94-1007
Golden West

Development of Norms and Diagnostic Consortia of the Combined English Language Skills Assessment (CELSA) into Deaf Students

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This is a consortium project with the thirteen (13) community colleges in Region VIII (Cerritos, Citrus, Coastline, Cypress, Fullerton, Golden West, Irvine Valley, Long Beach City, Mt. San Antonio, Orange Coast, Rancho Santiago, Rio Hondo, Saddleback). Golden West College will administer and supervise the grant. An advisory committee on assessment of deaf students has already been established. The committee is composed of one representative from each college and two vocational rehabilitation counselors.
This project will address the deaf students’ matriculation services in the 13 Region VIII community colleges. Specifically, this project will make a contribution toward the following initiative:

Implement all components of matriculation to improve the retention and persistence of students and to facilitate the completion of their educational goals.

The results of this project will be highly beneficial to other community colleges in California who service the deaf in that it will provide them with access to standardized test administration procedures of the CELSA, item analysis of the instrument, and a norming sample completed on the deaf population contained in Region VIII.
Specific Educational Program Being Addressed
In the United States, educators have been attempting for more than one hundred and eighty years to develop methods and approaches to educate individuals with hearing loss. While much emphasis has been given to the educational needs of the hearing-impaired child and adolescent, little has been done in the area of post secondary education for the deaf (Reinman & Bullis, 1987).

In 1950, approximately 250 deaf persons were enrolled in postsecondary educational programs in the United States. By 1986, the number had risen to more than 800 (Rawlings & King, 1986). In 1988, the Commission on Education of the Deaf (COED) reported a "significant upturn" of enrollment of deaf individuals since the late 1960's. The COED report to Congress, titled Toward Equality: Education of the Deaf stated that while there were colleges accepting deaf students, many were not adequately meeting their educational needs. Walter & DeCaro (1986) found that about 70 % of deaf students entering college exited without graduating, a rate significantly higher than their hearing peers. The COED report further substantiated this claim, citing the deaf dropout rate to be between 59 and 79%. Several reasons can be cited to explain the unusually high rate of the dropout among deaf students.

First of all, "inappropriate course placement" (Long & Dowhower, 1992) which creates frustration over continual academic failure has been cited by professionals in the field (Nash, 1991). Further, repeated course failure and subsequent dropping out is often tied to poor academic performance. In a study conducted with deaf students by Greenberg and Greenberg (197 1), a strong correlation $r = .80$ was found between Grade Point Average and dropping out, suggesting that those who do drop out, do so for academic reasons.

Secondly, the “lack of available test materials” which have been normed on the deaf is well documented (Reinman & Bullis, 1987; Bradley-Johnson & Evans, 1991). A recent survey of psychologists was conducted by Weaver & Bradley-Johnson (1993). In response to a request to list the major difficulties in assessing the deaf, 30% noted a lack of appropriate testing materials. Currently, the Stanford Achievement Test Hearing-Impaired Edition is the only reading test which has deaf norms. Unfortunately, the age cutoff for this test is 17 years of age, and, therefore, not appropriate for the college population. Professionals in the field of deafness have said again and again, "It is crucial that reliable and valid assessment data be gathered to guide and structure focused and
effective instructional programs" (DeStefano, 1987).

Finally, because English is not the native language of the deaf (Lane, 1992; Klima & Bellugi, 1979), most deaf students' reading levels average around the 4th grade (Allen, 1991). Simply testing and placing students in college classes is obviously not sufficient preparation to meet the demands of coursework. Johnson-Sligar & Sligar (1992), in a study done of deaf students at DeKalb College, found that "the usual academic testing done at the college did not assist the instructors in pinpointing specific strengths and weaknesses." A call was made for colleges to include diagnostic testing and placement procedures so that educational weaknesses could be addressed as learning was taking place.

