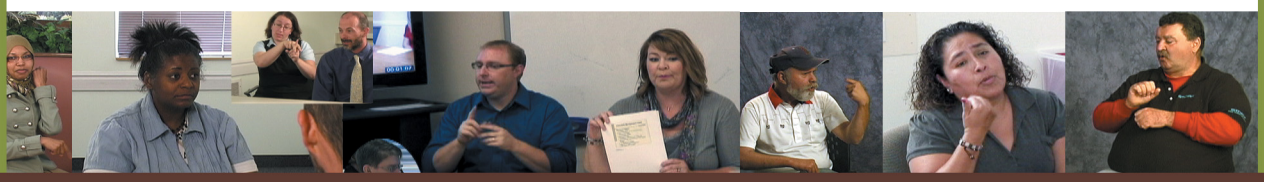
Interpreting in VR Settings: Literature Review

NCIEC
National Consortium of Interpreter Education Centers



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Project Summary and Acknowledgements

The mission of the National Consortium of Interpreter Education Centers (NCIEC) is to build and promote effective practices in the fields of interpreting and interpreter education. The NCIEC was formed as a vehicle for sharing knowledge, expertise, leadership, and fiscal resources among the member Centers and for establishing important partnerships with consumer, professional, and academic organizations and institutions. The involvement of consumers and vocational rehabilitation service providers in the development and implementation of all educational initiatives ensures that programming is grounded in the realities of everyday life.

This Literature Review, prepared by Dr. Linda Stauffer, CSC, OTC, on behalf of the NCIEC VR initiative workgroup, is one of the products of the 2010-2015 cycle. It is supported by an accompanying annotated bibliography of the literature reviewed here within. The citations noted in *red* within this document are those that are annotated in the accompanying bibliography.

Specialist competence in interpreting has been a topic of exploration by various workgroups within the National Consortium of Interpreter Education Centers (NCIEC) in recent years. The exploration has focused primarily on defining competencies of specialist practitioners and/or practice in specialized settings such as legal, medical/health care, and mental health. During the 2010-2015 cycle, the focus has been on interpreting in vocational rehabilitation settings.
A factor contributing to this exploration is the recognition that the standard of competent practice for this setting has yet to be defined. Therefore, designing training programs to increase the pool of qualified to interpret in this setting is difficult.

In an effort to better understand the nature of specialized competence needed to interpret in this setting, a work-team comprised of members of the National Consortium of Interpreter Education Centers (NCIEC) [1] was formed. The members of this workteam are Anna Witter-Merithew, Team Leader and Director of the MARIE Center, Trudy Schafer Project Coordinator for the NIEC, Lillian Garcia Peterkin, Outreach Specialist for the NIEC, and Pauline Annarino, Director of the WRIEC. These individuals have collaborated with experts in the field to conduct a review of the literature, define the competencies of interpreters in VR settings, explore best practices, and define training content, towards the goal of developing curriculum to prepare interpreter educators and practitioners for working in this setting

Acknowledgements

This initiative was launched by bringing together a panel of experts who participated in the Expert Think Tank on Interpreting in the VR Setting, held May 25-27, in Denver, Colorado. The goal of the Think Tank was to convene a group of experts to identify the skills, knowledge and attributes of interpreters working in the VR setting and to conceptualize a framework for harvesting additional expert opinion. Appreciation is extended to the following individuals who participated in and contributed to this event.

[1] The NCIEC is a collaboration of six university-based centers funded from 2010-2015 by the U.S. Department of Education RSA CFDA #84.160A and B, Training of Interpreters for Individuals Who Are Deaf and Individuals Who Are Deaf-Blind to address the national shortage of interpreters for deaf, DeafBlind and hard-of-hearing individuals.

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A special thanks is extended to Dr. Linda Stauffer who conducted the literature review and created the annotated bibliography that serve as foundational documents for this project.

In addition, a series of focus groups were conducted involving practitioners, consumers and VR personnel. Appreciation is extended to all the individuals who participated in the focus groups that were held in Atlanta, Georgia, Boston, Massachusetts, and by way of audio conferencing. Interpreters from a wide range of states participated, including Georgia, Kentucky, Mississippi, California, Ohio, Florida, Utah, Oregon, Massachusetts, Connecticut and Rhode Island.

And finally, sincere appreciation and gratitude is extended to all the other Directors and Principal Investigators who make up the NCIEC and administer one of the six (6) Centers—Ms. Pauline Annarino (WRIEC), Dr. Cheryl Davis (WRIEC), Ms. Cathy Cogen (NIEC), Dr. Dennis Cokely (NIEC), Ms. Diana Doucette (NURIEC), Ms. Bev Hollrah (GURIEC), Mr. Richard Laurion (CATIE), Dr. Laurie Swabey (CATIE), Ms. Anna Witter-Merithew (MARIE) and Dr. Leilani Johnson (MARIE). Without their leadership and fiscal support, this project would have been impossible.

Interpreting in Vocational Rehabilitation Settings
Table of Contents

Interpreting in Vocational Rehabilitation Settings

Introduction

The Rehabilitation Services Administration is the federal agency tasked to provide funding to state vocational rehabilitation (VR) agencies for the habilitation and rehabilitation of persons with disabilities. According to the Office of Special Education and Rehabilitation Services (OSERS):

> The Rehabilitation Services Administration (RSA) oversees grant programs that help individuals with physical or mental disabilities to obtain employment and live more independently through the provision of such supports as counseling, medical and psychological services, job training and other individualized services. RSA's major Title I formula grant program provides funds to state vocational rehabilitation (VR) agencies to provide employment-related services for individuals with disabilities, giving priority to individuals who are significantly disabled (U.S. Department of Education, OSERS, 2010, ¶ 1-2).

While funding is distributed from the federal level to the state level, client service provision is a state function.

National interest in the preparation and hiring of interpreters for federal agencies and others receiving federal funds can be traced to legislation in the early 1970s beginning with *Section 504 of the Rehabilitation Act of 1973, as amended 29 U.S.C. § 794* (U. S. Department of Justice, 2005). This law required that no otherwise qualified individual could be denied access to, or benefit of, entities receiving federal funds. Vocational Rehabilitation's interest in interpreters precedes federal legislation by a decade. In 1965, Public Law 89-333 known as the *Vocational Rehabilitation Act of 1965* was passed. This historic law authorized for the first time interpreting as a case service for deaf clients of VR (Hanson & Corthell, 1980). By 1978, RSA was funding five-year competitions for regional and national projects to increase the supply of interpreters for persons who are deaf, deaf-blind, or hard of hearing (Frishberg, 1986). This funding continues today.

Objective

The objective of this paper is to review the literature related to persons with hearing loss within the VR system and identify interpreter competencies deemed necessary for interpreting for a diverse VR client population. The review is organized into eight topics:

1. Demographic analysis of the population served by vocational rehabilitation
2. Description of the VR system related to persons who are deaf or hard of hearing
3. Essential skills knowledge and attitudes for interpreting for deaf, hard of hearing, and late deafened persons
4. Aptitude for interpreting

5. Curricula for preparation of interpreters for vocational rehabilitation settings
6. Interpreting in VR Settings – national needs assessments
7. Interpreting-specific issues related to consumers who are deaf with minimal language competency.
8. Issues in interpreting for the population of youth transitioning from school to work.

This review was conducted to examine relevant documents available either on-line using Academic Search Complete, Education Research Complete, Academic Search Elite, Professional Development Collection, SocINDEX with Full Text, PsycArticles, CINAHL with Full Text, PsycINFO, and thesis and dissertation databases. References were searched via Google and Google Scholar. Additionally, books, conference proceedings, Internet sources, and reference lists from pertinent professional journal articles were reviewed for further resources.

Demographic Analysis of the Population Served by Vocational Rehabilitation

Number of Persons who are Deaf and Hard of Hearing in the US

Current numbers of persons who are deaf or hard of hearing is hard to find. Gallaudet University routinely collects information on school age children who are deaf and hard of hearing. They do not collect information on the adult deaf population. Gallaudet does, however, provide information gleaned from various surveys to help answer the question*, "How many deaf people are there in the U.S?* From data collected 1997-2003, estimates were that 13% (38,225,590) of the total US population (204,043,000) had "hearing problems" with 35% (10,598,000) of working age between 18-64 years (Harrington, 2010, June).

