which showed that deaf college students and hearing middle school students appeared to have approximately the same morphological knowledge and word segmentation skills. Because the average grade level reading abilities for the two groups of students were also similar, those research findings suggested that deaf students' morphological development was progressing as might be expected relative to reading level. This study further examined the specific relationship between morphologically based word identification skills and reading achievement levels, as well as differences in the error patterns of deaf and hearing readers. Comparison of performance between pairs of deaf college students and hearing middle school students matched for reading achievement level shows significant superiority of younger hearing participants for skills relating especially to the meaning of derivational morphemes and roots, and the segmentation of words containing multiple types of morphemes. Group subtest comparisons and item analysis comparisons of specific morpheme knowledge and word segmentation show clear differences in the morpho-graphic skills of hearing middle school readers over deaf college students, even though they were matched and appear to read at the same grade levels, as measured by standardized tests.

The study examined the ability of deaf and hearing students at the college and middle school levels to discern and apply knowledge of printed word morphology. There were 70 deaf and 58 hearing participants. A two-part paper-and-pencil test of morphological knowledge examined subjects’ ability to (a) perceive segmentation of morphemes within printed words and (b) recognize meanings associated with various printed morphemes. The hearing college students performed best on every dependent measure of the two-part test. The deaf college students scored significantly lower than the hearing college students but similarly to the hearing middle school students. Deaf middle school students consistently scored the lowest on both parts of the test. While all students’ performance declined as the difficulty of the morphemic content increased within both tasks, the decline was greatest among middle school deaf students. Although segmentation and semantic analysis skills necessary to morphographic decoding were apparent in the deaf students, their mastery levels fell significantly below those of the hearing subjects.


Spectral moments, which describe the distribution of frequencies in a spectrum, were used to investigate the preservation of acoustic cues to intelligibility of speech produced during simultaneous communication (SC) in relation to acoustic cues produced when speaking alone. The spectral moment data obtained from speech alone (SA) were comparable to those spectral moment data reported by Jongman, Wayland, and Wong (2000) and Nittrouer (1995). The spectral moments obtained from speech produced during SC were statistically indistinguishable from those obtained during SA, indicating no measurable degradation of obstruent spectral acoustic cues during SC.


This study examines how students construct meaning through writing during authentic science activities. To determine how well students understood science concepts, we analyzed 228 writing samples from deaf students in grades 6 through 11 as well as the explanatory and reflective comments of their factors.


As its title suggests, this chapter is about the metaphorical aspects of sign language and the use of such figurative devices by sign language users. Distinguishing and then integrating these domains requires consideration of three primary areas of investigation, each of which will be described here to only a limited extent—albeit for different reasons.

It is well-established that deaf children begin school lagging in general language skills relative to hearing peers, and that deaf and hearing students differ with regard to literacy and other academic skills. These domains typically are treated separately, by different groups of researchers, with little consideration to common factors that might underlie them. It appears, however, that both of these situations might reflect differences in conceptual and content knowledge, as well as linguistic knowledge, between and among deaf and hearing learners.


This chapter focuses on what it is that children bring to language acquisition and the ways in which the contexts of language learning influence what the child learns and how. The foundations of communication and the emergence of language in deaf children will be seen to reside in and reflect the nexus of early social and cognitive development, with healthy doses of genetic and environmental influence (Akamatsu, Musselman & Zweibel 2000: Marschark & Everhart 1997).


This document is designed to provide educators with an objective synthesis of the current research regarding language development in children who are deaf. Unfortunately, many of the research findings are contradictory or inconclusive, and numerous questions remain unanswered. What is clear from the research is that intervention plans and educational programming decisions should be made based on the needs, capabilities, and circumstances of the individual child. The child who has hearing aids, the child who has cochlear implant and use oral-auditory strategies, and the child with a cochlear implant for whom using sign language in addition to oral-auditory training has been recommended, and the child who uses sign only, will all need different support strategies.


Two experiments explored the taxonomic organization of mental lexicons in deaf and hearing college students. Experiment 1 used a single-word association task to examine relations between categories and their members. Results indicated that both groups' lexical knowledge is similar in terms of overall organization, with associations between category names and exemplars stronger for hearing students; only the deaf students showed asymmetrical exemplar-category relations. Experiment 2 used verbal analogies to explore the application of taxonomic knowledge in an academically relevant task. Significant differences between deaf and hearing students were obtained for six types of analogies, although deaf students who were better readers displayed response patterns more like hearing students'. Hearing students' responses reflected their lexical organization; deaf students' did not. These findings implicate the interaction of word knowledge, world knowledge, and literacy skills, emphasizing the need to adapt instructional methods to student knowledge in educational contexts.

This chapter examines the cognitive functioning of deaf learners and the extent to which any reliable differences between them and hearing peers might explain other observed differences in academic achievement.


This study investigated the effects of noise and filtering on the intelligibility of speech produced during simultaneous communication. Although results indicated longer sentence durations for simultaneous communication, the data showed no difference in the intelligibility of speech produced during simultaneous communication versus speech produced alone, under either noise or filtered listening conditions, nor any difference in pattern of phonetic contrast recognition errors between speech-alone and simultaneous communication.


This study is a direct replication of the study conducted by Sussman, McCaffrey, and Matthews (1991) which sought to confirm findings that locus equation slope and y intercept terms vary systematically as a function of place of articulation. The findings indicated that with the exception of gender differences regarding slope, the results are generally consistent with those of Sussman et al., lending support to the notion that locus equations may serve as a source of relational invariance for stop place categorization.

Samar, V., Parasnis, I., & Berent, G. (2002). Deaf poor readers’ pattern reversal visual evoked potentials suggest magnocellular system deficits: Implications for diagnostic neuroimaging of dyslexia in deaf individuals. Brain and Language, 80, 21-44. [AN 1713]

This article presents the visual evoked response evidence that deaf adult poor readers, compared with deaf adult good readers, have a characteristic pattern of deficient occipital lobe and frontal lobe responses to very low-contrast visual patterns, that implies the presence of hidden dyslexia among deaf poor readers.


The NTID Writing Test was developed to assess the writing ability of postsecondary deaf students entering the National Technical Institute for the Deaf and do determine their appropriate placement into developmental writing courses. While previous research has shown the test to be reliable between multiple test raters and as a valid measure of writing ability for placement into these courses, changes in curriculum and the rater pool necessitated a new look at interrater reliability and concurrent validity. We evaluated the rating scores for 236 samples from students who entered the college during the fall 2001. Using a multiprong approach, we confirmed the interrater reliability and the validity of this direct measure of assessment. The implications of continued use of this and similar tests in light of definitions of validity, local control, and the nature of writing are discussed.

Two educators explore the incorporation of phonics into the American Sign Language and English school for deaf and hard-of-hearing students in New York City.


This study investigated the acoustical and perceptual characteristics of vowels in speech produced during simultaneous communication. Although results indicated longer sentence and vowel durations for simultaneous communication, the data showed no difference in spectral characteristics of vowels produced during simultaneous communication compared with speech-alone, indicating no degradation of the vowel spectrum by rate alteration during simultaneous communication. Further, no difference was found in listeners' ability to identify vowels produced during simultaneous communication, indicating no degradation of vowel perceptual cues during simultaneous communication.


This article reviews experiments completed over the past decade at the National Technical Institute for the Deaf and at the State University of New York at Geneseo concerning speech produced during simultaneous communication and synthesizes the empirical evidence concerning the acoustical and perceptual characteristics of speech in simultaneous communication. Comparisons are drawn between simultaneous communication and other modes of rate-altered speech that have been used successfully to enhance communication effectiveness. Of particular importance are conclusions regarding the appropriateness of speech produced during simultaneous communication for communication between hearing and hearing-impaired speakers and listeners and the appropriateness of simultaneous communication use by parents and teachers for speech development of children with hearing impairment.


The study identified social, educational, and demographic characteristics of deaf postsecondary students who demonstrated strong reading and writing skills. Questionnaire information, information from institutional databases, and in depth personal interviews were used to identify factors and characteristics that positively influenced the attainment of strong academic literacy skills.

This study investigated prosodic variables of syllable stress and intonation contours in contextual speech produced during simultaneous communication. It was found that prosodic rules were not violated in simultaneous communication although the overall rate of speech decreased. These findings are consistent with previous research which indicates that temporal alterations produced by simultaneous communication do not involve violations of other temporal rules of spoken English.


This study investigated the overall intelligibility of speech produced during simultaneous communication. Although results indicated longer sentence durations for simultaneous communication, than for speech-alone, results showed no difference in overall intelligibility of speech produced during simultaneous communication, nor any difference in pattern of phonetic contrast recognition errors. This conclusion is consistent with previous research indicating that temporal alterations produced during simultaneous communication do not produce degradation of temporal or spectral cues in speech or disruption of the perception of specific English phoneme segments.


This study investigates the effect of vowel environment on fricative consonant duration in contextual speech, produced by adults. Results indicated significant effects of vowel context on consonant duration in contextual speech and revealed anticipatory scanning effects that are similar to those seen with nonsense syllables in previous studies.


This paper presents observations and analyses of the expression of negation in Chinese Sign Language (CSL), based on interviews with 15 Chinese Deaf adults in Beijing, China. Findings show that while some aspects of negation in CSL (e.g. nonmanual signals, negative signs, and structures of negative sentences) are similar to those found in other sign languages, CSL displays some unique features. One is a negative handshape, phonetically equivalent to the fingerspelled letter – in ASL. It also seems that a horizontal handwave and a side-to-side headshake have equivalent negative force, but the two cannot be used simultaneously. The structures of negative words and sentences show that CSL has a unique grammatical system that forces us to rethink some of our assumptions about sign language negation.

This collection of research reports and essays on the themes of teaching, assessment, and rehabilitation of people with disabilities is divided into three sections. The first focuses on creativity in the lives of children with disabilities. In the second section, the interaction of hearing loss with speech, sign, writing, and technology is considered. Finally, the empirical results of two research projects are reported: an analysis of the technical register found in professional certification exams in Germany and an analysis of an experimental distance learning project at a technical college for deaf students in Germany.


