

# Speak Up!

## A College Competency Assessment Tool

*Richard Quianthy and Deborah Hefferin*



For two decades, an ongoing effort of the National Communication Association (NCA, formerly SCA) has been the identification of speaking and listening skills, the required levels of competency of those skills, and assessment of skill acquisition. This has been a priority at every educational level from kindergarten through higher education.

This project began in 1982 with the SCA study of Oral Communication Competencies Needed by Community College Graduates Entering Careers. A task force was formed to determine college student competencies in speaking and listening. Following a national survey, the task force developed a set of competencies that were reviewed and adopted by NCA's Administrative Committee in 1985. These were disseminated as the "Essential College Sophomore Speaking and Listening Competencies."

These competencies apply to all college students regardless of the institution they attend, their major, or their program of study. Whether a speech course is required, or regardless of the specific definition of that course, all students should demonstrate the same basic competencies.

A 1987 SCA Wingspread Conference further delineated the competencies and suggested teaching strategies and made suggestions for assessment of the skills. In *Communication Is Life* (NCA, 1990) the recognition of the dichotomy between 'what' communication is and 'how' a student communicates is stressed. The needs to measure knowledge and to evaluate performance behaviors of a competent communicator are equally important.

Evaluation and assessment of communication skills has long been central. NCA demonstrated this commitment when it created the Committee on Assessment and Testing (CAT) in 1970. This committee and subcommittees working under CAT since then have carried various projects forward. In 1990, following a national conference on assessment, NCA adopted Criteria for the Assessment of Oral Communication. The emphasis of this document is on communication as an interactive process.

There are many purposes for communication assessment. Depending on the needs of an individual institution, assessment might be used as a pretest, to place students into a course or to exempt them from it; as a posttest, to exit a course; or as large-scale assessment to identify that educational goals have been met. All of these purposes indicate a need for a test of students' communication competencies, as articulated in NCA's earlier publications.

### Test Development

The current task force developed a paper-and-pencil test on knowledge, of the Sophomore Level Exit Competencies for Speaking and Listening. Specifications for this test include:

- \* The test is not course specific. It may be used in any course that incorporates the competencies.
- \* The test is not text specific. It is assumed that the competencies will be addressed in the course, although the presentation and method may differ.
- \* The test is not jargon specific. Care was taken to see that specialized language would not deter a student from showing understanding of a concept.
- \* The test is developed to show mastery of specific topics.

The task force has developed a testbank covering all of the competencies listed as a part of the sophomore competencies document. Each question is identified as fitting a specific competency. The task force members and other NCA members wrote the original set of questions. This set of questions was then reviewed by members of the NCA's Communication Assessment Commission. The current testbank is the result of this entire process.

The communication practitioner has a lot of flexibility in using this document to assess competencies. They can

use the entire set of questions for an in-depth testing of the competencies, or a selection of the questions could compose a short test that would give a quick assessment of the cognitive component of the competencies. Care should be taken to be sure that all competencies are covered when choosing a selection for a short test.

## The Communication Competencies

### Expected Student Outcomes for Speaking and Listening: Basic Communication Course and General Education

The following student outcomes represent some of the expectations for students taking a basic communication course and/or participating in the general education requirements of a school. Basic course or general education students need speaking and listening skills that will help them succeed in future course and on the job. They need to be able to construct and deliver messages and listen with literal and critical comprehension. The basic course can provide knowledge of effective communication techniques, an arena for developing and practicing skills, and positive feelings about communicating in the future. Instructors and administrators could use some or all of the expected student outcomes to inform the design of a basic communication course. Academic institutions could use some of all of the outcomes to describe campus expectations for students in regard to the general education curriculum (Rosenbaum, 1994).

#### I. Speaking Competencies

Speaking is the process of transmitting ideas and information orally in a variety of situations. Effective oral communication involves generating messages and delivering them with attention to vocal variety, articulation, and nonverbal signals.

In order to be a COMPETENT SPEAKER, a person must be able to compose a message and provide ideas and information suitable to the topic, purpose, and audience. The COMPETENT SPEAKER must also be able to transmit the message by using delivery skills suitable to the topic purpose and audience. In addition, the COMPETENT SPEAKER must be able to transmit messages using interpersonal skills suitable to the context and the audience.

#### II. Listening Competencies

Listening is the process of receiving, constructing meaning from, and responding to spoken and/or nonverbal messages. People listen in order to comprehend information, critique and evaluate a message, show empathy for the feelings expressed by others, or appreciate a performance. Effective listening includes both literal and critical comprehension of

ideas and information transmitted in oral language.

## Data Analysis

### Validity

The Cognitive Test for College Level Communication Competencies meets the criteria for face and content validity. The multiple-choice questions were carefully designed and refined by communication experts. The test was sent for review to colleagues who gave feedback and suggestions. The final version was then sent to members of the NCA Committee on Assessment and Testing. It was on the agenda at the 1997 Chicago Convention for the CAT business meeting where it was discussed thoroughly and given approval for further testing.