It is not surprising, then, that frustration and attrition become the norm for most deaf students in college classes. Educationally, then, as it regards the deaf, concerns about access to college must be replaced by concerns regarding the issue of persistence.
For more than 20 years, Golden West College has served as a model program to other colleges throughout the nation in serving the educational needs of the deaf and hard of hearing. More than two thousand five hundred students (2,500) have benefitted from Golden West’s commitment to educational excellence. This commitment has resulted in Golden West developing specialized, innovative programs and services for the deaf and hard of hearing. One of these programs was the establishment of a consortium (1989-1990) composed of eight (8) colleges who then surveyed 106 community colleges that served the deaf in California. Based on the results of this survey, a statewide absence of acceptable (under matriculation standards) measurement instruments for entering deaf and hard of hearing students was identified.

One of the results of this survey was the establishment of the Regional Resource Center for the Deaf and Hard of Hearing (RRC) at Golden West College in March 1993. The RRC’s goals, in cooperation with its 13 member consortium from Region VIII, are to establish a Testing Center which offers appropriate tests for the deaf and the establishment of a networked computerized skills pre-vocational and preparatory program.

The overwhelming number of deaf students entering community colleges in Region VIII are academically underprepared with severely limited English proficiency. Many of these students are non-native communicators of English. At the same time, most of the community colleges in the region, under the regulations of matriculation, either waive these students from college testing (44%, GWC survey 1990) or do not use tests specifically designed for the deaf and hard of hearing (100%, GWC survey, 1990). As a result, students are often misplaced, become frustrated, and drop out. In fact, of the students surveyed, 79% dropped out of classes because of difficulty with English. Consequently, those students in the greatest need of specialized testing and follow up diagnostic information are the very students currently being exempt from any consistent process.

Once again, Golden West College and its consortium are attempting to make appropriate and meaningful strides in the field of deafness by developing a new and innovative approach to achievement testing of deaf students. This approach, which will address the issues of standardization of instructions, the development of local norms for the deaf, the analysis of items for diagnostic information, and the analysis of instructor's ratings of student
preparedness will serve to ensure persistence on the part of the deaf individual resulting in the college’s successful retention of deaf students.
The overriding goal of this consortium project is to provide new and innovative educational strategies for deaf students which will increase individual persistence in the educational process and result in decreased attrition rates for deaf students. The four major objectives to reach this goal are:

1) 100% of the consortium colleges will consistently use the CELSA assessment tool with all incoming deaf students by January 31, 1995

2) Develop local consortium norms for the deaf by June 30, 1995

3) Conduct a diagnostic item analysis of the CELSA to be completed by January 30, 1995

4) Conduct analysis of instructor ratings of student preparedness by June 30, 1995

Method

A Regional Assessment Sub-Committee has already been established to monitor the functions of the RRC Testing Center as they relate to the needs of the student population. The committee is comprised of one member from each of the consortium colleges as well as two district vocational rehabilitation counselors.

The Sub-Committee Chair and Project Director, Elizabeth Barrett, will direct the implementation of the proposed objectives and share all information in a timely manner with subcommittee members. Sub-Committee members have given written commitment to this project (see Appendix) and will be expected to attend bi-monthly Sub-Committee meetings, assure the project is carried out on their campus, and assist in the collection and analysis of data as requested by the Project Director.

The project will be under the administrative direction of Paula Mucciaro, Senior Staff Assistant, Disabled Student Services. Ms. Mucciaro has successfully directed several grants awarded to deaf services and has been involved directly with deaf services at Golden West College for 23 years. The required research will be supervised by Steven Isonio, PhD, Matriculation/Assessment Advisor, Golden West College.

Additional staff will include a part-time senior clerk typist, a research assistant, and a consultant sign language interpreter.
As part of this project, a videotape will be produced to assist in the testing process. Golden West College is fortunate to have extensive media services available for this purpose.
[No information provided in this document for this section.]
The CELSA has been chosen as the assessment tool from the Chancellor's approved list. Because English is regarded as a second language with the deaf population, the CELSA is most appropriate for use with the deaf population. The development of norms and a system of diagnostic subscores for the CELSA for deaf students will support its effective use with that population. Currently, there is no consistency in the way that deaf students are placed into English courses at colleges in the consortium. Appropriate norms and meaningful diagnostics are means toward effectively capitalizing upon the strengths of the CELSA to promote success of deaf students. To be assured of standardized procedures in the administration of the CELSA, a sign language videotape with accompanying closed captioning of the instructions and essay questions contained on the CELSA will be produced. In this way, even consortium colleges with as few as one or two deaf students can be assured that directions will be given in the preferred mode of communication of deaf students who attend community colleges (87%, GWC survey, 1990).