In this article, the author demonstrates a flexible coding system for characterizing deaf and hard-of-hearing students' productive English. This system uses codes for identifying and reinforcing students' successful productions and for guiding students' correction of their unsuccessful productions. The system permits teachers and researchers to select logical groupings of codes representing more than 200 English production types, including syntactic categories, grammatical relations, morphological properties, sentence and verb types, semantic relations, information structure, discourse processes, rhetorical devices, and mechanics and punctuation.


This article provides an overview of presentations and activities of a week-long conference on Teaching English to Deaf and Hard-of-Hearing Students at Secondary and Tertiary Levels of Education in the Czech Republic, held at Charles University in Prague, August 22-27, 2004. The article summarizes the English teaching/learning themes addressed in the conference lectures and seminars. These themes pertained both to English teaching/learning per se and to general educational issues. The author discusses the major challenges facing educators of deaf and hard-of-hearing students and their responsibilities for optimizing their students' teaching/learning experience. Emphasis is placed on the critical need to experiment with new methods and materials in an effort to help students to experience the greatest success possible in developing their English language knowledge.

* [AN XXXX] represents a local NTID publications designation. Please include when requesting copies of these publications.

The English literacy challenge confronting NTID students is serious and persistent and has a profound influence on students' prospects for educational and career success. Only a bold, comprehensive English-across-the-curriculum effort can provide the requisite levels of critical complementary and supplementary English support needed for significantly improving students' English literacy skills. A model is proposed that builds on NTID's formal English language programs by involving all NTID faculty in a coordinated college-wide effort. The "English Inspiring the Curriculum" model involves the use of both English for Academic Purposes and English for Specific Purposes. The model incorporates professional development, curriculum enhancement through partnerships with English and curriculum experts, and research to assess the model's effectiveness.


The mean reaction times (RT) of deaf and hearing college students were compared on a mental calculation task for verifying the accuracy of addition and multiplication problems. The deaf college students were divided into higher and lower readers. The results showed that the reaction times and accuracy of the higher deaf readers and hearing students were similar for the addition problems, and that their RT performance was greater under the voicing interference mode. This suggests that both higher deaf readers and hearing students were using an articulatory loop or inner voices to mentally process the arithmetic information. In contrast, the lower deaf readers showed no RT differences between the two interference modes and had consistently lower RT performance and score accuracy across the experimental verification tasks.


This chapter deals briefly with eight topics and more intensely with two issues. It covers deaf teacher participation in the field, the easing of legal mandates, discipline of disabled students by suspension and expulsion in conflict with IEP/placement, communication issues including the general acceptance of ASL as a second language for academic study, the use of multimedia in the classroom, emerging minority populations and their needs, the drying up of funding and support from state and federal sources, and the runaway success of cooperative learning as an instructional strategy. The major trends discussed are the inclusion of deaf students in settings where their communication and social development is at risk and career mobility training for future success in the world of work.

Two reading comprehension studies were conducted with 46 deaf college students for the purpose of 1) examining their comprehension of college level science related material and 2) what strategies may be useful in improving their understanding. The results suggest that students profess a better understanding of what they read than they are able to demonstrate. Also, their inability to identify a topically incongruent sentence further suggests a need for more careful self-monitoring of their reading. The second study on strategy review instruction showed that higher level readers benefited from instruction, but lower level readers did not. Post study interviews and a read aloud task were conducted with the students to obtain additional information about their comprehension, reading habits, and use of reading comprehension strategies.


In this study of deaf college students’ performance solving compare word problems, relational statements were either consistent or inconsistent with the arithmetic operation required for the solutions. The results support the consistency hypothesis Lewis and Mayer (1987) proposed based on research with hearing students. That is, deaf students were more likely to miscomprehend a relational statement and commit a reversal error when the required arithmetic operation was inconsistent with the statement’s relational term (e.g., having to add when the relational term was less than). Also, the reversal error effect with inconsistent word problems was magnified when the relational statement was a marked term (e.g., a negative adjective such as less than) rather than an unmarked term (e.g., a positive adjective such as more than). Reading ability levels of deaf students influenced their performance in a number of ways. As predicted, there was a decrease in goal-monitoring errors, multiple errors, and the number of problems left blank as the reading levels of students increased. Contrary to expectations, higher reading skills did not affect the frequency of reversal errors.


Project SOLVE addresses, in an innovative and practical way, a critical problem facing most deaf college students and other learners with special needs – inadequate preparation and practice in problem solving and analytical thinking. Supported by a grant from the Fund for the Improvement of Postsecondary Education (FIPSE), U.S. Department of Education, Project SOLVE will provide web-based problem-solving instruction and guided practice for math word problems. This project also has instructional implications for high school students who are college bound, and who face similar difficulties with reading comprehension, problem-solving logic, and organization.

One hundred and thirty-three mathematics teachers of deaf students from grades 6–12 responded to a survey on mathematics word problem-solving practices. Half the respondents were teachers from center schools and the other half from mainstream programs. The latter group represented both integrated and self-contained classes. The findings clearly show that regardless of instructional setting, deaf students are not being sufficiently engaged in cognitively challenging word problem situations. Overall, teachers were found to focus more on practice exercises than on true problem-solving situations. They also emphasize problem features, possibly related to concerns about language and reading skills of their students, rather than analytical and thinking strategies. Consistent with these emphases, teachers gave more instructional attention to concrete visualizing strategies than to analytical strategies. Based on the results of this study, it appears that in two of the three types of educational settings, the majority of instructors teaching mathematics and word problem solving to deaf students lack adequate preparation and certification in mathematics to teach these skills. The responses of the certified mathematics teachers support the notion that preparation and certification in mathematics makes a difference in the kinds of word problem-solving challenges provided to deaf students.


In a study, deaf and hearing college students were given 30 mathematics problems to solve. The results show that the deaf college students, regardless of reading level, were comparable in performance to the hearing college students when solving the numeric/graphic problems and the initial, least complex set of corresponding word problems.


A review of research on deaf students in higher education reveals a significant body of knowledge about the barriers these students face in gaining access to information in the classroom. Much less is known about the potential solutions to these problems. In addition, there is a dearth of research on the effectiveness of such support services as interpreting, note taking, real-time captioning, and tutoring, particularly with regard to their impact on academic achievement. This article summarizes relevant research and suggests directions for educational researchers interested in enhancing academic success and the retention of deaf students in higher education programs.


The National Science Foundation’s Clearinghouse on Mathematics, Engineering, Technology and Science (COMETS) is developing a new resource on the World Wide Web for math teachers who have deaf students in their classroom. Over the next two years, the COMETS web site will make information available to math teachers.

Two reading comprehension studies were conducted with 46 deaf college students for the purpose of 1) examining their comprehension of college level science related material and 2) what strategies may be useful in improving their understanding. The results suggest that students profess a better understanding of what they read than they are able to demonstrate. Also, their inability to identify a topically incongruent sentence further suggests a need for more careful self-monitoring of their reading. The second study on strategy review instruction showed that higher level readers benefited from instruction, but lower level readers did not. Post study interviews and a read aloud task were conducted with the students to obtain additional information about their comprehension, reading habits, and use of reading comprehension strategies.


In this study of deaf college students’ performance solving compare word problems, relational statements were either consistent or inconsistent with the arithmetic operation required for the solutions. The results support the consistency hypothesis Lewis and Mayer (1987) proposed based on research with hearing students. That is, deaf students were more likely to miscomprehend a relational statement and commit a reversal error when the required arithmetic operation was inconsistent with the statement’s relational term (e.g., having to add when the relational term was less than). Also, the reversal error effect with inconsistent word problems was magnified when the relational statement was a marked term (e.g., a negative adjective such as less than) rather than an unmarked term (e.g., a positive adjective such as more than). Reading ability levels of deaf students influenced their performance in a number of ways. As predicted, there was a decrease in goal-monitoring errors, multiple errors, and the number of problems left blank as the reading levels of students increased. Contrary to expectations, higher reading skills did not affect the frequency of reversal errors.


Project SOLVE addresses, in an innovative and practical way, a critical problem facing most deaf college students and other learners with special needs – inadequate preparation and practice in problem solving and analytical thinking. Supported by a grant from the Fund for the Improvement of Postsecondary Education (FIPSE), U.S. Department of Education, Project SOLVE will provide web-based problem-solving instruction and guided practice for math word problems. This project also has instructional implications for high school students who are college bound, and who face similar difficulties with reading comprehension, problem-solving logic, and organization.
One hundred and thirty-three mathematics teachers of deaf students from grades 6-12 responded to a survey on mathematics word problem-solving practices. Half the respondents were teachers from center schools and the other half from mainstream programs. The latter group represented both integrated and self-contained classes. The findings clearly show that regardless of instructional setting, deaf students are not being sufficiently engaged in cognitively challenging word problem situations. Overall, teachers were found to focus more on practice exercises than on true problem-solving situations. They also emphasize problem features, possibly related to concerns about language and reading skills of their students, rather than analytical and thinking strategies. Consistent with these emphases, teachers gave more instructional attention to concrete visualizing strategies than to analytical strategies. Based on the results of this study, it appears that in two of the three types of educational settings, the majority of instructors teaching mathematics and word problem solving to deaf students lack adequate preparation and certification in mathematics to teach these skills. The responses of the certified mathematics teachers support the notion that preparation and certification in mathematics makes a difference in the kinds of word problem-solving challenges provided to deaf students.

In a study, deaf and hearing college students were given 30 mathematics problems to solve. The results show that the deaf college students, regardless of reading level, were comparable in performance to the hearing college students when solving the numeric/graphic problems and the initial, least complex set of corresponding word problems.