Higher numbers were reported in 2006 with 18,365,800 deaf, late deafened and hard of hearing persons in the U.S. between the ages of 15-65 years (Schroedel, 2006). While it is not possible to get an exact number of working age persons who have hearing loss in the U.S., it can be stated with certainty that there are millions. Not all individuals will need or seek the services of VR, but many will.

Vocational Rehabilitation Funding and Numbers of Persons Served

During FY 2005, RSA spent a total of $1,751,507,455 on total services provided to individuals (U.S. Department of Education, 2007). These are the latest statistics posted to the RSA web site. While they are sub-categorized by disability, the amount of money spent represents a tremendous investment in preparing persons with disabilities for the workforce.

Employed persons with disabilities. Online disability statistics report that during the same year (2005) 26.5% of persons with disabilities between the ages of 18-64 were employed i.e., worked more than 52 hours during the 2005 calendar year (von Schrader, S., Erickson, W. A., Lee, C. G., 2010). The percentage drops to 25.2% for data reported in 2009. (Cornell University, 2010). While much time, effort, and financial resources are focused on preparing persons with disabilities for work, statistics indicate that only approximately one-fourth of these individuals of working age (18-64) are successfully employed.

Employed persons with hearing loss. For persons with hearing loss, the employment picture improves somewhat. According to Erickson and von Schrader (2010), an estimated 55.2% of non-institutionalized persons ages 16-64 with a hearing disability were employed in 2008. Hearing loss in the 2008 *American Community Survey* was self-reported by respondents who answered the question, *"Is this person deaf or does he/she have serious difficulty hearing?"* (von Schrader, S., Erickson, W. A., Lee, C. G., 2010, column 2).

In 2008, The Rehabilitation Research and Training Program on Persons who are Deaf or Hard of Hearing of the University of Arkansas published an updated edition of the Model State Plan for Deaf, Deaf-Blind, Hard of Hearing and Late Deafened Adults (Watson, D., Jennings, T., Tomlinson, P., Boone, S., & Anderson, G., 2008). Statistics from federal RSA-911 data are provided on the participation of persons with hearing loss in vocational rehabilitation. In 2006, 38,004 cases were closed for persons with hearing loss. Of those, 63.4% (24,088 cases) were closed with a successful employment outcome.

Previously, in 2003, there were 217,557 successful outcomes for individuals with disabilities served by VR. Of that number 23,455 success outcomes were for persons who were deaf or hard of hearing (10.8% of total successful outcomes). Of the total number of deaf/hard of hearing successful closures, there were 6,898 (29.4%) successful outcomes for individuals who were deaf, and 16, 557 (70.6%) successful outcomes for individuals who were hard of hearing. (Watson, Jennings, Tomlinson, Boone, & Anderson, 2008, p. 15).

Description of the VR System Related to Deaf, Hard of Hearing

The Vocational Rehabilitation process for deaf and hard of hearing persons, as with all persons with disabilities, follows similar structures in each state using federal case status codes. Eligibility for VR services across all states include 1) must have a verifiable disability, 2) the disability must present an impediment to employment, and 3) there must be a presumed benefit from receiving VR services. Some states may impose additional requirements such as a financial needs test or an Order of Selection. When there are insufficient funds to serve all consumers who are eligible, an Order of Selection will describe the order in which consumers are to receive services; generally "consumers with the most significant disabilities are served first" (Cornell University, 2004, p. 8).

Client cases are followed from referral to termination following federal status codes. The VR process Status Codes are:

Referral, Evaluation and Eligibility Determination

Status 00 — Referral. The is the beginning of the process at which time a person is referred to VR. Information is collected such as name, address, etc.

Status 02 — Application Process. This stage is for eligibility determination and includes medical evaluation to determine disability, and vocational evaluation including

interests, aptitude, academic achievement, psychological and other applicable evaluations.

Status 02 Outcomes

Status 04 Eligibility Wait List. The client meets eligibility but does not meet the agency's order of selection priorities. The client is placed on a waiting list for services until funds are available to provide services.

Status 06 Extended Evaluation/Trial Work Experience. This step may not always be necessary, but can include communication skills training, personal and social adjustment, remedial education, and further VR evaluation. The VR counselor may not be certain that the client can benefit from VR services; therefore, the person may be placed in a trial work experience for up to 18 months to determine that there is sufficient evidence to believe the client will benefit from VR services.

Status 08 Case Closed from Applicant Status, Referral, and Extended Evaluation Statuses. The case is closed if the client does not meet eligibility requirement or withdraws from eligibility.

Certification of Eligibility

Status 10 Eligibility - Accepted and Individual Plan of Employment (IPE) Development. At this stage, eligibility certification is complete. Documentation verifies the three basic requirements of all VR: verifiable disability, limitations to work caused by the disability, expectations of success with VR services. An Individual Plan of Employment is developed including information on potential job areas, short and long term goals, services to be provided, and evaluation method.

Vocational Rehabilitation Process

Status 12 IPE Completed. The IPE is completed upon determination of eligibility. No services are provided in this status.

Status 14 Counseling and Guidance. When there is need, clients receive intensive counseling and guidance beyond that which the VR counselor routinely provides.

Status 16 Physical and Mental Restoration. Services in this category may include medical or surgical, psychiatric, therapeutic, convalescent care, or provision of prostheses.

Status 18 Training. The VR client may receive college education, vocational training, or on the job training. Support Services such as personal/social adjustment training, note takers, tutoring, interpreters, or a personal assistant may be provided.

Status 20 Ready for Placement. Training/education and services are completed and the client is ready for work. The VR counselor prepares the client for job interviews.

Status 22 Placement in Employment. The client is placed on the job with any needed support services such as job coach, interpreters, etc. VR counselor works with the employer to explain the needs of the deaf/hard of hearing employee.

Service Interruption

Status 24 Case Services Interrupted. This status is for any disruption in case services. When a disruption occurs, the VR counselor conducts an interview and determines the cause. The client either is returned to work or the case closed.

Case Closure

Status 26 Case Closed as Successfully Rehabilitated. The client has been successfully working on the job for 60-90 days and the IPE goals are achieved.

Status 28 Case Closed as Unsuccessfully Rehabilitated. A client has an IPE but was not able to achieve the VR goals after receiving service(s).

Status 30 Case Closed before the IPE is written but after the client has been accepted by VR. In this case, circumstances prevent a client from participating in the VR process prior to the development of and IPE and before services could be provided.

Status 32 Post-Employment Status. Clients who have previously attained a successful Status 26 closure and are now receiving services to maintain employment.

Status 34 Closed from Post Employment Services. Post employment services (status 32) is concluded.

Status 38 Closed from Waiting List. The case is closed from the order of selection waiting list (status 04).

(Northwestern Connecticut Community-Technical College and The University of Tennessee, 1995; Northup, 1988; North Carolina Department of Health and Human Services, 2010; Watson, D., Jennings, T., Tomlinson, P, Boone, S. & Anderson, G., 2008; The Vocational Rehabilitation Process (2003).

While there may be slight variations by state, the above federal codes are represented by a diagram from the North Caroline Department of Health and Human Services (2010) (see Appendix A).

In 2008, the Council of State Administrators of Vocational Rehabilitation (CSAVR), Standing Committee on Services for Individuals who are Deaf, Deaf-Blind, Hard of Hearing or Late-Deafened together with the University of Arkansas Rehabilitation Research and Training Center prepared a fifth edition of the Model State Plan for Rehabilitation of Persons who are Deaf, Deaf-Blind, Hard of Hearing, or Late-Deafened Adults (Watson, D., Jennings, T., Tomlinson, P., Boone, S., & Anderson, G., 2008). This document addresses strategies for serving deaf populations and include updates in legislation, technology and service provision. It is intended as a resource to state VR agencies serving persons with all types of hearing loss. Included is a description of model VR services throughout the VR process. For example impediments to employment should be described in functional, not auditory terms (p. 21) and deaf and hard of hearing consumers' communication needs should classify them as meeting the definition of "individuals with severe disabilities" for order of selection (p. 22). IPE planning sessions must be conducted in the consumer's preferred language (p. 25) and all information should be accessible. The Model State Plan also addresses the needs of persons who are deaf with minimal language competencies and services for those transitioning from school to work. These issues will be discussed elsewhere in this document.

