

Editorial: *Applying the Assessment Standards to Graduate Education*

Denise Spangler Mewborn

The National Council of Teachers of Mathematics (NCTM) will soon release the *Assessment Standards for School Mathematics*. The document presents six standards or criteria against which all assessments should be judged. These standards propose that all assessments should involve important mathematics, enhance learning, promote equity, be open, yield valid inferences, and be consistent. The document also presents examples to show how the standards might be applied to assessments done for various purposes. The introduction to the document provides a model of the assessment process, which involves a dynamic, interactive relationship between planning the assessment, collecting evidence, interpreting evidence, and using results of the assessment.

Although the title of the document implies that the *Assessment Standards* apply only to K-12 mathematics assessments, the document has implications for assessments conducted at all levels, including the graduate level. The publication of the *Assessment Standards* gives those in higher education an opportunity to examine current assessment practices and consider some alternative practices that might be more in line with the *Assessment Standards*. Although all six standards apply equally to graduate education, space permits discussion of only two—the learning standard and the openness standard.

The Learning Standard

The learning standard states that all assessments should enhance the student's learning. An example of a place where the learning standard might be applied to graduate study is the dissertation or thesis. A dissertation should serve as an opportunity for a student to conduct original research and write about that research in a scholarly manner. If this capstone experience of graduate school is intended to prepare the student to assume the role of an assistant professor who conducts research and publishes the results, it would be more practical for the dissertation to take the form of one or more manuscripts of publishable quality. Sadly, many doctoral students never publish an article from their dissertations. Consequently, the research that is done for the dissertation is not widely disseminated within the mathematics education community. Rethinking the nature of the capstone experience could enhance students' learning by preparing them for

the publication-oriented world that they will be entering as assistant professors. Further, the learning of the entire mathematics education community could be enhanced by disseminating the research findings generated by graduate students.

The Openness Standard

The openness standard states that assessment should be public and open to review and revision. One possible application of the openness standard to the dissertation process involves the format that a dissertation takes. As qualitative methods of data collection and analysis become more common in research studies conducted by doctoral students, the traditional five chapter format may not be appropriate for all dissertations. What constitutes an acceptable dissertation proposal or final document should not be dictated by form but by other clearly defined and openly expressed criteria for scholarly research and writing.

Written and oral examinations, commonly called comps or prelims, provide another example of a setting where the openness standard can be applied. Although these examinations are handled in a variety of ways at different institutions, a common thread among students' experiences seems to be anxiety stemming from not knowing what to expect. Much time and energy is wasted by graduate students worrying about the unknown. The openness standard demands that students know what will be expected of them so that they can make productive use of their study time.

Concluding Remarks

Both faculty and graduate students often characterize many of the events of graduate school as hoops through which the student must jump. This is a sad characterization of higher education. Graduate school should not be an endurance test; rather, it should involve a series of educationally worthwhile experiences.

Changing assessment practices so that they are in line with the *Assessment Standards* must involve students, faculty, and administrators cooperatively envisioning ideal assessment practices and working toward these ideals in manageable steps.

Denise Spangler Mewborn is a mathematics education doctoral student at The University of Georgia. She was a member of the Assessment Standards writing team during 1994.