A review of research on deaf students in higher education reveals a significant body of knowledge about the barriers these students face in gaining access to information in the classroom. Much less is known about the potential solutions to these problems. In addition, there is a dearth of research on the effectiveness of such support services as interpreting, note taking, real-time captioning, and tutoring, particularly with regard to their impact on academic achievement. This article summarizes relevant research and suggests directions for educational researchers interested in enhancing academic success and the retention of deaf students in higher education programs.

The National Science Foundation's Clearinghouse on Mathematics, Engineering, Technology and Science (COMETS) is developing a new resource on the World Wide Web for math teachers who have deaf students in their classroom. Over the next two years, the COMETS web site will make information available to math teachers.

The Classroom of the Sea (COS) is an innovative National Science Foundation-sponsored project that offers high school deaf students an integrated curriculum based on an interdisciplinary field, marine science. This program was to provide authentic science activities through marine science laboratory activities.


This paper summarizes the early work of Frederick Augustus Porter Barnard, a deaf scientist and educator, on communication and teaching in classrooms for deaf student. Although published only two decades after formal schooling began in America, Barnard’s analysis of sign language, in particular, displays a thorough understanding of critical issues, written in an undated style. Making this a must reading for all who teach deaf students today.


This chapter discusses the education of deaf children, with education defined not just in terms of teachers and classrooms, but including all of the implicit and explicit teaching and learning that goes on throughout a child’s life. In this sense, the chapter simultaneously is about the development of deaf children, with development meant in the broad sense of promoting the development of deaf children (“developing deaf children”) as they naturally grow and learn (“deaf children developing”). Unfortunately, scientists often are content to document how deaf children develop under different conditions with less concern about the broader implications of what they find, whereas teachers and parents focus on fostering development along particular lines with less concern about the whys of development. As a result, we often miss opportunities for effective interactions among parents, teachers, and researchers. This has to change. We need make use of information that is available—and often obvious—to others so as to optimize educational opportunities for each deaf child.


This chapter addresses the future of research in deaf studies and deaf education. The first half concerns the current opportunities and challenges for research in deaf education and allied fields, together with some of the factors shaping the current and future research agendas. The second presents an informal study of priorities for investigation in the field, as seen by those most centrally involved in day-to-day educational and research activities.

As one looks at various countries around the world, including Taiwan and the United States, there are many differences in deaf education, in the understanding of strengths and needs of deaf children, and the visibility of the Deaf community within larger society. Whatever else their goals, however, deaf people in all countries seek better support from educators and governments for deaf children and ways to optimize their educations and their future employment. These same goals are held by all parents of deaf children—whether deaf or hearing.


The purpose of this chapter is to examine some of the relations between development and education with particular regard to children who are deaf.


This study explored theory of mind by examining stories told by children who are deaf and hearing (age 9-15 years) for statements ascribing behaviour-relevant states of mind to themselves and others. Both groups produced such attributions, although there were reliable differences between them. Results are discussed in terms of the cognitive abilities assumed to underlie false belief and narrative paradigms and the implications of attributing theory of mind solely on the basis of performance on the false belief task.


College students with a history of mild TBI in childhood or adolescence are intellectual unimpaired and approach their studying in a similar manner to their uninjured classmates. Nevertheless, they report more severe distress in terms of their general personal and emotional functioning.


Research on cognitive functioning in deaf individuals, like more specific topics such as intelligence or social functioning, could seem like a slippery slope within the field of deaf studies. That is, such research might be seen by some as having an outdated or even sinister agenda. Recent studies, however, have obtained findings of significant theoretical and practical importance for parents and educators of deaf children and others who seek to discover how hearing loss and the use of a visual/spatial language might influence social, language, and cognitive functioning.

A wide range of international experts present a comprehensive and accessible overview of the diverse field of deaf studies, language, and education. Pairing practical information with detailed analyses of what works, why, and for whom, and banishing the paternalism once intrinsic to the field, the handbook consists of specially commissioned essays on topics such as language development, hearing and speech perception, education, literacy, cognition, and the complex cultural, social, and psychological issues associated with individuals who are deaf or hard of hearing.


Attention Deficit Hyperactivity Disorder (ADHD) is a highly heritable, neurobiological based disorder of attention and self-control that can seriously impair an individual's ability to learn and succeed in school. Our work underscores the need to carefully evaluate the validity of existing assessment instruments and test norms when developing a protocol to evaluate deaf individuals for ADHD.


The Test of Variables of Attention (T.O.V.A) is a continuous performance test used widely to help diagnose attention deficit hyperactivity disorder (ADHD) in both hearing and deaf people. The T.O.V.A. previously has been normed only on the hearing population. The T.O.V.A. performance of 38 prelingually and severely-to-profoundly deaf young adults and 34 hearing young adults who did not have ADHD was examined in this study. Deaf and hearing participants did not differ on the T.O.V.A. omission variables. However, deaf participants had significantly lower d' scores than hearing participants, indicating reduced perceptual sensitivity to the distinction between target and distractor stimuli. Deaf participants also showed 2 to 3 times more commission errors than hearing participants and displayed a higher incidence of anticipatory errors. These results suggest a deafness-related increase in impulsivity at the time of response initiation. Separate factor analyses of the standard T.O.V.A variables revealed highly similar factor structures for deaf and hearing participants, indicating similar construct validity of the T.O.V.A. for both groups. The evidence for increased inattention and impulsivity in a non-ADHD deaf sample are interpreted in the context of an adaptive attentional reorganization due to deafness. Along with the factor analytic results, these considerations suggest that separate T.O.V.A. norms must be developed for the deaf population to avoid overdiagnosis of ADHD in deaf individuals.

This investigation compared 267 students with a hearing loss and 178 students with no declared form of disability who were taking courses by distance learning in terms of their scores on an abbreviated version of the Academic Engagement Form. Students with a hearing loss obtained lower scores than students with no disability with regard to communication with other students, but some felt that communication was easier than in a traditional academic situation. Students who were postvocationally deaf had lower scores than students with no disability on learning from other students, but they obtained higher scores on student autonomy and student control. In general, the impact of a hearing loss on engagement in distance education is relatively slight.


A study was conducted to compare the responses of 149 deaf students and 121 hearing students taking the same courses to a shortened and adapted version of the Approaches to Studying Inventory. In general, the impact of deafness on approaches to studying are relatively slight, and deaf students appeared to be at least as capable as hearing students of engaging with underlying meaning of the materials to be learned. This book chapter discusses recent trends and advances in audiologic rehabilitation using computer-assisted instruction, computer-based audiologic rehabilitation (AR), computer-aided speechreading training (CAST), and other computer based technologies.


This web site shares information about relevant issues, existing resources, contemporary research, and useful publications on LD and ADHD in deaf children and adults. Links are provided to identification and assessment of LD and ADHD, and to remediation, instruction, management, and accommodation of children and adults with LD or ADHD. Extensive bibliographies of articles on LD and ADHD in the deaf population, and on articles and videos that discuss effective teaching methods are presented at the site along with informative summaries of their content.


In this chapter we discuss four categories of alternative placements: (1) separate schools, (2) resource rooms and separate classes, (3) general education classes, and (4) co-enrollment classes. Two questions that immediately arise regarding these options are, What are the differences in the experiences of students in these alternative placement types? What are the differences in the characteristics and attainments of students in these placement types? A more complex question is, Is it possible to relate these different educational experiences to characteristics and attainments of the students? That is, do different experiences produce different educational consequences? The second and third sections of this chapter consider the research that best answers these questions. The first section provides background, description, and conceptualization that aids understanding of the research that this chapter reviews and of thinking in the field in regard to alternative types of placement.

Quality of life is an area of nonacademic influence to which college programs can contribute significantly. It is proposed that a satisfying quality of life can enhance college success by increasing degree of academic engagement, regardless of a student's hearing status. A study of the quality of life of 200 deaf and hard-of-hearing students on a mainstream college campus is summarized as an example of how to define and measure baseline wellness using paper surveys and interviews. Life domains were defined through statistical analysis of students' responses. The most satisfying domains were Community Well-Being and Overall Life Satisfaction. Physical Well-Being was least satisfying. Intermediate were Social, Psychological, and Academic Well-Being. Although students acknowledged the educational benefits of their campus experience, they put more emphasis on intra-personal and inter-personal experiences, consistent with findings on other campuses. College programming that can promote connections to the campus environment, thereby enhancing students' perceived quality of life, include pre-college orientation, a freshman seminar course, learning communities, and non-academic programs that focus on campus life outside the classroom. It remains for future research to determine the extent to which attention to quality of life can affect academic engagement and enhance academic success.


This chapter discusses the author's thoughts and feelings about her experience of living in a bilingual-bicultural family.


This paper discusses the issue of whether or not deafness should be considered a disability, and the ramifications for those who believe that it is a cultural difference, rather than a disability.


This article explores the ways in which deaf college students who are members of minority racial groups think about and describe their identities. In-depth, semistructured interviews with 33 deaf students of Asian American, Hispanic American, and African American background were analyzed for themes regarding the self-reported identities of respondents. Results suggest that each person is a constellation of many parts, some of which are stronger than others but any of which can be drawn out in response to a particular set of circumstances, resulting in a contextual and interactive model of identity. Four factors are described as central to this “intraindividual” model: individual characteristics, situational conditions, social conditions, and societal conditions. Additionally, the model includes a biographical component reflected in changes in identity that occur over time. Findings are discussed as they relate to identity theory. The article is concluded with recommendations for further research, as well as considerations for educators and counselors of deaf minority students.

* [AN XXXX] represents a local NTID publications designation. Please include when requesting copies of these publications.

This paper focuses on the assessment of communication among deaf and hearing persons within work settings. The paper is organized into two sections. In the first section, findings are presented from an ethnographic study of deaf professionals who have achieved relative success in their employment. The results from this study provide the foundation for a model of communication in work settings, presented in the second section of the paper. This model uses an ecological approach, focusing on assessment of communication at the individual level as it occurs within the broader context of organizational culture, influenced by national trends regarding legal rights, technological advances, and social awareness/attitudes towards deafness.