Interpreting for Deaf, Hard of Hearing, and Late Deafened Persons
Essential Skills Knowledge and Attitudes

As stated previously, the *Vocational Rehabilitation Act of 1965* (Public Law 89-333) authorized for the first time interpreting as a case service for deaf consumers (Hanson & Corthell, 1980). *The Rehabilitation Act of 1973* greatly increased the demand for interpreters and federal interest in the preparation of interpreters. Closely following, *P.L. 94-142, the Education of All Handicapped Children's Act,* informally called the "mainstreaming law" accelerated the demand for qualified interpreters. By 1990, *The Americans with Disability Act* (ADA) required all segments of society serving the public to be accessible again increasing the need for interpreters.

Since the establishment of the first postsecondary interpreter education program the profession of teaching sign and oral interpreting in the U.S. has progressed through several major areas of focus. While not specifically defined by decade, these areas of focus can generally be identified in ten-year spans. If the 1960's were the birth of the profession, then the 1970s saw the beginning of certification testing and the post-secondary offering of interpreter education. The 1980s addressed interpreter education curriculum while the 1990s shifted to identifying interpreter standards. By 2000 interpreter education focused on evidenced based effective practices and national interpreter education program accreditation.

1970s - growth of interpreter education programs. Due to a February late-night, pool side meeting in Tucson, Arizona of six individuals (Jerome Schein, Lottie Reikof, Ray Jones, Bill Woodrick, Ron Lafayette, and Robert Lauritsen) attending a Professional Rehabilitation Workers with Deaf Adults (PRWD) conference, the idea of a national effort to train interpreters was born. (Stauffer, 2007). After meeting with Jim Buress and Boyce Williams of Rehabilitation Services Administration, the idea was developed as a proposal to RSA. The proposal was eventually funded in 1974 RSA AS the National Interpreter Training Consortium (NITC) with six postsecondary interpreter programs (Frishburg, 1986).

RSA took a further leap in 1980 when it began funding regional and national interpreter education projects in response to the 1978 Amendments to the *Rehabilitation Act of 1973* (*P.L. 95-602, [Sec 304(d)(1)] Comprehensive Services, and Developmental Disabilities Amendments*) (Anderson & Stauffer, 1990; Public Law 95-602 95th Congress, 1978). The 1978 Amendments included a call to establish competency standards for post-secondary interpreter education program graduates, and authorized federal funds for interpreter training programs (Anderson & Stauffer, 1990). This funding continues to today with the current five-year cycle funding six projects as the Consortium of Interpreter Education Centers (NCIEC) from 2010-2015.

Interpreter education programs in public and private postsecondary institutions continued to increase. In a 2008 study of post-secondary interpreter education programs conducted by the National Interpreter Education Center (NIEC) 71 of 91 responding programs offered an associate degrees, 27 of 91 offer a bachelor's degree, and four offered a masters' degree. Some programs offered more than one degree such as an AA/BA or a BS/MS (Cokely & Winston, 2008).

By 2010, the NCIEC AA~BA Partnership Workteam identified approximately 140 post-secondary institutions across the US and Puerto Rico offering interpreter education (Stauffer, Annarino, & Lawrence, 2008). In a survey of these programs, 92 programs responded (66% response rate) with 64 (70%) programs offering an associate degree in interpreter education and 28 (30%) offering a baccalaureate degree in interpreter education.

Early interpreter education curriculum. One of the earliest publications to address interpreter education was published by the Deafness Research and Training Center at NYU (Sternberg, M., Tipton, C. & Schein, J., 1973). This curriculum, a culmination of a series of workshops meeting in 1972, consisted of 15 sections in outline form to be used individually or as part of a year-long course. The first part of the curriculum focused on knowledge acquisition for the student interpreter such as an orientation to deafness and interpreting, ethical behaviors, interpreter-client relationships, linguistics, the physical setting and compensation. The second part of the curriculum focused on specific interpreter settings such as educational, mental health, medical, social work, legal, religious and vocational rehabilitation.

Six years later, a second curriculum addressing skills and knowledge for interpreter education programs (formerly called interpreter training programs) was published by the National Academy of Gallaudet College (Yoken, 1979). This document summarizes the recommendations of a three-day meeting in June 1979 of 47 invited interpreter trainers. Interpreting competency courses included:

1. Expressive and voice transliterating and interpreting for deaf people who use American Sign Language, manually coded English, or oral communication systems;
2. Deaf-blind people; and those with minimal language skills.
3. Interpreting in legal, medical, educational and formal settings;
4. Mime;
5. Simultaneous communication
6. Adjunct topics: Psychosocial orientation to deafness, history of the field of deafness, linguistics, public speaking, speech, audiology, physiological aspects of deafness, human relations and community service.

It was noted in the work that many of the topics needed the development of training materials.

1980s - beginning of curriculum development and sharing. During the 1980s with the growth of interpreter education programs and the funding of in-service interpreter workshops by RSA regional projects, interpreter program curricula began to be written and disseminated. One example is the 8-volume University Course and Workshop Curriculum Guides for Interpreter Trainers published by the RSA Region VI Interpreter Training Project, 1987-1990 (Taff-Watson, M. & Northup, B., 1987-1990; Taff-Watson, M. and Stauffer, L., 1987-1990). These curricula were predominantly based on educator and practitioner practice and experience. Helpful at the time, this sharing of curricula and course outlines illuminated interpreter education course content. During this time, there was neither a nationally agreed-upon set of standards, nor a body of research to define and support effective practices in interpreter education. Over time, it became evident that there was a "readiness to work gap" between the time students graduated from interpreter education programs and when they were ready to pass national credentialing tests such as the RID certification tests (Patrie, 1995).

Twenty years later curricula were still neither standardized nor widely published. A 2000 review of interpreter program curricula was conducted as part of a national study investigating the teaching of transliteration (Stauffer & Viera, 2000). Only four interpreter programs with published curricula were identified. They were:

1. *University of New Brunswick Sign Language Interpreter Training Curriculum* (Baker-Shenk, Bienvenu, Colonomos, Cokely, Kanda, Neumann-Solow, & Witter-Merithew, 1988).

2. *American Sign Language-English Interpreting Certificate Program at Northeastern University* in Boston, MA (Resnick & Hoza, 1990).

3. *Master of Arts in Interpreting: Curriculum and Evaluation Procedure from Gallaudet University* in Washington, D.C (Johnson, Patrie, & Roy, 1991).

4. *University of Arkansas at Little Rock's Interpreter Education Degree Programs Curricula Guide to Interpretation: ASL - English* (Taff-Watson & Shaw, 1999)

It must be noted that the Internet was still very new at this time and not in widespread use. Each program had a different outcome and each curriculum was designed according to the program's philosophy and the time allotted by degree. For example:

> Of the four curricula reviewed, three addressed transliteration skills development but in very different ways. One viewed transliteration as specialization beyond the core curricula. One addressed transliteration skills development in an incrementally tiered approach. One curricula, at the master's level, included transliteration skill development as part if its coursework (Stauffer & Viera, 2000, p. 73).

Now in 2011 there is still no national, standardized curriculum for the preparation of interpreters for persons who are deaf, hard of hearing or deaf-blind. [Texas has initiated a standardized numbering system for two-year interpreting degree through Workforce Development (personal communication, Lucy James, June 26, 2011); however, each program determined the content of the courses.

1990s - interpreter standards development. By the1990s, the federal government, as well as the interpreter and interpreter education professions, began to consider standards for interpreter education. Standards define what interpreters should know and be able to do. This is turn informs testing and curriculum development. In 1990, the Rehabilitation Research and Training Center on Deafness/Hearing Impairment (RT-31) was funded by the National Institute on Disability and Rehabilitation Research (NIDRR) and tasked with developing guidelines to the Rehabilitation Services Administration "for the development of standards for monitoring the award and evaluation of federally-funded interpreter training programs" (Anderson & Stauffer, 1990, p. viii). The study was conducted in three parts:

1. *A national survey of interpreter training programs* was conducted via a 16-item questionnaire seeking information on students, faculty, and curricular characteristics. The questionnaire was sent to 61 identified interpreter training programs with 51 responding (84% response rate).

