To assess the written and verbal communication skills of the approximately 100 deaf and hard-of-hearing students attending the College of Business at the Rochester Institute of Technology (RIT) is a real challenge. The only way for most of these students to satisfy the College of Business' general writing competency requirement was to take the Test of Standard Written English (TSWE). The TSWE is controversial: the format and layout of the test make questions difficult for any student to read; the purpose of the TSWE is not to assess students' writing competency but to assist in the placement of students into first-year writing courses of varying degrees of difficulty; and experience has show little correlation between TSWE scores and actual performance and grades earned in writing or other courses. Groups of faculty and administrators developed an alternative essay exam for deaf students and identified and normed alternative objective tests to the TSWE. The essay exam allows students up to two-and-one-half hours to compose an essay on their choice of one of two business-related topics. In four years of testing, approximately 40% of the deaf students passed. Three tests were selected for further study and research: the New Jersey Writing Test, the Written English Expression Placement Test, and the Test of Written English. The process of validating an appropriate alternative to the TSWE is not completed. The college has opted to discontinue use of the TSWE for their hearing students as well. (A copy of the essay test is attached.) (RS)
"Alternative Assessment Measures for Nontraditional Students"

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In 1980 Rochester Institute of Technology formally recognized the importance of written and verbal communication abilities in a policy requiring the faculty "to develop in students the ability to use effectively the English language in speech and writing." This goal mandates development of general writing and communication competency as well as competency in the specific writing and communication skills required by the workplace graduating baccalaureate degree students will eventually enter. Each of RIT's eight, baccalaureate degree colleges (the ninth college awards associate degrees) is charged to meet this goal through their curriculum and to measure students' attainment of these competencies as a requirement for graduation. Several colleges at RIT--among them, the College of Business--sought to meet this goal with the following procedures:

1. All new, entering students must satisfy a "General Writing Competency" by earning a score of 50 or better on the "Test of Standard Written English" (TSWE); or by placement into the course of "Advanced English Composition"; or by earning a score of 3 or better on the Advanced Placement test for English Composition/Essay. Students unable to demonstrate competency on one of these three tests must take one or two remedial writing courses (in addition to the English Composition course required of all students) and earn a grade of "C" or better.

2. All students will demonstrate "Professional Writing Competency" by successfully completing assignments in several writing intensive "core courses" and by submitting a well-written report of their co-op work.
experience.

So far this policy and its procedures of implementation do not seem very different—if at all—from those of many U.S. colleges and universities. What is different for RIT's College of Business—as well as for RIT's seven other colleges—is its heterogeneous student population: There are increasing numbers of international and minority students and approximately one hundred deaf and hard-of-hearing College of Business students. (In all of RIT's baccalaureate degree programs there are approximately 350 deaf and hard-of-hearing students.) It is these one hundred deaf and hard-of-hearing College of Business students who have presented a particular challenge.

THE STUDENT POPULATION

It is not easy to provide a thumbnail description of the "typical" deaf student at RIT. In grossly over-generalized terms, approximately twenty of these one hundred students are directly admitted as first-year students into the College of Business baccalaureate degree programs. The remaining eighty "typically" have entered RIT through its ninth college—the National Technical Institute for the Deaf—where they have earned an Associate's degree and then, subsequently, been accepted for admission to the College of Business. To earn their AAS degree, these students have successfully completed courses in English Composition, literature, and three other areas of the liberal arts. That is where their similarity to each other ends and their diversity begins.

Deaf and hard-of-hearing students at RIT have tremendously wide ranging
critical thinking, reading, and writing abilities. Depending on test results (the Michigan Test of English Language and the California Reading Test--junior high school level) at entry, they may or may not have taken twenty or more credits of remedial English courses. Before coming to NTID/RIT, they may have attended a mainstream high school, a residential institute/high school, a community college, or another college with or without such support services as interpreting and notetaking. They may come from a deaf or a hearing family. They may be prelingually or postlingually deaf. They may have some residual hearing or none at all. They may have been raised in a deaf or hearing culture. They may communicate through American Sign Language or signed English; they may use Simultaneous Communication; they may voice and not sign at all. English may be their first, second, or even third language. Moreover, there are a number of students who have compounding vision impairment and learning disabilities; and a fair number of students have cerebral palsy which, when affecting fingers, hands and/or arms, may have a significant impact on students particularly in timed test situations.