Definitions of inclusion, as well as models for how best to implement the agreed-upon definitions, may vary from one country to another, reflecting the unique characteristics of the society and culture. On the other hand, elements of inclusion may be universal, reflecting similar goals, functions, and experiences across countries. The purpose of this paper is to open a dialogue on cross-cultural meanings of educational inclusion for deaf students. The opportunity to explore this topic was the result of participation by the authors in 'Project Inclusion', an international course on educational inclusion of deaf students. As course instructors, we met regularly to design the curriculum of the course and have offered the course twice. Using our instructor team discussions of inclusion as a starting place, we discuss how educational inclusion is practised within each of the four partner countries. The paper concludes with reflections about the ways in which inclusion is embedded in the philosophy, values, culture, politics and history of each country.


This chapter studies the educational history of deaf people from 360 B.C. to current times. It's a study of societal and cultural change that has implications for parents and educators today.


The sociocultural model of deafness views deaf people as a bilingual-bicultural minority group in America. The advantages and limitations of this model are reviewed here. The increasing ethnic and linguistic diversity among American deaf people suggest that a multicultural approach to deaf education that takes into account factors such as parental ethnic and linguistic background, race, and socio-economic status will provide deaf people with optimal access to language and information. The impact of diversity on the development of the self-identity and group-identity of deaf people is discussed. How to incorporate issues related to diversity in the educational experience of deaf people and the role teachers can play as agents of change are also discussed.
The perspective that deaf people should be regarded primarily as a cultural and language minority group rather than as individuals with an audiological disability is gathering support among educators, linguists and researchers involved in deaf education. It becomes clear that the experiences of many American deaf people are quite similar to those of other bilingual minority groups of America.

Abstract: Deaf college students' attitudes toward a variety of issues related to racial/ethnic diversity were surveyed by contacting all racial/ethnic minority deaf students and a random sample of Caucasian deaf students attending the National Technical Institute for the Deaf, Rochester Institute of Technology. Thirty eight percent completed the survey. Although racial/ethnic groups were similar in their perception of the institute's commitment and efforts related to diversity, they were significantly different on some items related to campus climate and role models. Furthermore, the racial/ethnic minority groups differed from each other in their perception of campus comfort level, racial conflict, friendship pattern, and the availability of role models. Educational satisfaction was positively correlated with campus comfort level and both correlated negatively with perception of discrimination and racial conflict. The qualitative data analyses supported the quantitative data analyses and provided rich detail that help interpret the experiences of deaf students related to racial/ethnic diversity.

This document is a scholarly review of a commonly used paper-and-pencil instrument for measuring a person's attitudes toward deaf people and their abilities.

This chapter is divided into three sections. The first section, Elements of Socialization, describes those key processes that are essential to the social development of deaf and hard of hearing youths in school settings. The second, Educational Practice and Socialization, describes those educational practices that either promote or inhibit the development of optimal conditions for socialization in schools. The chapter concludes with recommendations for future research and innovation practice regarding the personal and social development of deaf and hard of hearing persons in school settings.

This article examines the key issues of motivation, peer relationships, and identity as they pertain to adolescents with hearing impairments. These issues are discussed within the framework of the social and psychological development of adolescents who can hear, and are then connected to pertinent research that has been conducted with adolescents who are deaf or hard of hearing.
CAREER DEVELOPMENT

The study investigated the expressed advice of parents, teachers, and Deaf community leaders regarding careers for deaf students in Sweden. The research was conducted: (a) in a country where consensus has been achieved on recognition and accommodation of the educational needs of deaf students; (b) in a city with a very high concentration of deaf individuals, a continuum of educational facilities, and support for deaf students ranging from preschool through college; and, (c) in a community with a strong and active deaf organization and parent organization.


This paper focuses on the assessment of communication among deaf and hearing persons within work settings. The paper is organized into two sections. In the first section, findings are presented from an ethnographic study of deaf professionals who have achieved relative success in their employment. The results from this study provide the foundation for a model of communication in work settings, presented in the second section of the paper. This model uses an ecological approach, focusing on assessment of communication at the individual level as it occurs within the broader context of organizational culture, influenced by national trends regarding legal rights, technological advances, and social awareness/attitudes towards deafness.


A qualitative study of deaf graduates of Rochester Institute of Technology in New York State who became supervisors in primarily hearing work settings found that having a mentor was a primary and persistent element in their career success. In the deaf individual's early years, generally it was a family member or teacher who conveyed a belief in that individual's abilities, encouraged effort, and helped instill self-esteem and confidence. Parents were often their strongest advocates, and teachers were their advisors and facilitators. In the work setting, a supervisor or coworker often served as a mentor by coaching, advising, and teaching the individual what they needed to know to succeed on the job. In many ways, these "informal" mentors provided the foundation that enabled the deaf individual to break through what are often barriers to career success despite their skills and abilities. The various forms of mentorship and their impact on deaf college graduates are explored.

* [AN XXXX] represents a local NTID publications designation. Please include when requesting copies of these publications.
TECHNOLOGY INTEGRATION

This paper discusses the planning, development, delivery, and evaluation of a weeklong teacher-training workshop for teachers of English to deaf and hard-of-hearing students at postsecondary institutions in Russia, the Czech Republic, Japan, and the Philippines. Workshop presenters used a combination of technological resources and traditional teacher-training techniques to familiarize workshop participants with best practices in teaching English. Given the unique challenges of teaching deaf and hard-of-hearing students in non-English-speaking countries, the workshop sessions reviewed state-of-the-art methods and materials both for teaching English as a second language generally and for teaching English to deaf and hard-of-hearing students specifically. A post-workshop CD-ROM containing all workshop materials to be used for international dissemination has been produced. Participants' high ratings of the workshop reveal that the combination of technological and traditional resources contributes to highly successful teacher-training experiences.


While computer technologies have been available to schools in substantial numbers for about 15 years, we are now in a period of transition for technology in education. Choices made now will determine whether our schools successfully make the transition.


Student success using an assistive technology may be partially attributed to educators' acceptance of the technology. High school and college educators in New York and California participated in a qualitative study of the implementation of a speech-to-text support service for students who are deaf or hard of hearing. Educators' interviews were analyzed using criteria from Rogers (1995) model of diffusion of innovations. Educators accepted the support service due to its relative advantage to other notetaking services, perceived simplicity of the system, and perceived potential for students. Acceptance was less clear-cut in the domains of compatibility and trialability. Educators were less certain that it was compatible with their expectations for student learning in the classroom and trialability of the service was influenced by educators' perceptions of how they were approached for the trial of the service in their classrooms. Results of this study suggest that successful implementation of assistive technology depends on the ability to satisfy both student needs and educators' values.

* [AN XXXX] represents a local NTID publications designation. Please include when requesting copies of these publications.

Lectures remain the predominant instructional technique in many high school and college classrooms (Armbruster, 2000) and note taking stands out as the valued way of capturing the knowledge transferred during these lectures (Dunkel & Davy, 1989). We also know that study skills, including those related to notes and note taking are important for academic success. However, the literature on studying contains very few studies that look at students' actual study skills and there are even fewer studies that include deaf students. One critical problem with much of the study skills and note taking literature is that it assumes that all students take their own notes. However, many deaf students do not take their own notes, but rather rely on a note taker support service. Today, many note taker support services use computer-assisted speech-to-text note taking systems. The purpose of this study is to explore how high school and college students and their teachers utilized the notes produced by the C-Print® speech-to-text support service. The research was guided by three questions: (a) How did students use the notes produced by the speech-to-text support service? (b) How did teachers use the notes? and, (c) How do notes enhance student understanding and class participation?


Thirty-six mainstream high school and college students who are deaf and hard of hearing received notes from a speech-to-text support service called C-Print. The students, 26 classroom teachers, and 10 teachers of the deaf were interviewed about their perceptions of how students use their notes to study. Consistent with research on hearing students, high school students in this study typically would read the notes only, while college students used multiple study strategies with the notes. Teachers tended not to know how their students used their notes for studying, and they were sometimes reluctant to teach students about effective note usage. This study supports the idea that both students and teachers could benefit from further instruction on note usage and study skills.


A survey was mailed to 247 individuals who participated in C-Print captionist training workshops over the past 5 years. One hundred ten individuals responded for a response rate of 45%. This paper describes the results of the survey.


C-Print refers to a family of computer-assisted, speech-to-print technologies. Here, we briefly describe the service and review recent findings and forthcoming enhancements to the system.


C-Print is a real-time speech-to-text transcription system used as a support service with deaf students in mainstreamed classes. Questionnaires were administered to 36 college students in 32 courses in which the C-Print system was used in addition to interpreting and note taking. Twenty-two of these students were also interviewed.

Project Solve addresses, in an innovative and practical way, a critical problem facing most deaf college students and other learners with special needs – inadequate preparation and practice in problem solving and analytical thinking. Supported by a grant from the Fund for the Improvement of Postsecondary Education (FIPSE), U.S. Department of Education, Project Solve will provide web-based problem-solving instruction and guided practice for mathematical word problems. While deaf college students are the primary audience, this project has clear implications for other college students for whom reading and comprehension of mathematical word problem solving is difficult, especially Learning Disabled (LD) students. This project also has instructional implications for high school students who are college bound, and who face similar difficulties with reading comprehension, problem-solving logic, and organization.


This chapter provides an overview of the educational applications of technology for students who are deaf, hard of hearing, blind, or partially sighted. It describes and discusses current, state-of-the-art instructional and educational technology along with practical examples of utilization for each of the identified student populations. Examples from actual classroom applications are included.