2. *A national opinion sur*vey was conducted of interpreter educators, interpreter service providers, consumers of interpreting services, representatives and members of various professional organizations, and Board members of national organizations. The national opinion survey was a 71-items questionnaire asking the respondents to rank six general categories of interpreting competencies (determined from an extensive review of the literature) and at what level of training (pre-service or in-service) these competencies should be acquired. The general competency categories were:
   a. professional behavior,
   b. cultural aspects,
   c. communication modalities,
   d. interpreting/ transliterating skills,
   e. assessment skills, and
   f. consumer relations.

   The questionnaire was sent to 503 individuals of whom 403 responded (response rate of 79%). Results indicated a ranking of importance of the six competency categories from most "1" important to "6" least important were:
   a. interpreting/transliteration,
   b. professional behavior,
   c. communication modalities,
   d. cultural aspects,
   e. consumer relations, and
   f. assessment skills.

Each category was sub-divided into component skills and ranked for training level (pre-service or in-service). For a complete review of the findings, see Anderson & Stauffer, 1990.

3. *A Prime Study* Group was convened to review the findings of the two surveys and to assist in the development of descriptive characteristics and standards to assist RSA and other federal agencies to identify exemplary interpreter training programs. Recommendations were developed around interpreter training programs, interpreter competencies, and proposed standards for program performance.

On November 1, 1989, Conference of Interpreter Trainers (CIT) and the Registry of Interpreters for the Deaf (CIT/RID) Joint Committee on Program Endorsement officially began their work with funding from a two-year grant from Funds for the Improvement of Postsecondary Education (FIPSE) of $30,640. The committee's task was to implement the national Endorsement System for Interpreter Preparation Programs (FIPSE Grant Awarded, 1989). Five programs pilot-tested the endorsement system (Patrie, 1991a). By October 1991 as the FIPSE grant was ending, it was determined that the endorsement system would be revised and proposed for program self-study, rather than proposed as a program rating system (Patrie, 1991b).

In 1994, the CIT convention membership, and later the Board of Directors, endorsed the *National Interpreter Education Standards* (Winston, 1995). These standards created for the first time a shared vision of interpreter education.

2000s – Interpreter education accreditation and competency- based practices In 2006, accreditation of interpreter education programs was inaugurated through the Commission on Collegiate Interpreter Education (CCIE). The CCIE was established as a separate accrediting body with standards an outgrowth of the former CIT national standards. As such,

> "The Commission on Collegiate Interpreter Education Standards (CCIE Standards) identifies knowledge, skills, and perspectives students need to gain in order to enter the field of professional interpreting. The Standards give students, faculty, curriculum developers, administrators, employers, and consumers a common set of expectations about what basic knowledge and competencies interpreting students should acquire" (Commission on Collegiate Interpreter Education, 2010, p. 1.)

In order for programs to be accredited, they must meet each of six standards consisting of 106 sub-standards. The six overarching standards address:

1. Institutional organization and administration
2. Resources – financial and facility
3. Students
4. Faculty and staff
5. Curriculum, and
6. Outcomes, assessment and evaluations.

To date, seven bachelor degree programs and two associate degree programs have been accredited (Commission on Collegiate Interpreter Education, 2011).

In 2005 RSA again funded Interpreter Education Centers to increase the quantity and quality of interpreters in the U.S. This cycle presented a new structure whereby five regional centers (instead of ten) and one national center were funded with emphasis on center collaboration with national center over-site responsibilities. The Centers partnered as work teams focusing on identifying effective practices in interpreter education. A variety of products were developed supported by literature reviews, expert focus groups, stakeholder meetings, and consumer participation. It became apparent that these products represented best practices in the field, and that additional time was needed to test the effectiveness of these products.

Also in 2005, Witter-Merithew and Johnson published a monograph reporting the results of an *Entry-to-Practice Competencies Project*. This project was funded by the US Department of Education, Office of Special Education and Rehabilitation Services (OSERS) through a Grant of National Significance awarded by Rehabilitation Services Administration. The resulting monograph reports the conversations of 400 stakeholders including deaf consumers, interpreting students and educators, interpreters, employers, and policy-makers focused on entry-to-practice competencies. In addition to the above, 34 competencies are presented under five domains for entry-to-practice:

1. theory and knowledge,
2. human relations,
3. language skills,
4. Interpreting skills, and
5. professional competencies

(Witter-Merithew & Johnson, 2005).

By 2008, competency based outcomes were being proposed for measuring student learning of ASL. Kurz and Taylor (2008) published measurable outcomes for pre-service ASL, levels 1-4 based on the American Council on the Teaching of Foreign Languages (ACTFL) 5 "Cs": *Communication, Cultures, Connections, Comparisons, and Communities*. These Learning Outcomes were developed as a 2003-2008 project of the National Technical Institute for the Deaf, Rochester Institute of Technology and Monroe #1 Board of Cooperative Education Services in Rochester in partnership with the New York State Education Department, Vocational and Educational Services for Individuals with Disabilities.

Identifying Interpreter Aptitude

Researchers have begun to explore the concept of identifying *aptitude* for learning and interpreting a signed language. An increasing number of students are studying ASL at the postsecondary level (Quinto-Pozos, 2005). Despite increased attention to curricula and methodology, interpreter programs still encounter dilemmas with students who are slow to learn the language, or drop out entirely. While some performance predictors are being explored, neither a set of qualities or characteristics of successful ASL/English interpreters, nor foundational aptitudes have yet been identified (Seal, 2004: Macnamara, 2008-2009).

Second Language Aptitude. Research on second language learning has identified influential psychological factors such as *motivation*, *self-efficacy*, and *language anxiety* (Onwuegbuzie et. al., 2001). Other studies suggest that second language learning is affected by degree of exposure to the culture, language learning age, motivation, fear of failure, attitude biases, and L1 competency prior to L2 learning (Bialystok & Hakuta, 1994; Clément, Dörrnyei, & Noels 1994; Gan, Huphreys, & Hamp-Lyons, 2004; Zhongganggao, 2001; Sawyer & Ranta, 2001; Sparks, Patton, Ganschow, & Humback, 2009).

ASL/English Interpreting Aptitude: Some of the earliest research on ASL/English interpreting aptitude was conducted by Schein (1974) who investigated personality characteristics as a predictor of interpreter success. He reported four characteristics with strong correlation to skill:

1. desire to be the center of attention,
2. not overly anxious,
3. does not seeks sympathy for self, and
4. is not rigid.

Seal (2004) reported that *abstract reasoning* tested high in skilled interpreters. The *ability to cope, free from intimidation, assertive and self-confident* were related to sign language interpreting skill achievement (Gomez, Molina, Benitez, and Santiago, 2007). Bontempo (2008) reported that *goal orientation, self-efficacy and emotional stability* were integral to interpreter competency. Stauffer (2010) investigated *visualization ability* as an aptitude for interpreting, finding that credentialed interpreters scored higher on self-report measures of visual creation and manipulation ability than beginning sign language interpreters thus hypothesizing that *ability to visualize clearly* may be a foundational aptitude for interpreting. Another study by Stauffer and Shaw (2006) reported that both spoken and ASL interpreters considered *patience* to be an important personality trait of interpreters.

Still other researchers have investigated a variety of skills as aptitude for interpreting. The following factors have been reported as important: *processing motion, faces and imagery as well as mental rotation* (Emmorey, Kosslyn, & Bellugi, 1993); *fingerspelling* (Rudser & Strong, 1986); *preexisting ability to set up space with gestures* (Taub, Galvan, Piñar, & Mather, 2006); and *spatial tasks* (Talbot & Haude, 1993). Dr. Chris Stone is currently conducting a longitudinal study of language and modality aptitude in sign language interpreters in Britain. (ERSC Deafness Cognition and Language Research Centre, n.d.).

The first international conference on spoken and sign language interpreter aptitude and admissions testing was held for two-days in 2009 at the Lessius University College in Antwerp, Belgium. This conference was held in response to the recognition that 75% of applicants to conference interpreting students are rejected (Lessius University College and University of North Florida, 2009). An international host of researchers presented potential predictors of interpreter competence including *emotional stability*, *domain-general cognitive abilities*, *motivational contributors, phraseological competence*, and *ability to complete Cloze tests*. The second international conference will take place in 2012 in the U.S (personal correspondence with Dr. Sherry Shaw, July 28, 2011).