Once the CELSA video has been distributed and is in use, participating colleges have agreed to cooperate in the data collection process. As a result of this, the deaf norms and diagnostic subscores will reflect a broader foundation and a sample that is more likely to be adequate.

Analysis of CELSA item level data will be performed to develop subscores which will be related to specialized instructional programs currently functioning at the RRC learning labs at consortium campuses. The strategy will combine expert judgements about categories of items and statistical analyses including traditional item analysis procedures and factor analysis to develop meaningful and useful diagnostic subscores.

Finally, in addition to assessment with the CELSA, instructors of courses in which students are enrolled will be asked to provide preparedness ratings of the students. This information will be used to develop associations between specific CELSA score ranges and preparedness for courses. Additionally, instructors will be asked to evaluate students on component skills, including reading, writing and verbal expressiveness.
Potential for Continued Support

The successful completion of goals and objectives as stated in the proposal should resolve the overall issues of appropriate placement based on consistent matriculation standards and appropriate tests in use with the deaf.

The need for continued support is not anticipated.

Potential for Adaptation to Other Institutions or Programs

The outcomes produced by this proposal will be easily adaptable to other institutions or programs servicing deaf students.

Once produced and copied, the sign language videotape will be ready for use at any college that wishes to begin a state approved, consistent and standardized method for testing the English skills of deaf students.

Assuming that the deaf population used for this norming sample is representative of students throughout the state, any other college institution could utilize the norms developed to have a valid sample with which to compare their student populations.

The diagnostic information gleaned from the CELSA will serve any institution's need to diagnose specific learning strengths and weaknesses directly from test performance.

Finally, although the instructor ratings employed may not be directly applicable to their college environments, the rating forms themselves can serve as a model for other institutions to develop ratings that would be more specific to their particular needs.
Ongoing and thorough evaluation is a critical component of this project. This will assure its completion within prescribed timeliness, guarantee development of usable norms and diagnostics which will aid student retention, and produce a videotape that can be easily incorporated into the deaf matriculation process at colleges across the state.

Formative Evaluation

To facilitate the attainment of the goals and objectives of the project in a timely manner, each activity to be conducted has corresponding products and dates by which activities are to be completed. The Project Director, Research Supervisor and the Project Supervisor will continually monitor progress in reaching the objectives. The Assessment Sub-Committee Members will, in the bi-monthly meetings, serve as a sounding board to evaluate progress and modify work plans where necessary. To assist in with the evaluation, this committee may also include other experts in deafness who are not project participants on its membership.

Summative Evaluation

For the summative portion of the evaluation, the four objectives of the project will be sequentially evaluated: objective I - all aspects of the development of the sign language videotape will be reviewed by the Sub-Committee before production, a pre- and post-listing of the consortium colleges which consistently use the CELSA will be polled; objective 2 - deaf students from each of the consortium colleges will be included in the norming sample; objective 3 - item analysis to determine item difficulty and item discrimination; and objective 4 instructor preparedness ratings will be compared with student class placement pre and post-use of the sign language version of the CELSA.
The decision to write this plan developed from a shared concern of the consortium committee and a generalized state-wide lack of consistency in matriculation procedures for deaf students. Every effort, then, will be made to make the materials available to as wide an audience as possible.

The materials which have been developed as a result of this project will be disseminated in June 1995 and will include:

A sign language videotape of the CELSA instructions and essay questions

A report of the diagnostic item analysis of the CELSA

Local Region VIII norms for the deaf on the CELSA

A report of instructor preparedness ratings

The videotape, the norms, the diagnostic information and the instructor ratings report will be made available to, the consortium colleges, the staff at the other Regional Resource Centers for the Deaf (Monterey, Fremont, Riverside) and other interested parties.