Cochlear implants have given many late-deafened adults renewed access to auditory information and to their habitual social and communicative networks. For many children, cochlear implants also have provided access to the world of sounds and of auditory-based language. The process of learning to use information generated by a cochlear implant is typically lengthy, however, and focused practice and therapy are necessary. Eventual speech perception, production, and spoken language skills (including vocabulary and syntax development), are interrelated and vary widely, with some children receiving almost no benefits and others acquiring skills much like those of their hearing peers. Preliminary evidence indicates some reading and academic skill benefits from children's increased access to audition, but results are mixed, and more research is needed.
This project adapted new automatic speech recognition (ASR) technology to provide real-time speech-to-text transcription as a support service for deaf and hard-of-hearing (D/HH) students. In this system, as the teacher speaks, a hearing intermediary, or captionist, dictates into the speech recognition system in a computer that converts the dictated words of the teacher into print. The process of the captionist repeating the teacher’s words is called “shadowing.” One of the purposes of the project was to conduct this work to adapt ASR so that it could function successfully as a support service. The second purpose of the project was to evaluate the effectiveness of the ASR system. This evaluation focused on the ability of D/HH students to remember information presented with ASR and the perceptions of the students regarding the extent they could comprehend information that was presented with the ASR system.

This report has three parts. The first part focuses on the work to apply ASR to the support of D/HH students in regular classes. The second part discusses the evaluation. The third part discusses and interprets the outcomes of these two components of the work and makes suggestions for further work.


This article explains, discusses, and reviews the pros and cons of using C-Print technology in the classroom.


In the past 25 years, the number of deaf and hard-of-hearing students being educated in classes with hearing students in the United States has increased significantly at both secondary and postsecondary levels. This article describes features of the C-Print system.


For the past 10 years, a research and development group at NTID has been working to develop a speech-to-text classroom support systems that we call C-Print. Over these years, the group has made continuous improvements in C-Print and in strategies for implementing the system in high schools and colleges. The group also initiated nation-wide training to C-Print captionists to support deaf and hard-of-hearing students, from Maine to California and from North Dakota to Louisiana. In this article we describe and reflect upon the emergence of C-Print from an idea to a system that hundreds of deaf and hard-of-hearing students depend on everyday for classroom communication access and learning.
TEACHER AND INTERPRETER EDUCATION


The first document above provides a model annual sign language program report that has been informed by experiences gained in collaboration with colleagues at the South Carolina School for the Deaf & the Blind (SCSDB), and the second document provides a report on the Florida School for the Deaf & the Blind (FSDB) Staff Sign Language Program. These two documents may serve as model reports for sign language assessment and development programs, helping to monitor program results in order to assist in determining the appropriateness and fairness of sign language communication skill level standards/goals, entry skill levels, and, if established, timeliness for achieving these skill levels.

* [AN XXXX] represents a local NTID publications designation. Please include when requesting copies of these publications.

** National distribution for all of these books via Assistive Communication Center, Butte Publications, Harris Communications, & RIT Bookstore - see section of this booklet entitled “Available for Purchase”). In 1975, just seven years after NTID accepted its first students, a project for developing sign language materials for technical terminology was initiated at NTID. The goal of this project, the NTID Technical Signs Project (TSP), was to support effective, efficient, and consistent use of sign language terminology in academic and career environments by documenting and sharing how skilled, knowledgeable signers communicate content in technical fields. The TSP is based on three basic and related principles: (1) sign languages, similar to spoken languages, follow a natural process for developing and standardizing vocabulary; (2) within this natural development and standardization process skilled signers develop and refine sign language vocabulary that is consistent with effective use of the human gestural-visual systems for communication; and, therefore, (3) in order to support effective, efficient, and consistent use of sign language vocabulary, sign language materials need to document sign language as it is used by skilled, knowledgeable signers. The above four books, together with the other sign language materials for technical communication listed in the section of this booklet entitled “Available for Purchase,” are the culmination of 30 years of research on the use of signs for technical terminology by skilled signers across the United States.

Initiated in 1998 to provide responses to frequently asked questions by Sign Communication Proficiency Interview (SCPI) Coordinators and Team Members, this document includes 17 papers. Among the questions/topics addressed are: (1) What Does the SCPI Assess? (2) Fluctuations in SCPI Results; (3) Can ASL Teachers Serve as SCPI Interviewers & Raters for People They Have Taught?; (4) Options for Conducting & Sharing Results of SCPI Ratings, (5) The Importance of SCPI Reliability Studies and Monitoring Ratings by SCPI Team Members; (6) Support for Local SCPI Teams & Team Training; (7) Sign Language Assessment of Students & ASL Assessment Options; (8) Monitoring Sign Language Communication Skills Development; and (9) Principles for Development & Refinement of Sign Language Communication Philosophy, Policy, & Procedures Documents.


The Classroom Sign Language Assessment (CSLA) is a classroom-based assessment of instructors’ classroom sign language communication skills that may be used to assist in planning sign language communication skills development. This document provides readers with a brief history of the CSLA, copies of CSLA forms, and detailed information about administering the CSLA.


This paper includes a selected listing of ASL and Deaf Culture materials, major ASL curriculums, sign language materials for technical communication, and websites that include ASL and Deaf culture information.


When interpreting between American Sign Language (ASL) and English, linguistic and cultural mediation is necessary in order to provide source and target message equivalence. One aspect of this linguistic and cultural mediation has been identified by Lawrence (1994) as expansions. Expansions are the amplification of certain concepts of English in order to create meaning and be linguistically appropriate in ASL. Conversely, since expansions occur in native ASL discourse, they have significant implications for the ASL-to-English interpreting process such that certain concepts in ASL need to be reduced in order to create meaning and maintain linguistic appropriateness in English. In this paper, this reduction is referred to as compression. The use of compression strategies allows ASL-to-English interpreters to deliver both meaning and intention in linguistically appropriate English. In fact, a number of common ASL-to-English interpreting errors can be eliminated by the use of compression strategies. This paper will introduce the concept of compression strategies, provide methods for teaching compression, and identify appropriate instructional materials to support this teaching.

*ASL at Work – Level One is a comprehensive curriculum for teaching conversational American Sign Language (ASL). It is designed for students who have no (or minimal) knowledge of ASL in the community of Deaf and hearing people who use this language daily.*

*We are in the early days of exploration into the teaching and learning of ASL and interpreting. Much of the last 40 years has been spent in establishing ASL and Deaf Culture as legitimate fields of study. Having gained this recognition, we can now afford the relative luxury of inquiry into competing points of view on what should be taught, how it ought to be taught, how we learn, and how we can best assess learning. Scant attention has been paid to individual differences in learners in this field. Even less attention has been given to the ways in which curriculum is wrought. This article offers a perspective on curriculum deliberation drawn from the works of Reid (1992) and Schwab (1978), and suggests questions and considerations in developing new avenues in the pursuit of our curriculum.*

Peterson, R. (2001). *Scared to deaf: Language anxiety among ASL students.* Published online at http://www.flagler.edu/about_f/deafstudies.html [AN 1813]  
*The study of Language Anxiety among language students has received much attention. This paper seeks to extend that study to students of American Sign Language (ASL). Early work in this area is reviewed, and the preliminary results of the first phase of a study of ASL students are reported. Students’ comments and opinions about the learning process are crucial to the development of curriculum. Heretofore these are a largely untapped resource. This paper addresses the need to include student perceptions in curriculum design.*

*This chapter describes the use of recall protocols both as an instructional technique and as a metric for student comprehension of ASL discourse. The first section provides an overview of the problems of literacy in language learning. Given the high incidence of language learners in interpreting courses, comprehension skills are often lacking. The second section discusses several process models for making meaning. The issue of assessing comprehension is the focus of the third section. In the next section immediate recall protocols are described as an instrument for teaching metacognitive skills and assessing comprehension. A sample recall is detailed, together with sample scoring glosses. Several student recalls are shown, followed by a discussion of scoring features and classroom implications.*
Our system has no way to judge whether deaf students in the educational mainstream are afforded an equal education. Our system has no way to determine whether the education of deaf children in the interpreted mainstream is equal to his hearing counterpart in the same setting, although many have asked that question since the onset of PL94-142 in 1975. This chapter focuses on the individuality of every deaf child and how that individuality impacts his/her L1 acquisition.

In the space of 30 years the education and training of sign language interpreters has evolved from community endeavor to academic enterprise. This transition has served to increase the number of people who receive training, and has thereby helped to satisfy the growing demand for interpreters. While exact figures on employment are not known, 1986 the Registry of Interpreters for the Deaf (RID) had a membership of over 3,000 members from the U.S. where today the number stands at 10,412. However, it is not clear that as we increase the quantity of interpreters we have also maintained the quality of their training. Moving the focus of our learning from the community to the classroom has had another, less desirable affect— that of removing deaf people and their communities from the center of our education. Our migration from community to academy has come at some cost.

This chapter is about the profession of American Sign Language/English interpreting in the United States and the education required to succeed in that profession. It begins with a chronological summary of the most compelling research in the field, as well as issues that show the field's beginnings and reflect a vision for the future. The chapter continues with a look at relevant research and the evolution of the task of American Sign Language/English interpreting, the role of interpreters, quality control, the current status of interpreter education, and the goals for the future.

In collaboration with teachers and students at the National Technical Institute for the Deaf (NTID), the Sign Language Skills Classroom Observation (SLSCO) was designed to provide feedback to teachers on their sign language communication skills in the classroom. In this article, the impetus and rationale for developing the SLSCO is described. Previous studies related to classroom signing and observation methodology are reviewed.


This chapter describes an approach to teaching translation using discourse mapping. Winston and Monikowski (2000) presented a comprehensive description of discourse mapping and described a series of spiraling activities in their explanation of discourse mapping. It is a process that helps students and working interpreters render a successful message and includes accurate content, appropriate context, and appropriate linguistic form.


This chapter presents some preliminary findings from a comparison of interpreted and transliterated texts. It focuses primarily on the prosodic features used for indicating major topic segments in a spoken-English source text. For this chapter, they discuss the similarities and differences among the segment boundaries as they are produced by three interpreters. These interpreters produced signed target interpretations and transliterations of the same source text, providing an opportunity to compare prosodic and linguistic features used in each type of target.