It is possible that when dispositions and abilities that define aptitude for learning a signed language are identified, that admissions processes, curriculum development, and classroom instruction will be integrated. Additionally, the graduation success rate and satisfaction of interpreters in the field may be increased when suitable students are identified, recruited and admitted into interpreter education programs.

Curricula for Preparation of Interpreters for Vocational Rehabilitation Settings

By the late 1970s, federal disability legislation was creating a rising demand for sign language interpreters. Two-year interpreter education programs were becoming more prevalent. Federal legislation was also focusing on interpreter education:

> "The National Interpreter Training Consortium (1973-1978) was the first federally funded program designed to provide training to interpreters for the hearing impaired. More recently funds have been made available through P.L. 95-602 Section 304, of the Rehabilitation Amendments of 1978, to establish ten regional interpreter training programs…to provide workshops and seminars throughout their region for the purpose of training and upgrading the skills of interpreters" (Siple, 1982, p. 1).

By 1982, there were 53 interpreter preparation programs in 31 states and the District of Columbia. In 1990, CIT published information on 64 interpreter preparation programs (Stauffer & Brandwein, 1990). There were, however, no standardized curricula for the preparation of interpreters, and few published curricula to prepare interpreters for vocational rehabilitation settings.

Interpreter Training: A Curriculum Guide. Sternberg, et. al. (1973) was one of the first to develop a curriculum guide for the training of interpreters. This curriculum includes 15 sections to be taught individually, or together over a one-year period. The curriculum included the use of the text, Interpreting for Deaf People, outline of a course of study, "…ethical considerations, interpreter-client relationships, linguistics, physical setting, compensation, oral interpreting, reverse interpreting, and deaf blind interpreting…interpretation in specific settings including the educational, mental health, medical, social work, vocational rehabilitation, legal and religious settings" (p. 1).

Chapter XII consisted of a four-page chapter with information on the rehabilitation processes, personal qualities for successful interpreting in VR settings, relationship between the interpreter-counselor and interpreter-client, the physical setting, ethics and linguistics and compensation. No interpreter competencies are addressed; however, personal qualities that make for successful interpreting in VR settings included "objectivity, reasonably high intelligence, maturity, resourcefulness, good mental health, and flexibility/adaptability" (p. 39).

Introduction to Interpreting for Interpreters/Transliterators, Hearing Impaired Consumers, Hearing Consumers. In 1980, Caccamise, Dirst, DeVries, Heil, Kirchner, C., Kirchner, S., Rinaldi, & Stangarone, edited a book with three stated goals: "(1) to provide an introductory text for interpreter trainees; (2) provide a manual for consumers of interpreting

services; and (3) to provide a reference manual for interpreters" (p. 1). Caccamise, et. al. (1980) combined information from other contributors in this book along with Yoken's (1979) recommended interpreting competency topics and adjunct topics into "*knowledge* and *skill* content areas for interpreter training programs" (Caccamise, et. al., 1980, p. 91) (see Appendix B). The list of *skills* includes "interpreting in different settings" such as Vocational Rehabilitation. There is no expansion to curricular content for this skill set.

Interpreting in the Rehabilitation Setting Workshop. In 1987, Barbara Northup, a former VR counselor with deaf clients and an instructor in the Interpreter Education Program at the University of Arkansas at Little Rock (UALR) developed an in-service workshop curriculum entitled "Interpreting in the Rehabilitation Setting." Topics included: 1) overview of deafness and communication modalities, 2) historical perspectives of the Deaf community and interpreting, 3) the rehabilitation process, 4) roles and responsibilities [of interpreters], 5) ethical behavior, 6) expressive and receptive fingerspelling, 7) interpreting, 8) sign to voice interpreting, 9) interpreting for the client who is MLS, and 10) interpreting for the client who is deaf-blind (Northup, 1987).

From 1985-1989, the University of Arkansas at Little Rock, under a grant from RSA Region VI Interpreter Training Project, published a series of university interpreter education curricula and interpreter trainer workshop curricula. "Interpreting in the Rehabilitation Setting" was published under the workshop curricula series (Northup, 1988). This 70-hour workshop curriculum addressed *knowledge* and *skill development* domains. The *knowledge* component addressed rehabilitation issues such as: interpreter, counselor and client roles and responsibilities; the rehabilitation process; rehabilitation terminology; ethics; current issues for vocational rehabilitation interpreters; and dual roles. *Skills development* focused on fingerspelling and numbers, medical terminology, interpreting vs. transliterating, effective listening, non-manual behaviors, ASL idiomatic expressions, vocal production, sign-to-voice and voice-to-sign skills. *Other* topics addressed interpreting for unique populations such as persons with minimal language skills and clients who are deaf-blind. The curriculum included role-play, guest speakers, panel, discussion, and videotapes.

The Professional Development Endorsement System (PEDS) – Interpreting in Rehabilitation Settings. Under the RSA 1990-1995 grant funding cycle of regional and national interpreter education projects, Northwestern Connecticut Community-Technical College and the University of Tennessee (1995) published the national *Professional Development Endorsement System (PDES)*. The PDES mission was:

> "…to provide a systematic, practical approach to the study of the theoretical foundations and technical skills needed to interpret in educational and/or rehabilitation settings. It is designed as an interim continuing education system for those who have graduated from two year interpreter training programs and are already employed as interpreters, but who have had little or not specialized course work in educational or rehabilitation interpreting" (p. 2).

Three endorsement areas were provided, two for educational interpreters, and one for interpreters in rehabilitation settings. Each endorsement area included pre- and post-tests, theory modules, and skill development modules. The Rehabilitation endorsement area included five modules:

1. *Introduction to the Rehabilitation Process:* This module provides an overview of the rehabilitation setting including terminology, the rehabilitation process, various rehabilitation professional roles, legislation and roles and responsibilities of rehabilitation interpreters.

2. *Communication and Training in Rehabilitation Settings:* This module provides an overview of the VR process including case status, VR evaluation, IWRP, job placement and case studies.

3. *Interpreting in Rehabilitation Settings I:* This module focuses on interpreting between rehabilitation personnel and consumers including intake interviews, medical and psychological evaluations, counseling, and ethics. Lab activities focus on practicing simulated or videotaped events.

4. *Interpreting in Rehabilitation Settings II:* This module continues lab practice focusing on vocational training programs, college courses, medical services, counseling and therapy and job training.

5. *Internship: Interpreting in Rehabilitation Settings:* This module is designed for interns in rehabilitation agencies to interpret under the supervision of an experienced interpreter.

While the PDES was the first national effort to develop in-depth curriculum for the preparation of interpreters for rehabilitation settings, it is a product of its time. That is, the curriculum is knowledge based, not competency based. Skill development consists of practice using videotapes that include VR settings and topics, but neither descriptions nor standard of competency are included to help interpreters know if they have met the goals of the modules. Pre- and post-tests are written with no skill component. Pre-existing skill is assumed by targeting the endorsement system to working interpreters via in-service training opportunities and a supervised internship.

Interpreting In VR Settings - National Needs Assessments

Four recent national needs assessments report on the current status of interpreting needs and practices within vocational rehabilitation. These four needs assessments surveyed interpreters working in vocational rehabilitation settings, VR counselors, and state coordinators of the deaf (SCD).

1. NCIEC Vocational Rehabilitation Interpreter Practitioner Interview Findings (Winston, 2010)
2. NCIEC Vocational Rehabilitation Needs Assessment Final Report (Cokely & Winston, 2009).

3. NCIEC Vocational Rehabilitation – Needs Assessment Synthesis Analysis (Winston & Dahms, 2010).
4. Survey of State Staffing Patterns, Issues, CSPD, and Related Outcomes for Consumers who are Deaf, Deaf-blind, Hard of Hearing & Late Deafened (Stauffer & Boone, 2006).

NCIEC Vocational Rehabilitation Interpreter Practitioner Interview Findings *(Winston, 2010).* As part of a national initiative from RSA, the National Interpreter Education Center (NIEC) conducted numerous needs assessments related to the field of interpreting. Data on 18 interpreters is provided. Thirteen of the interpreters were VR agency employees, and five were contract interpreters. Interpreters provide services for both VR consumers and for deaf rehabilitation counselors. Interpreters provide services to varied sub-groups of consumers.