### Data

This test was given as a final exam for speech communication classes in the 1997 Fall semester at Broward Community College in Florida. Some classes were straight public speaking; others were a hybrid of communication theory and public speaking. One hundred forty-six students took the test.

The students are predominantly white (93). Twenty-one identify themselves as African American, fourteen students are Hispanic. Two-thirds of this group of students is female.

Three-quarters of this group are traditional students between the ages of 17 and 22. Twenty-one are between 23 and 29 years old. Eleven are over thirty.

## Results

### Item Analysis

The first thing that is done in a Rasch analysis is to "test the test"—to examine the items on the survey to make sure they are creating a valid ruler to measure the variable.

Do the items cover the range of the variable? It is not useful if everything is bunched up together. It would be like giving a test with only simple addition problems. We would not know whether the person could perform other mathematical functions — only whether he or she could add. So, too, with "speech communication competency." If we have a range of easier to harder items, then we have an indication of the level of a person's speech communication ability.

### Item Fit

Do all of the items "fit"? Are we measuring what we think we are measuring? Which items, if any, need to be rewritten for future surveys? Checking allows us to be sure we are only measuring one thing at a time.

The Communication Competency Assessment passed all tests with flying colors. The items fit and have a wide range of difficulty. This means we have developed a calibrated in-

strument that measures what it is designed for and can be used to examine student competency.

### Logits

The units of measure are called "logits" and each logit has 100 points. When reading this report, all numbers are directly comparable to each other. The results for each item or person are in the same units of measure. Thus we can compare students from this year to the next, or one class to another common frame of reference. This gives a benchmark, which can be used to compare with future performance, and help in establishing goals for improvement.

### Measurement Scale

The scale has been calibrated so the origin, or balance point, is 10.00. That means a person who is "average" in ability/competence, or an item which is of "average" difficulty, has a measure of 10.00. An item calibrated at 10.00 has a 50/50 chance of being answered correctly by a person who has a 10.00 measure of ability. The lower the number, the less ability the person has, or the easier the item is to answer correctly. Measures higher than 10 indicate more ability/competence than that of the "average" person, or an item that is harder than average.

### Person Summary Statistics

The average raw score is 46.7 out of 75 items. The average person measure is 10.67. The model error is .27. The standard deviation is .60. The separation is 1.88 and reliability is .78.

These statistics mean this group of students is fairly competent as a whole: .67 logits above the mythical average. Each student measure is accurate to within about a quarter of a logit, or .27 logit.

The standard deviation shows the shape, or spread, of the distribution. Ninety-five percent of the students will be within two standard deviations up or down from the average measure of 10.67. In other words, 95% of these students will have a measure within the range of 11.87 and 9.47.

The person separation of 1.88 is not terribly high, and person reliability is .78. This means some people are similar in their competence. The reliability tells us that 78% of the time the person measures will give the same order for person competence. In other words, 22% of the variance in person measures is due to estimation error.

### Item Summary Statistics

The average item measure is 10.00. The model error is .21. The standard deviation is 1.11. The separation is 5.11 and the item reliability is .96.

The center point for item difficulty is set at 10.00.

Items higher than 10.00 are more difficult than average and items lower than 10.00 are easier. Item calibrations are accurate within an error of 21 points, or about a fifth of a logit.

Item separation is very high at 5.11, and item reliability is .96. That means only 4% of the variance in the item calibration is due to estimation error. This excellent reliability allows us to have confidence in the items defining "Speech Communication Competence."

The Person - Item Map (Figure 1) gives a visual report of the results. Along the left side is the logit ruler which measures the placement of the persons and items. Remember, the important, unique feature of this method of analysis is that each facet is measured independently. The higher the measure (the placement on the page), the more the person's ability or the more difficult the item.

The map shows the students' measures are distributed in a normal curve. Each # stands for two cases; a . is an individual. The person measure of ability is from a low of 8.29 to a high of 12.14, a range of almost 400 points.