This book chapter examines three aspects of a message for successful interpretation: accurate content (themes, topics, and events); appropriate context (register, settings, speaker’s goals, etc); and appropriate linguistic form (discourse structures, transitions, vocabulary, etc.)
AGING AND DEAFNESS

In 1999 J. Walton, M. Orlando, & R. Burkard (Hearing Research, 127, 86-94) investigated aging effects on auditory brainstem response (ABR) wave V latency using a tone-on-toneburst forward-masking paradigm. They found that at short forward-masking intervals, wave V latency shift was greater in normal-hearing older adults than in normal-hearing young adults for moderate level, high-frequency toneburst maskers and probes. It was not possible to evaluate wave I latency because stimulation and recording procedures did not produce a consistently observable wave I. In order to optimize the recording of wave I, the present study used a high-level (115 dB pSPL) click stimulus, combined with a tympanic membrane inverting electrode, and investigated the latencies and amplitudes of waves I and V across click rate. Young adults had hearing thresholds within normal limits, whereas older adults had normal hearing or mild threshold elevation. All data were collected and analyzed with a Nicolet Bravo. Using conventional recording procedures, ABRs were obtained at click rates of 11, 25, 50, and 75 Hz. Using maximum length sequences (MLSs), ABRs were obtained at 100, 200, 300, 400, and 500 Hz. Results across age groups were very similar. With increasing click rate, peak latencies increased, the I-V interval increased and peak amplitudes decreased. The most notable difference between age groups was that wave I amplitude was substantially smaller in the older subjects. It appears that changes in the ABR with increasing rate are remarkably similar in young and older adults when audiometric thresholds are normal or near-normal in both age groups.


We examined the effects of ipsilateral-direct, continuous, broadband noise on auditory brainstem response (ABR) wave I and V latencies and amplitudes in young adult versus older adult humans. It was hypothesized that age might influence the effects of masking noise on ABR peak latencies and/or amplitudes, given the frequent complaint of older persons' ability to process speech in background noise. Young adults had hearing thresholds of 20 dB HL or better for the octave frequencies from 250 to 8,000 Hz. A subset of older study participants had thresholds of 20 dB HL or better across frequency, but others had thresholds up to 45 dB HL. All data were collected and analyzed with a Nicolet Bravo. An electrode was placed on the tympanic membrane (as well as on high forehead and contralateral mastoid), and a click level of 115 dB pSPL was used to maximize wave I amplitude. Masker conditions included a no-noise control and noise levels ranging from 20 to 70 dB effective masking, in 10 dB steps. With increasing noise level, both age groups showed minimal changes in wave I latency, but substantial increases in wave V latency and I-V interval. Peak amplitudes decreased with increasing noise level. Mean amplitudes were smaller for the older group, most notably for wave I. Mean peak latencies were greater in the older group, but the I-V interval was similar across age groups, as was the change in peak latencies and I-V interval across noise level. ABR parameters for the older adults with hearing meeting the 20-dB HL criterion at all frequencies (older-better) were compared to those who didn't meet this criterion (older-worse). Mean wave I latency was greater and wave V latency and I-V interval were smaller for the older-worse group at all noise levels. Mean wave I and V amplitudes were similar for the older-better and older-worse groups. In participants with normal or near-normal hearing, ABR changes with increasing age included small latency increases and a substantial reduction in wave I amplitude. The effects of ipsilateral-direct masking noise on the click-evoked ABR are similar for young and older adults.

* [AN XXXX] represents a local NTID publications designation. Please include when requesting copies of these publications.
Current and promising future treatments for presbycusis are reviewed. Proceeding from the evidence that compensatory functional reorganization of the brain takes place with aging, rehabilitation efforts should include appropriate treatment of the peripheral and central components of age-related hearing handicaps. Treatment may include addressing age-related declines in neurochemistry, but also may include behavioral training in compensatory communication strategies following the establishment of successful hearing aid use. This chapter has one section that summarizes animal experiments which may lead to human biochemical, bioelectric, or other interventions to reduce or reverse the effects of aging in the auditory system; the second section summarizes current and potentially fruitful future approaches to audiologic rehabilitation. In this chapter, we provide the reader with cross-discipline vantage points in order to facilitate collaborative, applied research.


In an earlier study, we found that speech understanding in a fluctuating background is related to temporal processing as measured by the detection of gaps in noise bursts. Fifty adults with normal or mild high-frequency hearing loss served as subjects. Gap detection thresholds in noise were obtained using a 150-ms noise burst with the gap placed close to carrier onset. NU-6 word scores for the subjects were obtained at a presentation level of 55 dB HL in competing babble levels of 50, 55 and 60 dB HL. A repeated measures analysis of covariance of the word scores examined the effects of age, absolute sensitivity, and temporal sensitivity. The results of the analysis indicated that word scores in competing babble decreased significantly with increases in babble level, age, and gap detection thresholds. The effects of absolute sensitivity on word scores in competing babble were not significant. These results suggest that in the absence of clinically significant hearing loss, age and temporal processing influence speech understanding in fluctuating backgrounds. In a more recent study, gap detection thresholds were obtained in comparable dichotic conditions with similar groups of younger, middle-aged, and older listeners. The relationship between dichotically obtained gap thresholds and speech scores will be presented. Finally, a third study was designed to determine the effect of moderate to severe hearing loss on temporal acuity and its relationship to speech discrimination in noise. Gap detection thresholds and word scores were obtained across a range of background noise levels in 13 young subjects. Five had normal hearing; eight had moderate to severe bilateral hearing losses. The relationship between gap detection thresholds and speech scores in younger adults with moderate to severe hearing loss will be discussed. This research was supported by the Rochester International Center for Hearing and Speech Research and a grant from NIA.

The relationships among age-related differences in gap detection and word recognition in subjects with normal hearing or mild sensorineural hearing loss were explored in two studies. In the first study, gap thresholds were obtained for 40 younger and 40 older subjects. The gaps were carried by 150-ms, modulated, low-pass noise bursts with cutoff frequencies of 1 or 6 kHz. The noise bursts were presented at an overall level of 80 dB SPL in three background conditions. Mean gap thresholds ranged between 2.6 and 7.8 ms for the younger age group and between 3.4 and 10.0 ms for the older group. Mean gap thresholds were significantly larger for the older group in all six conditions. Gap thresholds were not significantly correlated with audiometric thresholds in either age group but the 1-kHz gap thresholds increased with age in the younger group. In the second study, the relationships among gap thresholds, spondee-in-babble thresholds, and audiometric thresholds of 66 subjects were examined. Compared with the older subjects, the younger group recognized the spondees at significantly lower (more difficult) spondee-to-babble ratios. In the younger group, spondee-in-babble thresholds were significantly correlated with gap thresholds in conditions of high-frequency masking. In the older group, spondee-in-babble thresholds, gap thresholds, and audiometric thresholds were not significantly correlated, but the spondee-in-babble thresholds and two audiometric thresholds increased significantly with age. These results demonstrate that significant age-related changes in auditory processing occur throughout adulthood. Specifically, age-related changes in temporal acuity may begin decades earlier than age-related changes in word recognition.


This study was designed to clarify whether speech understanding in a fluctuating background is related to temporal processing as measured by the detection of gaps in noise bursts. Fifty adults with normal hearing or mild high-frequency hearing loss served as subjects. Gap detection thresholds were obtained using a three-interval, forced-choice paradigm. A 150-ms noise burst was used as the gap carrier with the gap placed close to carrier onset. A high-frequency masker without a temporal gap was gated on and off with the noise bursts. A continuous white-noise floor was present in the background. Word scores for the subjects were obtained at a presentation level of 55 dB HL in competing babble levels of 50, 55, and 60 dB HL. A repeated measures analysis of covariance of the word scores examined the effects of age, absolute sensitivity, and temporal sensitivity. The results of the analysis indicated that word scores in competing babble decreased significantly with increases in babble level, age, and gap detection thresholds. The effects of absolute sensitivity on word scores in competing babble were not significant. These results suggest that age and temporal processing influence speech understanding in fluctuating backgrounds in adults with normal hearing or mild high-frequency hearing loss.
AVAILABLE FOR PURCHASE
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>American sign language vocabulary (CD-ROM)</td>
<td>64</td>
</tr>
<tr>
<td>A phone of our own: The deaf insurrection against ma bell. (Book)</td>
<td>58</td>
</tr>
<tr>
<td>ASL video dictionary and inflection guide. (CD-ROM)</td>
<td>61</td>
</tr>
<tr>
<td>C-Print (Online Service)</td>
<td>65</td>
</tr>
<tr>
<td>CTD – Cumulative trauma disorder. Rochester. (VHs/Manual)</td>
<td>64</td>
</tr>
<tr>
<td>Cultural and language diversity and the deaf experience. (Book)</td>
<td>60</td>
</tr>
<tr>
<td>Edmund Booth: Deaf Pioneer (Book)</td>
<td>57</td>
</tr>
<tr>
<td>Educating deaf students: From research to practice. (Book)</td>
<td>59</td>
</tr>
<tr>
<td>Educational interpreting: A practical approach: Consumer awareness,</td>
<td>62</td>
</tr>
<tr>
<td>rights, and responsibilities. (Book)</td>
<td></td>
</tr>
<tr>
<td>From dream to reality: The National Technical Institute for the Deaf,</td>
<td>58</td>
</tr>
<tr>
<td>a college of Rochester Institute of Technology. (Book)</td>
<td></td>
</tr>
<tr>
<td>Interpreter discourse: English to ASL expansion / ASL to English</td>
<td>63</td>
</tr>
<tr>
<td>compression. (CD-ROM)</td>
<td></td>
</tr>
<tr>
<td>Interpreting and interpreter education: Directions for research and</td>
<td>59</td>
</tr>
<tr>
<td>practice. (Book)</td>
<td></td>
</tr>
<tr>
<td>Let’s communicate: Basic signs and tips for communicating with Deaf</td>
<td>65</td>
</tr>
<tr>
<td>people. (Pamphlet)</td>
<td></td>
</tr>
<tr>
<td>Living in the state of stuck: How technology impacts the disabilities.</td>
<td>61</td>
</tr>
<tr>
<td>Oxford handbook of Deaf studies, language, and education. (Book)</td>
<td>59</td>
</tr>
<tr>
<td>Processing skills development. (CD-ROMs)</td>
<td>63</td>
</tr>
<tr>
<td>Psychological perspectives on deafness Vol. 1 &amp; Vol. 2. (Books)</td>
<td>60</td>
</tr>
<tr>
<td>Raising and educating a deaf child. (Book)</td>
<td>59</td>
</tr>
<tr>
<td>Relations of language and thought: The view from sign language and</td>
<td>60</td>
</tr>
<tr>
<td>deaf children. (Book)</td>
<td></td>
</tr>
<tr>
<td>Tips for communicating with people with hearing loss. (Pamphlet)</td>
<td>65</td>
</tr>
<tr>
<td>Sign language materials for technical communication. (Videos/Books)</td>
<td>55</td>
</tr>
</tbody>
</table>