> "The sub-groups with the highest mean ratings are: Deaf consumers; deaf/hard of hearing consumers with little or no work history; low-functioning deaf/hard of hearing consumers; deaf/hard of hearing consumers with limited English, and racial/ethnic minority deaf/hard of hearing consumers" (Winston, 2010, p. 7).

The most common languages interpreted were ASL/spoken English, but some reported using other language systems such as Signed English and Oral Transliteration. The most common VR setting in which interpreters worked was employment placement settings followed closely by postsecondary/vocational and employment preparation. The settings that were reported with the least amount of interpreting included independent living, K-12 transition and legal settings. When asked about training needs, interpreters responded that their greatest needs were in the areas of interpreting for low functioning deaf (LFD) consumers, mentoring, ethical training and interpreting for diverse populations. Other settings where training needs was reported included interpreting in employment related settings, mental health, domestic violence, training for VR counselors who work with interpreters and for deaf VR counselors who work with hearing consumers. The three areas with the lowest need included basic terminology related to VR service delivery, introductory training to the role and mission of VR, and interpreting in legal settings.

NCIEC Vocational Rehabilitation Needs Assessment Final Report (Cokely & Winston, 2009). This document reports the results of a national survey of State Coordinators of the Deaf (SCD). These individuals are charged with oversight and coordination of services to deaf and hard of hearing consumers of VR services. The SCDs reported a wide range of settings in which interpreting services were needed. The highest rated needs were for postsecondary/vocational settings, medical, employment placement and legal settings. The lowest settings were intake and eligibility determination, independent living and K-12 transition –related settings.

Regarding the extent of need for interpreter services met by state VR Agencies, the highest sub-settings were career assessment, employment placement and intake and eligibility determination. The areas with the most unmet needs were K-12 transition-related, independent living and legal settings. SCDs reported that between 65-88% of interpreting services were provided by qualified interpreters. Medical, mental health, and legal settings reported the lowest number of qualified interpreters provided. Only three percent (1 of 34 agencies) utilizes full-

time staff interpreters. The others use a combination of part-time contract interpreters or a mixture of staff and contract interpreters.

VR Agencies are successful in finding part time contract interpreters only 61% of the time with 82% reporting that interpreters are less available now than five years ago. Clearly the interpreter shortage is not receding. Regarding training, SCDs reported that the greatest needs were a) to provide mentoring to interpreters b) core operational concepts, VR mission and basic VR terminology, c) interpreting in employment related settings, and d) training for VR staff who work with interpreters (85%). The lowest identified need was legal (71%). State agencies are reporting use of VRS (70%) for both internal VR agency staff and consumers (50%). Only 15% are using Video Remote Interpreting Services (VRI).

NCIEC Vocational Rehabilitation – Needs Assessment Synthesis Analysis (Winston & Dahms, 2010). This document was not reporting on a needs survey; but instead, synthesized information regarding interpreting in vocational rehabilitation settings from numerous needs assessments including SCDs, consumers, and interpreters. Most states do not require interpreter licensure. There is wide variation among agencies regarding the requirement of interpreter credentials with some requiring national certification and some requiring state credentials. Few have any educational requirement with fewer still requiring a bachelor's degree. Most consumers prefer ASL/English interpretation. Those with higher education often preferred signed English/spoken English. Little preference was stated for Oral Transliteration or Cued Transliteration.

The synthesis report indicated that the VR consumer profile is changing. Today VR consumers often have unique characteristics that contribute to interpreting needs. Characteristics include:

- low functioning
- transition age
- racial/ethnic minority
- little or not work history
- limited English proficiency
- returning veteran
- residentially remote or rural location
- cochlear implant
- use assistive technology (p. 8).

Interpreter Training Needs deemed important by both VR interpreters and SCDs, include

- mental health settings
- interpreting for LFD consumers
- mentoring
- training for VR staff who work with interpreters
- interpreting in employment related settings (p. 18).

Survey of State Staffing Patterns, Issues, CSPD, and Related Outcomes for Consumers who are Deaf, Deaf-blind, Hard of Hearing & Late Deafened (Stauffer & Boone, 2006). This

document was the final technical report to the CSAVR Committee on a 2005 survey of State Coordinators for the Deaf (SCD). Forty-two of 50 states participated with representation from all RSA regions. Interestingly, on 59% of rehabilitation counselors were required to have a minimum sign language level (29% reported "no" and 12% did not respond). The majority of the respondents were required to have an Intermediate level (SCPI 5-8, State Test 3-4, ASL class 2-3). It would appear that even these individuals meeting the state requirement would most likely require the services of an interpreter from time to time. Additionally 85% of agencies use general counselors to serve hard of hearing and late-deafened consumers, 43% use general counselors to serve deaf clients and 24% use general counselors to serve deaf-blind consumers. When asked about barriers to service, 41 of 42 respondents listed 122 barriers total categorized into ten categories. The category, *lack of interpreters (including their availability and cost)* was the third most common barrier to providing quality services (14.6%) eclipsed only by *insufficient resources* (22%) and *lack of competent VR personnel* (16.3%) (p. 24).

Interpreting Issues Related to Interpreting for Individuals with Limited Language Competency

Not all deaf VR consumers seeking employment have strong language skills. While some are fluent in ASL or English, and some are bilingual, there is a group of deaf individuals who are not fluent in any language. These individuals' communication styles have been described by various names: *minimal language skills, high visual orientation, minimal language competency* and *low-verbal*. Differing theories persist as to why individuals grow and mature without obtaining language skills such as social isolation and limited or failed education. Others cite the presence of disabilities such as intellectual and cognitive delays (also referred to as *low functioning deaf, traditionally underserved* or *deaf persons with multiple disabilities*) (Harmon, Carr & Johnson, 1988; Wheeler-Scruggs, 2003). Estimates are that there are between 125,000 and 165,000 individuals who are LFD (Postsecondary Education Programs Network, LFD Strategic Work Group, 2004).

The use of multiple labels as indicated above speaks to the issue of definition. Some deaf consumers may have limited language ability due to social and environmental restrictions without intellectual deficits. Other deaf individuals may have limited language due to delayed intellectual functioning. The approaches to interpreting for this varied group of consumers may be similar in some ways, but may differ in others. For example, a person with no language competency may need highly visual, iconic gestures in communicating, while a person with Downs Syndrome may need simplified but structured language. All agree that whether the root cause is environmental or developmental, limited language or lack of language has a significant impact on these consumers' ability to communicate.

Long and Clark (n.d.) conducted a research project to define this group by identifying and describing general population characteristics. Deaf educators (n=460/896 = 70% response rate) and deafness rehabilitation counselors (n=350/497 = 75% response rate) were surveyed regarding their opinions about this group of consumers. Results indicated that both groups surveyed identified *traditionally underserved deaf persons* as having deficits across five characteristics:

1. communication skills,
2. independent living skills,

3. social skills,
4. vocational skills and
5. academic achievement (p. 2).

Given that communication is difficult at best, communication via an interpreter can present enormous challenges to agencies and providers seeking to serve deaf consumers with limited language competency and also the interpreters through whom they work.

> "Meaningful communication, with or without an interpreter, requires language and background information with which to share meaning. The deaf person with minimal language skills lacks both. Even if the interpreter can find a set of basic signs that the deaf person understands, the deaf person with minimal language skills may still not understand their meaning in the context of the discussion (LaVigne & Vernon, 2005, ¶1).

Interpreting for persons with minimal language skills in the legal system (including police and law enforcement, the courts, and prisons) receives considerable attention. Legal protections such as the requirement for criminal suspects to be informed of their Miranda rights, and the right of defendants to participate in their own defense, require that effective communication take place. The lack of appropriate communication and effective interpretation can contribute to detrimental legal consequences. In a study of the Texas deaf prison population, 18 of 97 prisoners (18.5%) were determined to be "double semi-lingual," that is defined as "not competent in English or ASL" (Miller, 2004, p. 114).