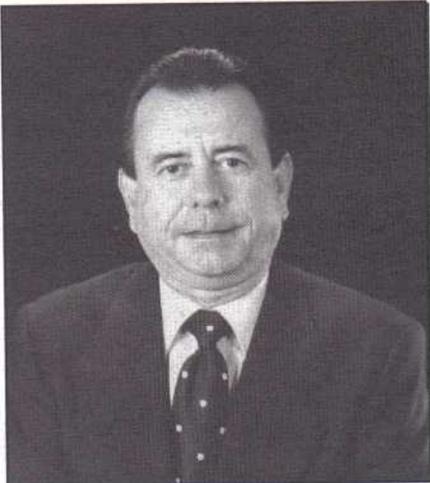
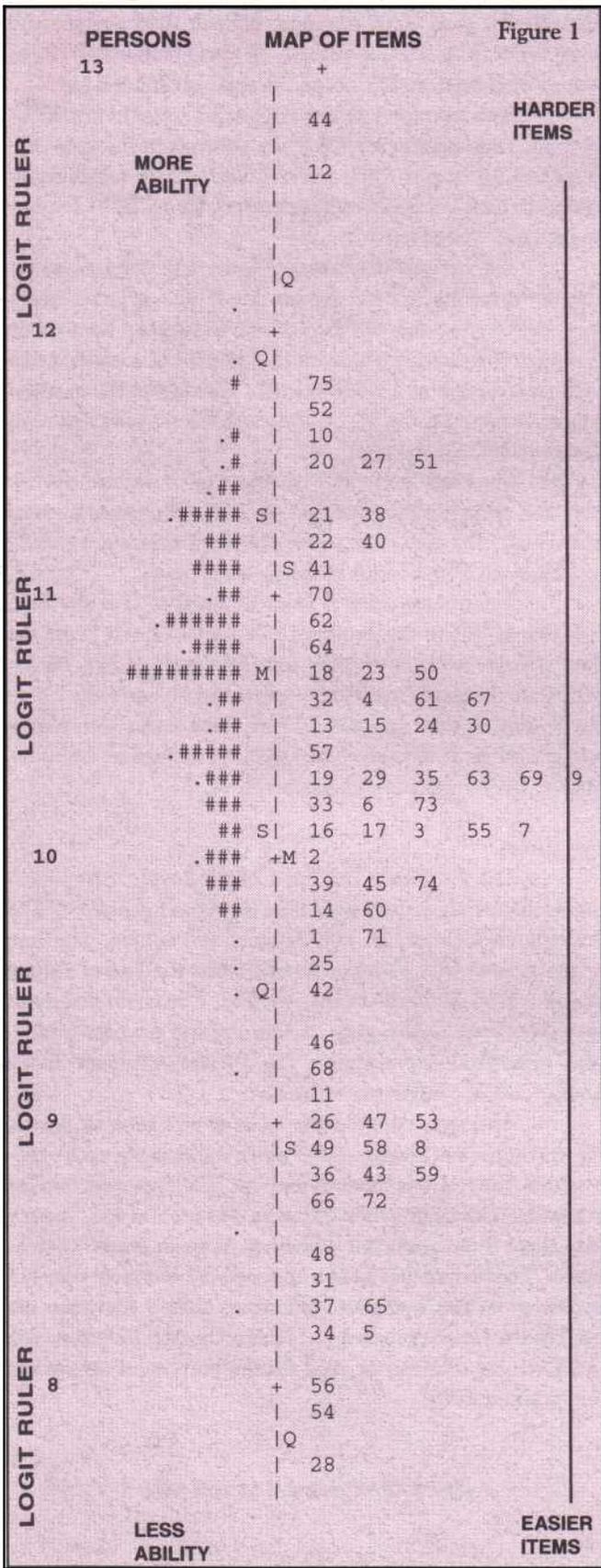
Items range about 5 logits in levels of difficulty from very easy at 7.65 to very hard at 12.76. Items 44 and 12 are the most difficult items at the very top of the page. Items 28, 54, and 56 are the easiest items for people to answer correctly. There are no gaps in item difficulty. These items cover a very wide range, and provide a good yardstick to determine cognitive Speech Communication Competency.

### Discussion

The Cognitive Test For College Level Communication Competencies Assessment is an excellent instrument. The multiple-choice items are well-designed and refined. The item analysis shows that all items fit well along the line of inquiry and provide a definition of the variable. The calibrated items spread out over a wide range of difficulty and can clearly identify a person's ability measure. The .96 item reliability allows a great deal of confidence in this test.

Although some demographic groups such as Asians, American Indian, Hispanic, and older students are under-represented, the test was checked for bias. The data were divided according to demographics: ethnicity, gender, and age. In each case there is no significant difference in mean person competence. The items behaved in a uniform way and there does not appear to be any systematic difference in how the items are used by the various subgroups. Thus far the data indicate a fair, unbiased test that can be used for the purpose of assessment and accountability.

*(Speak Up! Continued on next page)*



Richard Quianthy

Richard Quianthy served as Project Director for the development of this test. He is a Professor of Communication at Broward Community College, Ft. Lauderdale, where he teaches Public Speaking and is the recipient of an Endowed Teaching Chair. Richard has been involved with the development and assessment of speaking and listening competencies since 1983. He is currently serving as the Vice-chair of the National Communication Association's Communication Assessment Commission. He has been recognized by NCA as an Outstanding Community College Educator and for "Outstanding Contributions to the Field of Assessment."



Deborah Hefferin

Deborah Hefferin also is a Professor of Communication at Broward Community College and holds an Endowed Teaching Chair. Since 1982 she has worked on various projects developing communication standards and competencies at the K-12 and college level. Her interests include taking the standards and working to develop teaching activities and assessment instruments to complete the project. Deborah recently served on the NCA Educational Policies Board and received the 1996 NCA Community College Educator Award.