Please note that books, pamphlets, and electronic media listed in this section are available directly from the vendors listed. Contact these vendors for ordering information. Also, please include your complete mailing address.
At NTID we have produced/developed (1) sign language videotapes for 24 technical/specialized content areas, (2) books for 9 of these 24 areas, and (3) two books, now combined into one, that discuss the principles and methodology for our work. In addition, we have produced two CD-ROMS.

NTID has produced videotapes (VTs) for the following areas (numbers in parenthesis designate number of VTs per area):

1. Anthropology (2)
2. Business (1)
3. Career Education (2)
4. Communication: Audiology & Speech Pathology (3)
5. Computer Terminology (3)
6. Economics (2)
7. Employment (1)
8. Engineering (4)
9. English (2)
10. Fine & Applied Arts (1)
11. Human Sexuality (2)
12. Legal (4)
13. Mathematics (2)
14. Optical Finishing Technology (2)
15. Photography (1)
16. Printing (1)
17. Psychology (5)
18. Religion/Catholic (4)
19. Science/General (4)
  Science/Biology (1)
  Science/Physics (2)
20. Secretarial (4)
21. Social Work (2)
22. Sports/General (1)
23. Television/Media (2)
24. Theater (3)

CD-ROMS have been produced for Microsoft Office and Administrative Support Technology (AST).

For information about obtaining copies of NTID technical sign communication videotapes and CD-ROMS, contact Cheryl Mawhiney, NTID Marketing Communications Staff Assistant, 585-475-6906 (V/TTY), cammcm@rit.edu. The videotapes can also be borrowed through the Captioned Media Program at http://www.cfv.org/.
Currently available NTID technical sign communication books include:

1. Project Overview & Reading Technical Signs Diagrams - $10
2. Career Education - $10
3. Communication: Audiology & Speech Pathology - $10
4. English - $6
5. English, Theater, Communication, Career Education - $30
6. Legal & Social Work - $25
7. Religion/Catholic - $10/$12
9. Theater - $10

Distributors of NTID sign language books for technical communication are as follows:

Rochester Institute of Technology
Campus Connections Bookstore
48 Lomb Memorial Dr.
Rochester, NY 14623-5604
585-475-2504 (V), X7071 (TTY), X6499 (FAX)
jmdbkg@rit.edu
http://bookstore.rit.edu

Harris Communications
15159 Technology Drive
Eden Prairie, MN 55344-2277
800-825-6758 (V), X9187 (TTY), X1099 (FAX)
mail@harriscomm.com; http://www.harriscomm.com

Assistive Communication Center
7346 South Alton Way, Suite E
Englewood, CO 80112
303-290-6227 (V/TTY), 800-859-8331 (V/TTY),
303-290-0405 (FAX)

Butte Publications
P. O. Box 1328
Hillsboro, OR 97123-1328
866-312-8883 (TTY/V), 503-693-9526
service@buttepublications.com

Websites that include information about sign language resources include:
http://www.rit.edu/~fccncr/ASLDCM.HTML/HTML
http://wally.rit.edu/pubs/guides/signdict.html
http://wally.rit.edu/booksandmore/ntid
http://www.theinterpretersfriend.com
http://www.rit.edu/~comets/pages/cos/pictionary
http://www.rit.edu/~comets/pages/lexicon

*Edmund Booth: Deaf Pioneer* follows the amazing career of this American original and his equally amazing wife in fascinating detail. Author Harry Lang vividly portrays Booth and his wife by drawing from a remarkable array of original material. A prolific writer, Booth corresponded with his fiance from the American School for the Deaf in Hartford, and he kept a journal during his days on the California trail, parts of which have been reproduced here. He also wrote an autobiographical essay when he was 75, and his many newspaper articles through the years bore first-hand witness to the history of his times, from the Civil War to the advent of the 20th century.

*Edmund Booth depicts a larger-than-life man in larger-than-life times, but perhaps this book's greatest contribution derives from its narrative about pioneer days as seen through Deaf eyes. Booth became a respected senior statesman of the American Deaf community, and blended with his stories of the era's events are anecdotes and issues vital to Deaf people and their families. His story proves again that extraordinary people vary in many ways, but they often possess a common motive in acting to enhance their own communities.*

Order from:

Rochester Institute of Technology
Campus Connections Bookstore
48 Lomb Memorial Dr.
Rochester, NY 14623-5604
585-475-2504 (V), X7071 (TTY), X6499 (FAX)
jmdbkg@rit.edu
Approximate cost: $29.95
[http://bookstore.rit.edu](http://bookstore.rit.edu)

Gallaudet University Press
800 Florida Ave, NE
Washington, DC 20002
202.651.5488 (v/tty) / 202.651.5489 (fax)
valencia.simmons@gallaudet.edu
Approximate cost: $29.95
[http://gupress.gallaudet.edu](http://gupress.gallaudet.edu)

This book summarizes the century-long struggle of the American Deaf community to establish a technical college serving deaf students. Also included is a summary of the National Technical Institute for the Deaf's first 30 years. Photographs of faculty and students portray many aspects of the NTID story.

Order from:

Rochester Institute of Technology
Campus Connections Bookstore
48 Lomb Memorial Dr.
Rochester, NY 14623-5604
585-475-2504 (V), X7071 (TTY), X6499 (FAX)
jmdbkg@rit.edu
Approximate cost: $27.00
http://bookstore.rit.edu


This book tells how three men collaborated to solve the technical difficulties of developing a coupling device for TTYs that would translate sounds into discernible letters. With the help of an expanding corps of Deaf advocates, they successfully challenged AT&T and the Federal Communications Commission (FCC) to build a telephone system for deaf people that was available, affordable, portable, and fully accessible.

Order from:

Rochester Institute of Technology
Campus Connections Bookstore
48 Lomb Memorial Dr.
Rochester, NY 14623-5604
585-475-2504 (V), X7071 (TTY), X6499 (FAX)
jmdbkg@rit.edu
Approximate cost: $29.95
http://bookstore.rit.edu

Gallaudet University Press
800 Florida Ave, NE
Washington, DC 20002
202.651.5488 (v/tty) / 202.651.5489 (fax)
valencia.simmons@gallaudet.edu
Approximate cost: $29.95
http://gupress.gallaudet.edu


A wide range of international experts present a comprehensive and accessible overview of the diverse field of deaf studies, language, and education. Pairing practical information with detailed analyses of what works, why, and for whom, and banishing the paternalism once intrinsic of the field, the handbook consists of specially commissioned essays on topics such as language development, hearing and speech perception, education, literacy, cognition, and the complex cultural, social, and psychological issues associated with individuals who are deaf or hard of hearing.

Order from:

Oxford University Press, Inc.
200 Madison Avenue
New York, NY 10016
http://www.oup-usa.org/k681/index.html
Approximate cost: $85.00


This volume is a research-based framework for educating deaf students that considers the educational and research literature with an eye toward systematic inquiry and generality of findings. As far as the current state-of-the-art allows, the authors summarize what is known about educating deaf students and draw implications in a way that will be useful to teachers, parents, and future professionals. The book is written from a cognitive orientation on deaf children's development and a social constructivist view of their education. In such a cognitive orientation various aspects of linguistic, social, and academic growth are linked to various mental processes underlying learning and other behavior (e.g., social perspective, memory, problem solving, knowledge organization).

Order from:

Oxford University Press, Inc.
200 Madison Avenue
New York, NY 10016
http://www.oup-usa.org/k681/index.html
Approximate cost: $27.00


This book offers a comprehensive research-based guide to the questions, decisions, and challenges faced by parents and teachers of deaf children. (Endorsed by the American Society for Deaf Children.)

Included in these books is a collection of research-oriented chapters by internationally prominent researchers in deafness. Primary topics include social and cultural aspects of deafness, language and language development, reading, and cognition.

Order from:

Laurence Erlbaum and Associates
365 Broadway
Hillsdale, NJ 07642
Approximate cost: $39.95


Intended for researchers and graduate students, this volume provides a discussion of existing and potential evidence bearing on the relations between language and thought in deaf and hearing children. Proponents of the three primary theoretical perspectives on language development present their own research with regard to the development of deaf children and discuss each other’s positions.

Order from:

Oxford University Press, Inc.
200 Madison Avenue
New York, NY 10016
http://www.oup-usa.org/k681/index.html
Approximate cost: $19.95


This volume provides a comprehensive analysis of Deaf people as a culturally and linguistically distinct minority group within the American society. It presents an overview of mainstream research on bilingualism and biculturalism, followed by conceptual analyses and research which examine the impact of cultural and language diversity in educational and psychosocial experiences of Deaf people. The book should be appropriate for all professionals involved in Deaf education and in providing services for Deaf people, as well as mainstream professionals working in the areas of bilingualism, multicultural society, and minority education.