There are specialized training programs and RID certification (SC:L) testing to provide and assess the special knowledge and skills needed to interpret in the legal system. Training and certification are often not enough to address the unique challenges of interpreting for persons with limited language. The use of a qualified deaf interpreter (CDI certified) is advocated:

> "Interpreter competence is particularly salient in the context of an MLS deaf adult. A certified interpreter, or even a team of certified interpreters, may lack competence to ensure effective communication with a deaf person lacking language skills. Thus, courts are turning with greater frequency to CDIs to help bridge the gap between an MLS deaf adult and the court" (Tuck, 2010, p. 930).

Vocational Rehabilitation has long been interested in meeting the needs of deaf consumers with limited language. In 1965 Vocational Rehabilitation Administration of the U.S. Department of Health, Education, and Welfare addressed techniques to better interpreter for deaf consumers with limited language (Quigley, 1965). For example, interpreters should use natural gestures, paraphrasing, rephrasing, definitions, acting skills, facial expressions, and body movements. Interpreters should aim to present a message in its simplest form. Use of *intermediary interpreters* "…knowledgeable deaf individuals with above average verbal ability…" should be considered (Quigley, 1965, p. 41). Intermediary Interpreters work between the hearing interpreter and the deaf consumer.

Fifteen years later, DeVries, Kirchner and Caccamise (1980) provided a list of suggestions to help interpreters working with persons with MLS. The authors described the key to interpreting as *simplicity*. Suggestions included: maintain eye contact, think in a natural order,

use pantomime and gestures, use real objects and pictures, and use an intermediary interpreter. Neumann Solow (1981) and Frishberg (1986) address many of the same issues and interpreting techniques including advocating for the use of deaf interpreters. They provide some additional suggestions such as the importance of repetition and redundancy, avoidance of fingerspelling, and checking for understanding as a "yes" head nod can indicate lack of understanding rather than agreement.

Federal resources have targeted improved services to deaf persons with limited skills. Since 1989, nearly $6,000,000 from the U.S. Department of Education has funded six demonstration projects focusing on comprehensive rehabilitation services to this group (Long and Clark, n.d.). The National Institute on Disability and Rehabilitation Research (NIDRR) of the U.S. Department of Education allocated up to $450,000 for "Improving Employment Outcomes for the Low Functioning Deaf (LFD) Population" as one of its priorities for 2005-2009 (U.S. Department of Education, 2006).

Rehabilitation counselors for deaf consumers express a continuing need for interpreters who are prepared to work with deaf persons with minimal language competencies and developmental deficits. In a survey of state VR agencies that employ interpreters, "interpreting for LFD consumers" was second only to "interpreting in mental health settings" for identified interpreter training needs (Cokely & Winston, 2009, p. 35).

While federal projects seek to define and develop models for serving underserved deaf persons, only one published curriculum could be located that focused on preparing interpreters to interpret for persons with limited language competency. Entitled "Interpreting for Persons with Minimal Language Skills and/or Competencies," this 16-hour non-credit in-service workshop was funded by RSA through the 1985-1990 Region VI Interpreter Training Project (Aramburo & Stauffer, 1990). The curriculum includes pre-and post-test, goals, instructional strategies, learning activities for skills development, handouts, and suggested outline.

Most education for interpreters who want to improve their skills in interpreting for deaf persons with limited language takes places during in-service workshops or non-credit classes. For example, a workshop on interpreting for persons who are deaf and developmentally delayed, presented during the 2011 RID conference, focused on characteristics and interpreter accommodations for deaf persons who are emotionally disturbed, learning disabled, intelligence delayed, orthopedically involved or those with Downs Syndrome, Autism or Aspergers Syndrome (Pennise, 2011). These training events are based on individual and collective knowledge and experience interpreting for these populations. No evidence-based practice or curriculum was identified.

Interpreting Issues Related to Transition from School to Community

Deaf adolescents, like all adolescents, face the transition from the school environment to higher or vocational education or employment. All young adults must answer the questions, "What do I want to do with my life?" or "What kind of job do I want or can I get?" Students who are deaf or hard of hearing face unique issues that their hearing peers do not. Parental advocacy for services shifts to student self-advocacy for accommodations. VR becomes a primary source of services rather than special education. For the first time students may face societal discrimination when no longer shielded by parental protection.

> "Most notably they struggle to understand the world around them, to access information to enable them to make their own informed choices, and to control their own lives in the face of the hearing people's stigma of deafness and the professionals and institutions that impose meanings on their experiences (Corker, 1996)" (Valentine & Skelton, 2007, p. 110).

Students from residential schools where faculty and staff can sign differ from students who come from mainstreamed classes. For residential students, transitioning includes moving into the community where the majority of people neither sign nor understand deafness. Mainstreamed students may transition way from one or two familiar educational interpreters to multiple agency-based or private practice interpreters they do not know.

Deaf and hard of hearing high school graduates are increasingly likely to go to college. In 2006, it was estimated that approximately 700,000 students ages 18-38 with hearing loss were enrolled in postsecondary programs, although many did not need any additional services (Shroedel, 2006). In 2005, thirty-seven percent of students with hear loss graduated with AA degrees compared to 13 percent in 1987; for bachelor's degrees, 36 percent graduated in 2005 compared with only 6 percent in 1987 (Reichman & Jacoby, n.d.; Wagner, Newman, Cameto, Garza, & Levine, 2005).

Factors influencing student transition of deaf and hard of hearing students has long been investigated. Some factors include:

1. experience in paid work while in high school (Wagner, 1991as cited in Bullis, Davis, Bull & Johnson, 1995)

2. gender - women tend to have higher rates of underemployment or unemployment than deaf men (Barnett, 1982: Schroedel and Geyer, 2000)

3. mainstream vs. residential school – mainstream children do better than residential school children who present more disabilities and lower educational achievement (Karchmer, 1985; Schlidroth, 1988 as cited in in Bullis, Davis, Bull & Johnson, 1995)

4. family socio-economic status and children who receive SSI (Welsh, 1982; Welsh & Schroedel, 1982) ex: students who did not receive SSI graduated from NTID than children who received SSI (Weathers, Walter, Schley, Hennessey, Hemmeter, & Burkhauser, 2007)

While this list clearly is not exhaustive, it *is* clear that transitioning from school to community is a complicated topic. A 2011 study of research-identified transition competencies of deaf and hard of hearing public school students of transition age reported that students are not achieving competency despite vocational and transitional programming (Luft & Huff, 2011). The Laurent Clerc Center, National Deaf Education Center has developed a comprehensive Transition Skills Guidelines for deaf students grades K- 12 (Laurent Clerc National Deaf Education Center, 2006). Topics include: self-awareness, rights and responsibilities, advocacy

and empowerment, career exploration and planning, career materials preparation, educational planning, learning/study skills, life-role planning, pragmatics/social courtesies, conflict resolution, teamwork, work attitudes, work habits, time management, resource management, workplace communication, feedback, performance and self-assessment, self-management, technology and equipment, emergency and environmental safety, personal safety, money/banking, purchasing/negotiating, nutrition, clothing, hygiene, travel, community roles and responsibilities, leisure, community resources, community service and **interpreting**.

The Transitions Skills Guidelines provides information for teaching deaf students how to use interpreters. The early years, K-3, focus on students participating in activities with interpreters, understanding basic concepts such as ASL and English, and attending to interpreters. Grades 6-9 guidelines focus on how to work with an interpreter and the Code of Professional Conduct. Grades 10-12 guidelines focus on community interpreting resources, how to access services, qualified interpreter, self-advocacy, public law, etc.

The number of interpreters working in secondary and/or post-secondary settings is unknown and difficult to estimate. While research has focused on interpreters in K-12 settings, little research has focused on interpreter for young adults in the transition years. In 1999 it was reported that there were 20,000 deaf and severely hard of hearing students enrolled in colleges and universities with approximately half using interpreters (Sanderson, Siple, & Lyons, 1999; Seals, 2004). In a 2007-2009 survey, 955 individuals responded to a national survey of interpreters in education settings conducted by RID's Educational Interpreter Committee. Of those, 87% interpreted in secondary or post-secondary settings (Educational Interpreter Committee, n.d.).

No curricula were identified focused on interpreting for young adults during the transition years of 16 - 22. There is literature that addresses best practices in education setting including high school, vocational school, and postsecondary settings (Seal, 2004). Many, but not all, of these students will be VR clients.