These one hundred students do have one other similarity: for all intents and purposes, they had only one way of satisfying the College of Business "General Writing Competency." None placed into the "Advanced English Composition" course, opting instead to enroll in sections of English Composition specially designated for deaf students. And none earned a score of three (3) or better on the Advanced Placement (AP) English Composition test because few took AP courses in high school,
and none took the AP test. Thus, their only option would have been to take the TSWE.

CRITIQUE

Following implementation of testing for "General Writing Competency," the College of Business sought an evaluation of the TSWE's appropriateness as a measure of deaf students' writing competency. A number of researchers and linguists within NTID reviewed the TSWE; and in his critique of the instrument (contained in a 12 October 1988 memorandum to James DeCaro, Dean of NTID), Gerald Berent, a linguist in Communication Research at NTID, concluded:

For the most part the TSWE taps knowledge of prescriptive and stylistic rules of language rather than core grammatical rules. Such prescriptive and stylistic rules are often followed by advanced writers who are hearing, dominant-culture, native-speakers of English. They are the kinds of rules which do not usually alter functional communication seriously and which even deaf, foreign, and minority students with otherwise high English skills may have difficulty mastering. . . . To the extent that the TSWE taps grammatical competence, it does so in areas of English grammar which are lingering problems for deaf students, who by virtue of physiological and environmental conditions exhibit specific differences and difficulties in the acquisition of English. . . . It is my opinion that the TSWE, aside from all obvious testing arguments (validity, normative considerations,
etc.) against its use, is specifically biased against deaf, foreign, and minority students. (3)

In addition to in-house critiques of the TSWE, a review of the literature found the instrument to be somewhat controversial. First, the format and layout of the test make questions difficult for any students to read, particularly students with a learning disability or vision impairment, frequent among deaf students. In very small typeface, sentences have four parts with potential grammar, vocabulary or stylistic errors underlined. The test taker must identify the section of the sentence containing the error or mark "E-none." In other sections, the test taker must, identify the best possible "correction" to a grammatical or stylistic error. In addition, in the instructions to the test, students are cautioned about guessing: "If you know nothing about a question, you would be wise to omit it and spend time on others that are easier for you. However, if you know enough about a question to eliminate at least one answer choice as incorrect, it is better to try to answer it" (College Board). Although hearing, white males do tend to guess, thereby increasing their chances to have a higher score from which a percentage of their incorrect answers is subtracted, other cohorts of students--including deaf students--do not.

Second, the purpose of the TSWE is not to assess students' writing competency. The test was originally developed in the 1970s as a subtest of the College Board Scholastic Test, a test designed to predict students' potential for success in college. The intent of the TSWE was and is to assist in the placement of students into first-
year writing courses of varying degree of difficulty. Neither test is intended to
evaluate college students' writing competency for graduation (Cohn, 1985, 361; and
Cronbach, 1985, 363).

Third, the TSWE contains two basic categories of items: 1) usage items
requiring recognition of elements in sentences that do not follow the conventions--
grammatical and stylistic--of standard written English; and 2) sentence correction
items requiring recognition of unacceptable writing and selection of the best
rephrasing (Cohn, 1985, 361). Test items tend to emphasize what John C. Sherwood
terms "old textbook grammar" of the 1950s, with most frequently occurring items
related to agreement, parallelism, dangling constructions, and reference--items which
lend themselves most readily to multiple choice, machine-graded tests (1985, 359).
The TSWE does not evaluate such important aspects of effective written communica-
tion as logic, organization within and between paragraphs, transitions, original
thought, or individual style. Nor are students required to produce any prose of their
own; they are required simply to identify errors and best corrections. Experience has
shown little correlation between TSWE scores and actual performance and grades
earned in writing or other discipline courses. Deaf students have particular difficulty
with items testing idiomatic and "best stylistic phrasing" because they generally do
not possess the attribute that Stanford University’s Lee J. Cronbach notes is critical
to succeed on the TSWE: "Success requires an ear for lucid, well-formed sentences"
PROCESS

Hence our challenge: To develop procedures enabling deaf students the opportunity to demonstrate their "General Writing Competency" and thereby satisfy a degree requirement and be able to enter the workplace knowing they have writing skills comparable to those of their hearing peers. We held to the following three principles to guide our development of procedures:

I. Deaf students should demonstrate achievement of comparable general writing competencies as hearing students.

II. Deaf students should have the opportunity to demonstrate their writing competency on appropriate measurement instruments (instruments that are not dependent on students' aural/oral abilities).