Order from:

any bookstore

OR

Cambridge University Press
110 Midland Avenue
Port Chester, NY 10573
Telephone 1-800-227-0247
Cost: $59.95 (hard cover); $19.95 (paperback)
Features

• 2,700 ASL signs. 2,000 of these signs are linked to one or more of 652 sentences showing how the signs are inflected in natural ASL sentences (except for some proper nouns, synonyms and other uninflcted signs). Many signs appear in multiple sentences illustrating different kinds of inflections.
• All signs and sentences are signed by Deaf native signers, and are presented in high quality QuickTime movies with Sorenson compression.
• Categories feature -- 1,000 of the 2,700 signs are grouped into 25 categories by meaning; Money Signs, Number Signs (divided into general numbers, age numbers, money numbers, etc.), Classifiers, Countries, States, Government, Socially Restricted, Substance Abuse, and others.
• Similar signs feature — signs that look alike are grouped together to make it easy to learn the differences between them
• There are various options for viewing the sentences: ASL first, English second; English first, ASL second; both simultaneously; and various default and replay options for order of presentation and signing speed.
• There are both print (CD booklet) and on-line Help files.
• There is an on-line text section that discusses both ASL inflection and ASL syntax, with video examples.
• Works on both Macintosh and Windows platforms.

To order:

Go to: http://www.ntid.rit.edu/dig/
Unit Price $50.00


This book discusses the psychosocial influences on technology use throughout the life-span.

Order from:

Rochester Institute of Technology
Campus Connections Bookstore
48 Lomb Memorial Dr.
Rochester, NY 14623-5604
585-475-2504 (V), X7071 (TTY), X6499 (FAX)
jmdbkg@rit.edu
Approximate cost: $24.95 (paperback), $32.95 (hardcover)

This series of captioned videotape programs offers a practical and comprehensive approach to all aspects of educational interpreting, emphasizing information and strategies that are necessary to provide deaf students in grades K-12 with optimal communication access to education. The videotapes include:

• Educational interpreters provides an introduction that covers interpreting in grades K-12; roles and responsibilities, qualifications, and professional ethics of interpreters.
• Working with educational interpreters covers strategies for classroom teachers and school personnel.
• Employing educational interpreters includes information about hiring, managing, and scheduling educational interpreters.
• Evaluating educational interpreting services covers strategies, resources, and existing evaluation models.
• Students working with educational interpreters has two parts: Part I, Strategies for young students, grades K-5, and Part II, Strategies for young students, grades 6-12.
• Educational interpreters: Advocacy information includes laws, consumer rights, and strategies for securing services.
• Community and postsecondary interpreters covers transitional information for older high school students: roles, laws, consumer rights, and strategies for securing services.

Each videotape is accompanied by a companion booklet that reviews issues in greater detail and offers tips, guidelines, and other valuable resource information.

For more information about the video program series, call NTID’s Department of Marketing Communications, Telephone 585-475-6906 (V/TTY).

Order from:

Rochester Institute of Technology
Campus Connections Bookstore
48 Lomb Memorial Dr.
Rochester, NY 14623-5604
585-475-2504 (V), X7071 (TTY), X6499 (FAX)
jmdbg@rit.edu
Approximate cost: $45.00/videotape, $8.00/booklet
http://bookstore.rit.edu
Interpreter discourse: English to ASL expansion / ASL to English compression.

When interpreting between American Sign Language and English, linguistic and cultural mediation is necessary in order to provide source and target message equivalence. One aspect of this mediation between ASL and English is the use of expansion and compression strategies. The use of these strategies allows interpreters to deliver both meaning and intention in the target language. This CD-ROM provides the theoretical foundation for the use of expansion and compression and provides practice opportunities for incorporating these strategies in ASL-to-English interpretation.

CD-ROM features:
• Printable articles that introduce the concepts of expansion and compression.
• Source language sentences and texts that allow for incorporating expansion or compression features into the target language.
• Model interpretations of source language sentences and texts.
• Printable transcripts of all spoken English texts are provided.

Order from:
Rochester Institute of Technology
Campus Connections Bookstore
48 Lomb Memorial Dr.
Rochester, NY 14623-5604
585-475-2504 (V), X7071 (TTY), X6499 (FAX)
jmdbg@rit.edu
Approximate cost: $20.00
http://bookstore.rit.edu


This six CD set is used to support the development of the nine different sub-skills addressed in a pre-interpreting course. These materials consist of twenty-five different presentations totaling over six hours of recorded discourse.

CD-ROMs feature:
• Visualization - Summarizing
• Shadowing - Paraphrasing
• Listening comprehension
• Structuring
• Dual Task
• Abstracting - Close

Order from:
Rochester Institute of Technology
Campus Connections Bookstore
48 Lomb Memorial Dr.
Rochester, NY 14623-5604
585-475-2504 (V), X7071 (TTY), X6499 (FAX)
jmdbg@rit.edu
Approximate cost: $32.00
http://bookstore.rit.edu

These materials provide useful information related to the prevention and management of symptoms of CTD. Occupational health and safety experts and professional sign language interpreters at Rochester Institute of Technology's National Technical Institute for the Deaf, developed these materials as a multifaceted program focused on the effects of various stressors on sign language interpreters and other professionals.

Topics include:
• Understanding CTD
• The CTD/Interpreter Connection
• Stress management – Pain management
• Self-assessment – Exercise
• Traversing the Health Care System
• Captioned videotape: Biomechanics of Interpreting

Order from:

Rochester Institute of Technology
Campus Connections Bookstore
48 Lomb Memorial Dr.
Rochester, NY 14623-5604
585-475-2504 (V), X7071 (TTY), X6499 (FAX)
jmdbkg@rit.edu
Approximate cost: $35 (manual); $60 (manual & videotape set); $30 (trainer's guide and overhead masters set)
http://bookstore.rit.edu


This CD is a must for ASL students. It contains approximately 1,850 signs linked with 3,500 English synonyms. It requires no installation. It will run on either PC or Mac computers.

• Adaptable to any ASL curriculum
• Provides practice for vocabulary recognition and expression
• Intended as a support tool for learning ASL in classes
• An excellent resource for school and community libraries

Order from:

Rochester Institute of Technology
Campus Connections Bookstore
48 Lomb Memorial Dr.
Rochester, NY 14623-5604
585-475-2504 (V), X7071 (TTY), X6499 (FAX)
jmdbkg@rit.edu
Approximate cost: $12.00
http://bookstore.rit.edu

People with hearing loss communicate in different ways. Some use speech or sign language only... or a combination of sign language, fingerspelling, and speech... or writing... or body language and facial expression. Whether one-to-one, in a group, through an interpreter, or on the telephone, this booklet provides valuable tips and timely strategies.

Order from:
Rochester Institute of Technology
Marketing Communications Department
National Technical Institute for the Deaf
52 Lomb Memorial Drive
Rochester, NY 14623-4504
585-475-6906 (voice/TTY); 585-475-5623 (fax)
ntidmc@rit.edu
Cost: $.40 each


This handy, 8-panel leaflet illustrates 100 basic ASL signs, the manual alphabet, and some numbers. Diagrams indicate important movements and facial expressions. Basic tips for communicating also are provided.

Order from:
Rochester Institute of Technology
Marketing Communications Department
National Technical Institute for the Deaf
52 Lomb Memorial Drive
Rochester, NY 14623-4504
585-475-6906 (voice/TTY); 585-475-5623 (fax)
ntidmc@rit.edu
Cost: $.25 each


Researchers at Rochester Institute of Technology's National Technical Institute for the Deaf developed C-Print to improve the classroom experience for students who are deaf or hard-of-hearing. As a communication access and support service option, C-Print can also effectively be used in meetings and workshops and with individuals with other disabilities.

For more information:
http://www.ntid.rit.edu/CPrint/
cprint@rit.edu
585-475-7557 (voice/TTY)
<table>
<thead>
<tr>
<th>Name</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albertini, J.</td>
<td>10, 15, 17, 22, 24, 29, 29, 55, 59</td>
</tr>
<tr>
<td>Berent, G.</td>
<td>11, 12, 17, 22, 24, 29, 29, 33, 48</td>
</tr>
<tr>
<td>Caccamise, F.</td>
<td>12, 23, 24, 44, 45, 46, 47, 55</td>
</tr>
<tr>
<td>Campbell, C.</td>
<td>17, 22, 29, 33, 44, 45, 46, 55</td>
</tr>
<tr>
<td>Carr, J.</td>
<td>15, 22, 24, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Clymer, E.</td>
<td>12, 34, 35, 36, 37, 38, 39, 41</td>
</tr>
<tr>
<td>DeCaro, J.</td>
<td>13, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>De Filippo, C.</td>
<td>14, 19, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Dowaliby, F.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Egelston-Dodd, J.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Elliot, L.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Emerton, G.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Finton, L.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Fischer, S.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Foster, S.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Frisina, R.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Gaustad, M.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Gustina, D.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Hoke, L.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Holcomb, B.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Holcomb, S.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Kelly, R.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Lang, H.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>LePoutre, D.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Long, G.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Lylak, E.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Marschark, M.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>MacLeod, J.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>McKee, B.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Mitchell, M.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Monikowski, C.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Mousley, K.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Mudgett-DeCaro, P.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Mumford, B.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Newell, W.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Parasnis, I.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Payne, J.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Peterson, R.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Poor, G.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Reeves, J.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Samar, V.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Scherer, M.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Schley, S.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Senoir, G.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Shannon, N.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Sims, D.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Smith, R.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Snell, K.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Stinson, M.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Toscano, R.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Wells, J.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Whitehead, B.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
<tr>
<td>Whitehead, R.</td>
<td>12, 17, 22, 29, 29, 33, 35, 36</td>
</tr>
</tbody>
</table>