Cochlear Implants. One issue that is certain to face interpreters today and in the future is the growing number of infants and children who are receiving Cochlear Implants. The National Institute of Health reported that in 2003 that "More than 59,000 adults and children all over the world have cochlear implants" (National Institute of Health, 2003). The number continues to drastically increase. "According to the U.S. Food and Drug Administration (FDA), as of December 2010, approximately 219,000 people worldwide have received implants. In the United States, roughly 42,600 adults and 28,400 children have received them" (National Institute of Health, 2011).

Young adults with Cochlear Implants will have different interpreting needs than those who have traditionally used hearing aids or sign language interpreters. The field of interpreting is beginning to address this issue. A presentation at the 2011 RID conference addressed emerging issues for interpreters working with children with Cochlear Implants (Parmir, Brodie, & Murphy, 2011). Challenges faced by interpreters include: variable communication needs, increased distractibility, intermittent reliance on the interpreter by the student, reduced eye gaze, increased dependency by the student on facial cues, and changing interpreter job duties.

"Interpreters with a wide skill set will play a key role in facilitating communication for many implant users for years to come" (Parmir, Brodie, & Murphy, 2011, p. 12).

Conclusion

Very little in the field of interpretation or interpreter education is standardized. Interpreting programs are available in two-year or four-year programs. Certification can be under a national body or set by the state. In-service educational opportunities for interpreters often are designed independently by the presenter, based on his or her experience, and, more recently, on research. The fields have not yet embraced standardized ASL sequence competencies or curricula. Interpreter Education Programs are only recently able to seek accreditation, being evaluated against rigid standards. Although approximately 124 interpreter education programs have been established since the first post-secondary interpreter education program began more than 30 years ago, there is little published curricula available. The field is just beginning to identify possible aptitudes for learning a signed language or interpreting between signed and spoken languages that may someday inform recruitment, program admissions and curricular development.

There is good news. Evidence based interpreting competencies are being identified. Interpreter certification systems are responding to the need to be valid, reliable, and legally defensible. Deaf native ASL users are increasingly becoming interpreters, ASL and interpreting teachers, VR counselors, and test evaluators. The number of interpreter educators with doctoral degrees and research background is increasing, and with that, the quantity and quality of interpreting research is expanding.

Within this literature review resides a rich source of information covering 40 years of interpreter and counselor experience within the VR system. Information on the knowledge, skills and abilities that interpreters need when providing services to VR clients, or any consumers, remains remarkably consistent. One thing appears certain: As the demographics and characteristics of consumers who are deaf, hard of hearing and deaf-blind change, and as technology continues to impact and enhance quality of life, the needs of all interpreters will also change and increase. This will certainly be true for interpreters working with clients of Vocational Rehabilitation.

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Appendix A

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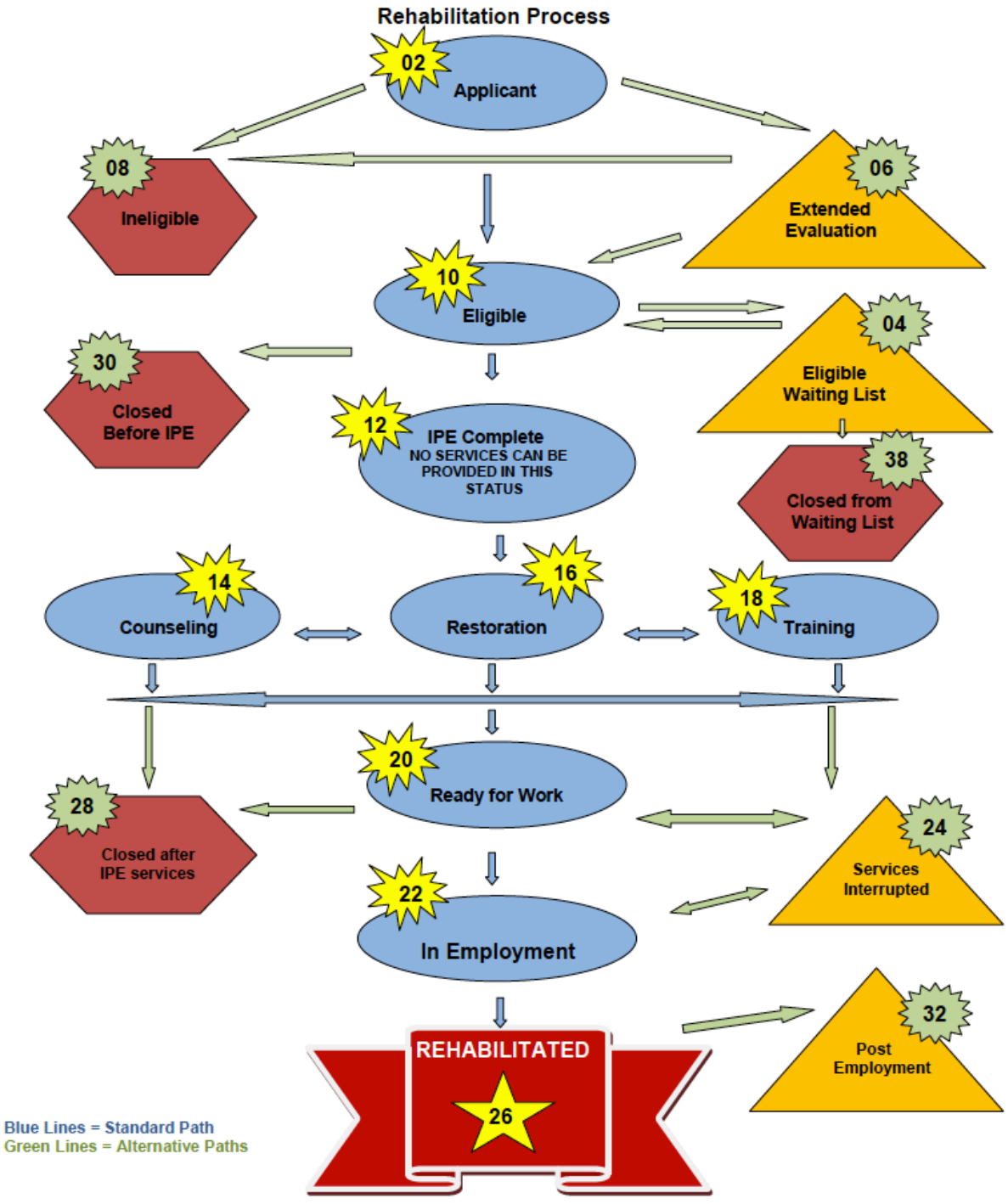

http://info.dhhs.state.nc.us/olm/manuals/dsb/VR/man/Case%20Status%20Codes%20and%20Rehabilitation%20Process%20Diagram.htm

Appendix B

Suggested List of "Knowledge" and "Skills" Content Areas to Consider for Interpreter Training Programs. *Caccamise, et. al. (1980). P. 91*

KNOWLEDGE

Aspects of Deafness

1. History
2. Psycho-Social
3. Audiological

What is Interpreting?

Methods of Interpreting

1. Manual/Sign
2. Oral
3. Simultaneous
4. Voice (Reverse)

Need for Interpreters

History of Interpreting

Code of Ethics

Consumer Issues & Needs

Preparing for an Interpreting Assignment

Physical Factors

1. Personal Factors
2. Environmental
3. Physiological

American Sign Language and Sign Codes for English

Information Important to Interpreting in Different Settings (see listing under Skills)

RID Evaluation and Certification procedures

Community Resources

Public Speaking

Interpersonal Relations

Linguistics/Language Development

An Understanding of Formal Communication and Language Evaluation Results

SKILLS

Methods of Interpreting (see Knowledge list)

American Sign Language

Sign Codes for English

Use of Natural Gestures and Mime

Interpreting in Different Settings

1. Legal
2. Medical
    a. General
    b. Mental Health
3. Performing Arts
4. Television
5. Educational

a. Elementary/Secondary

b. Postsecondary

6. Vocational Rehabilitation

7. Religious

8. Telephone

Use of Intermediary Interpreters

Interpreting for Deaf-Blind Persons

Informal Assessment of Communication and Language Skills