Meaningful Measurement (MM), a system devised by Donna Surges Tatum based on Communication theory and a mathematical model, produces objective measures of student performances. This technique allows us to compare evaluations across sections and courses. We should thus be able to document real improvement in competence for individual students as well as for groups of students, regardless of the persons doing the rating. The method can provide evidence for actual "value added" for a given assignment, course, program, or curriculum when used cumulatively (Tatum, 1997).

Assessment through MM has come to our university at a propitious time. The university is embarking on a major initiative on student learning outcomes, and the implementation of MM has been funded by the Lilly Foundation. Our "learning initiative" is intended to direct attention to measuring student progress in terms of outcomes, what they actually know and can do, rather than in terms of hours or courses completed (the "inputs" approach to charting student progress). The Lilly Foundation has provided grants for several private colleges and universities to enhance the effectiveness of the transition from high school to post-secondary education. Butler's grant is divided among several initiatives, two of which are Communication-Across-the-Curriculum and Meaningful Measurement.

The results of our pilot study here based on an analysis of the use of MM in eight sections of basic public speaking indicates that the rating items were reliable and that raters were consistent in their use of the items. Of most interest is that the analysis documents that student speakers exhibit real improvement (well beyond chance) as a result of the courses. The analysis also provides breakdown for improvement from first to second speech, from second to third, and, when possible, from third to fourth speeches in a semester. This issue is of special interest in our department as we are concerned to determine whether there are an optimum number of graded speaking assignments that should be required in a basic semester course. The analysis also provides data indicating the learning outcomes, or assessment, of the course.

During summer 1997, the Communication Studies Department held a workshop concerned with faculty and course development. We took up the matter of expanding the implementation of MM to all sections of SH101. Donna Surges Tatum attended two days of the workshop to help faculty further understand MM. Several important steps were taken at the workshop to broaden the program at Butler University.

First, the Communication Studies faculty discussed the rating form and decided to make some changes with regard to the items used on the form. Changes were made to reflect a more universal consensus of what expectation we have of skills students should master in a public speaking course. Two forms were developed: one with the ratings (1-6) Terrible, Poor, Average, Good, Very Good, Excellent to the right of each item; another was developed for faculty use with a line to write the numbers 1-6 and also a comment area to the right of each item. Second, we rated and discussed videotaped speeches of Butler students in order to examine our rater behavior and to determine what we look for as instructors. Third, we formed a small group of three faculty members to view videotaped speeches of Butler students in order to examine our rater behavior and to determine what we look for as instructors. Fourth, we selected four videos speeches were selected to become norming speeches. These speeches were chosen on the basis of completeness, relevance and variety, clarity of speech, and tape quality. The faculty members also looked at delivery, clarity of content, and variety of speaker organizational methods.

All four speeches were delivered as part of a competition we call Speech Night. The speakers competing in the preliminary rounds were voted on by their classmates in each session and were often the better speakers in the class. All speeches were persuasive. The four speeches selected by the faculty panel were then copied onto videotapes for use for norming purposes. Also during summer 1997, a faculty development workshop was offered to faculty outside the Communication Studies Department. Faculty members attended this workshop from the School of Pharmacy, Fine Arts, Business Administration, and the Liberal Arts College. MM was of special interest to pharmacy faculty members because of a course offered in the School of Pharmacy called "Professional Communications" which is designed to help student-pharmacists develop their speaking and consulting skills when discussing medications with patients and their family members.

In consultation with the pharmacy faculty, the MM rating form developed at Butler was modified to be applicable to
their needs. The student-pharmacists were observed and rated using an interview-style form. Items from the MM form were chosen which were most applicable. Nineteen items were pulled out of the SH101 form and the descriptors were changed to focus the items on the needs of the consultation setting.

The “Student-Pharmacist Consultation” form is now being used in both sections of the Professional Communication course. Forty-seven students and five faculty members were normed using four videotaped student-pharmacist consultations, establishing a baseline for the raters (student-pharmacists and faculty) with these individuals becoming connected to the larger database through the same MM items as appear on the SH101 form.

There are four rounds of student-pharmacist consultations during the semester. In each of the rounds, students rehearsed interpersonal skills with different “patients.” In Round One, students act as “patients,” and students and School of Pharmacy faculty rate the student-pharmacists. In Round Two, other Butler University faculty members and residents of a local retirement community act as “patients.” During Round Three, faculty was used as “patients,” and the consultations, which are rated by the pharmacy students, are also videotaped, because the student-pharmacists have the opportunity to compete in a national competition. Round Four consists of “live” consultations with faculty members as “patients.” Service-learning students, who are students training “in the field” at pharmacies in Central Indiana, also act as consultants and as raters.

The logistics of implementing MM are quite simple. Students are hired for data entry and have responsibility for particular classes. Each faculty member organizes his/her semester differently, so weekly data entry duties are a bit unpredictable, but an average of about fifteen hours a week is spent entering the speech ratings for all twenty SH101 sections and the pharmacy course.

All faculty members have elected to use MM in some manner in their class. Some have every student rate every speech; others have students rotate as raters. Data is e-mailed twice a week to Donna Surges Tatum, and reports are sent back the following day. Each report consists of Overall Speech Measure, and the subscales of Speaker, Audience, and Message measures. Instructions are included to help faculty interpret the report and give useful feedback to the students.

Halfway through the MM project, some observations are possible. Assessment is a faculty development tool. When we as teachers must think about what is being assessed, it forces us to re-examine our teaching, and refine the classroom experience.

The speech measures have a high correlation with the speech grades as given by faculty. Thus the objective measurement is supported by the subjective evaluation. This is of great importance to the skeptics who did not believe that it is possible to produce calibrations and measures in a performance situation such as public speaking. They now see objective measurement as a teaching tool and are willing to participate.

Butler University’s commitment to the learning initiative is enhanced when we have a definitive method of assessment. We can pinpoint just how much value has been added to each student who takes this required Public Speaking course.

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William W. Neher

Bill Neher is professor of communication studies at Butler University. He has been at Butler for 27 years, where he has served as Dean of the University College, Director of the Honors Program as well as Head of the Department of Speech Communication, now Communication Studies. He is currently the chairman of the Faculty Assembly, the faculty governance body at the university.


In addition to his duties in the Department of Communication Studies, he also teaches in the Butler Change and Tradition core program, the MBA program (courses in organizational communication), as well as courses in African studies. He has served as a consultant and trainer in presentational speaking for, among others, AT&T, PSI Energy, Indianapolis Power and Light Co., the City of Indianapolis and State of Indiana, TransUnion Corporation, Department of Public Instruction, several health organizations, charitable organizations, and professional associations.

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Debbi is married with one child and one dog. She enjoys running and exercise and will run in the Indianapolis 500 Mini-marathon for the sixth time this May.

Her favorite travel spots are Maine and Cape Cod.

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A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it.

Max Plank