III. Deaf students should have equal access to options for meeting the General Writing Competency requirement.

Two working groups of faculty and administrators were formed: The first, to develop an essay exam; the second, to identify and norm alternative objective tests to the TSWE.

THE ESSAY EXAM

We developed an exam, allowing students up to two and one-half hours to compose a first draft and a final draft of an essay on their choice of one of two business-related topics. Because fully eighty percent of the students being tested had been in college for two or more years and had already earned an AAS degree in a business field, we felt that discipline-related topics would provide students with a
"ready" content; they would not have to struggle to "create" content out of thin air, but could use the time to organize, to develop, and to refine that content and to edit and proofread their language--grammar and mechanics (this last is historically, the area of greatest difficulty and frustration for deaf students). (See Appendix A.) Students hand in both drafts at the end of the exam.

Students may opt to handwrite their exam, to work in a monitored computer lab, or to use a lap-top computer. Dictionaries and spell-check are the only resources allowed.

Following the administration of the exam, a team of three readers evaluates each test--reading both drafts--with the final "score" arrived at by consensus. This team is composed of one reader from the College of Business, one reader from the College of Liberal Arts, and one reader from the National Technical Institute for the Deaf. The readers base their evaluation on a list of seven criteria developed by the College of Business:

1. clear and sustained focus
2. logical organization
3. sufficient and relevant supporting evidence
4. coherence within and between paragraphs
5. varied sentence structure and grammatical clarity which does not impede communication
6. appropriate and accurate word choice
7. appropriate revision, editing, and proofreading.

Essays that satisfy these criteria are "passing" in that they demonstrate the student's ability to fulfill the College's "General Writing Competency." Essays that do not satisfy these criteria are evaluated very closely in an effort to diagnose as accurately as possible specific areas of weakness and thereby design for those students individual plans of remediation through course work and/or individual tutorial in the Institute's writing lab. Such individualized diagnosis is not possible with the TSWE.

In the four years of testing, approximately forty percent of the deaf students have passed, and the remaining sixty percent have completed remedial course work.

OBJECTIVE TESTS, ALTERNATIVES TO THE TSWE

A second group of faculty and administrators began work in January 1990 to identify appropriate alternative objective tests. An extensive literature review allowed us to identify forty-two potential tests for in-depth examination; forty-two in addition to three already in use at RIT (those three being the TSWE, The Michigan Test of English Language Proficiency, and the Test of English as a Foreign Language). As a result of the review and evaluation process, we selected three tests for further study and research:

1. the New Jersey Writing Test (from the N.J. Statewide Assessment Program)--a multiple choice test designed to measure high school students' English reading, writing, and critical thinking competencies at the sentence and paragraph levels;
2. the Written English Expression Placement Test (from the Educational Testing Service)--a multiple choice test similar to the TSWE but developed expressly for students at the associate degree level;

3. the Test of Written English (from ETS)--a direct writing measure included in the research project to enable collection of comparable data.

In Spring Quarter 1991, we began the process of "norming" these three tests on paid volunteer deaf students who took all three tests on one Saturday morning. The total testing time was two and one-half hours with ten-minute breaks between tests. The research plan calls for 300 deaf and 300 hearing students to take the tests. Testing is not yet complete.

CONCLUSIONS

Because we have not yet completed the process of validating an appropriate alternative to the TSWE, deaf students in the College of Business currently have only one real option--the essay exam--for satisfying the general writing requirement. Although they may opt to take the TSWE, to date only one deaf student has. Students seem generally satisfied with the essay-writing alternative to the TSWE--as satisfied as possible, given the testing requirement at all. The faculty readers of the essay test also seem quite pleased with the results; these writing samples allow readers to diagnose specific areas needing remediation and to design appropriate programs to address those needs. Moreover, faculty readers have the opportunity to
to see first-hand that some deaf students are exceptionally strong writers and communicators, as fully capable as their hearing counterparts. Finally, this process of designing the essay writing test and working together to evaluate them has helped make faculty increasingly more aware of the special needs and abilities of deaf students as writers and as communicators.

In conclusion, following the successful implementation of essay-exam testing for deaf students, hearing students in the college have voiced concerns pertaining to what they perceive as inappropriate testing of their own writing competency. Several hearing students have taken exception to the deaf students' opportunity to provide a writing sample and therewith have diagnosed their specific needs for remediation. Hearing students taking the TSWE are tracked into courses solely as the result of their numerical score, "whether I need that course or not," complained one student. Indeed, although students may write well, earning top grades in courses with intensive writing requirements, a score of 49 on the TSWE obligates them to take remedial courses. Moreover, the College of Business is finding that the TSWE is not broadly applicable enough to meet the needs of their increasingly heterogeneous student population: many international students have never been exposed to objective, multiple-choice testing in their home countries; hearing students with learning disabilities also have difficulties with this type of testing, especially the time factor; and other students quite simply do not have an aptitude for this type of test. If the college were to develop different tests to meet the needs of distinct groups of
students, there is a risk of using unequal measurements, a risk that is particularly serious given that students who do not or cannot satisfy this writing competency requirement cannot graduate.

As a result of this research and the successful testing of deaf students, the college has opted to discontinue use of the TSWE for their hearing students. All students, hearing and deaf, now are able to demonstrate their writing competency and satisfy the graduation requirement by an essay exam.
WORKS CITED


APPENDIX A

College of Business
General Writing Competency Test

DIRECTIONS:

1. On the cover of your bluebook, print your NAME, SOCIAL SECURITY NUMBER, and the DATE.

2. You will have two and one-half (2 1/2) hours to plan and write a well organized, well developed essay, written in correct English. Express your thoughts naturally and specifically. Support your ideas with reasons, evidence, examples, and details. The essay you write should be a sample of your clearest thinking and your best writing.

3. You should use your 2 1/2 hour time limit in the following way:
   
   A. Take 1 1/2 hours to plan and write a first draft of your essay. If you are writing your essay in a bluebook, use one bluebook for your first draft. If you are writing your essay in the computer lab, you should print out your first draft.

   B. Take 1 hour to revise your essay. If you are writing your essay in a bluebook, you should write your second (final) draft in a separate book. If you are writing your essay in the computer lab, make sure you print out your final draft.

   C. Be sure to save time for proofreading your final draft before you hand it in.

4. When you have completed your essay, hand in:
   
   A. your final draft
   B. your first or rough draft
   C. all scrap paper
   D. the test question sheet.

5. Now, select one of the topics on the following page. You cannot be given credit for an essay on any other topic.
1. The College of Business is considering a proposed curriculum change that would require each B.S. degree student to spend one complete year working at a full-time job related to his/her major. Students would be paid for this year-long co-op which would replace the current shorter co-op requirement. Students would be required to complete this co-op between their junior and senior years at RIT. In addition, students would be required to keep a journal analyzing and evaluating their experiences working in the company.

Do you support or oppose this proposal? Write an essay in which you explain your position. Develop your answer with specific reasons, examples, and details.

2. You work at a well-known florist shop "Flowers by Hardley" where you are the Manager of the Accounting Department. This morning you received a $104.50 bill from Airway Freight Corp., 947 Columbus Bldg., Indianapolis. This bill is for two deliveries: Airbill #18692 dated January 15 and #25479 dated February 5. Airway Freight insists that you have never paid these bills. However, you have cancelled checks and invoices showing that both these shipments were paid when delivery was made. In fact, your firm always pays freight when it arrives. You resent the computerized statement across the bottom of today's bill: "THIS IS OUR FINAL REQUEST BEFORE REFERRING THIS TO A COLLECTION AGENCY. REMIT NOW." This is the first billing you have received. Your firm's general manager has decided that as of today he is switching to another air freight company that takes better care of bookkeeping. He says that any company this careless in keeping records is probably also very careless in handling freight.

Write a letter to the general manager of Airway Freight Corp. Explain your situation as completely as possible. Explain how you believe the general manager at Airway can resolve the situation. Inform him that your firm is changing to another air freight company and explain the reasons why. Be sure to include evidence which will support your claim and use good judgment in the tone and content of your letter. Make up any details about the florist shop and the air freight corp. that you believe will help make the assignment realistic.