Selected Anecdotes About Anecdotal Comments

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Change in content, assessment and teaching requires changes in reporting assessment results. Romberg (1995) states that authentic or trustworthy assessment requires a reporting system sophisticated enough to embrace a complex view of the learner. "No longer will a single numerical score suffice to describe the complex processes involved in engaging the kinds of mathematical activity described in the *Standards*" (p. 16).

As part of this article, a few comments will be made about each of these questions: What are the main kinds of mathematical activity described in the *Curriculum and Evaluation Standards for School Mathematics* (NCTM 1989)? What is the role of anecdotal comments as part of authentic assessment of the kinds of mathematical activity? What are some nonexamples and examples of meaningful anecdotal comments for parents? This brief discussion does not present a final word on anecdotal comments but provides information for reflection and to initiate further discussion.

The major purpose of mathematics achievement assessment is related to reporting to parents the present status of students as well as growth that has taken place as a result of instruction. Examination of the major goals of the NCTM standards reveals that it is impossible to embrace and do justice to these goals by attempting to translate related achievement into a single grade for a student that has any meaning.

To begin with, both *procedural knowledge* and *conceptual knowledge* are necessary aspects of mathematical understanding. Parents should be informed about each. An excellent pamphlet produced by the British Columbia Association of Mathematics Teachers (1995) begins by stating that the development of *mathematical power* is the central goal of any mathematics curriculum. Since that is the case, shouldn't parents be informed about their child's sense of mathematical power? Whenever possible, shouldn't authentic assessment include information about each component of mathematical power: the abilities to think mathematically, communicate mathematically, connect and solve nonroutine problems? If the answer is yes, can this be done with a single letter-grade?

Two general goals for *all* learners are that they *learn to value mathematics* and that they become *confident in their ability to do mathematics* (NCTM 1989, 5). Parents should receive information about these important goals.

Development of number sense is an important goal of the new common curriculum of the Western Canada Protocol. As teachers collect data about indicators of the presence of number sense, shouldn't these be shared with parents?

Learning mathematics includes developing a disposition toward the subject. *Mathematical disposition* (NCTM 1989, 235) includes confidence, flexibility, persevering, curiosity, reflecting on one's own thinking, valuing applications and appreciating the role of mathematics. Parents should receive information about this important aspect of mathematics too.

These aspects of mathematics learning that have been isolated and described are not mutually exclusive. However, it is obvious that achievement with respect to these major goals of mathematics learning cannot be summarized by a single grade. Anecdotal comments are also required. (For a time, teachers and schools in British Columbia had the option to use anecdotal comments as the sole method of reporting on mathematics achievement. Directions from the ministry now stipulate use of grades and anecdotal comments.)

Innovations or changes in education require professional development programs. Without such programs it is and will be difficult for some teachers to meet new standards for curriculum, evaluation and teaching. Without appropriate assistance of some sort, it may not be easy to learn how to write appropriate anecdotal achievement comments that are part of authentic assessment. The possible difficulty is illustrated in the following examples.

It is assumed that for anecdotal comments about achievement to be an important part of authentic assessment, they should refer to specific ideas, procedures and skills learned as a result of instruction in the setting students are in. These comments should not be based on what students learned in previous settings from previous teachers.

In British Columbia, anecdotal report cards became the flash point for some parents with the education system because of the tendency for the cards to be too general. A May 4, 1995, editorial in the *Victoria Times-Colonist* pointed out that "vague edu-speak like 'Johnny is an active participant in class' could mean he likes to answer questions, or he disrupts every discussion."

Some parents were happy about replacing the use of "one-dimensional" grades to describe students' achievement with meaningful anecdotal comments. In a November 9, 1994, article, a columnist for the *Saanich News* was elated over having received comments like, such as, "has mastered the nine-times table" and "has learned to divide three-digit numbers," rather than a "bare" grade.

My November 30, 1994, letter to the editor which appeared in *Saanich News* included the following questions and comments about some ideas in the earlier column:

> Are these statements as meaningful as they might sound?
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> The intent of the questions and comments that follow is to cause reflection and reaction. At the same time these ideas may hint at the new goals of mathematics teaching and learning.
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> What does mastery mean to different people? How is it defined? Since the definition of this term can be very subjective, a statement that makes use of it may not provide any more information than a "bare" grade. Teachers as well as parents know that what is taught can be forgotten. Wouldn't it be nice for parents to know that children are able to "recall most/all of the nine-times table and have thinking at their disposal for retrieving or re-constructing forgotten facts."
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> What does the statement about having learned to divide three-digit numbers mean? (Which number has three digits?) How is this different [from] or the same [as] previously learned division tasks? Are students able to recite steps or rules to get an answer? Do they know whether or not a calculated answer is reasonable? Can they detect an error and correct it on their own? Do they know who would want to solve these types of tasks? When? Why? Can they explain or write out a solution procedure in their own words? Can they provide reasons for all of the "mental moves" that are recorded on paper in order to arrive at an answer?
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> I think that in order for anecdotal comments to be meaningful, they need to go beyond the "specific examples" cited by Norbury.

The May 4, 1995, *Victoria Times-Colonist* editorial included the following observation:

> But when the reports are done properly, everyone has a very clear idea of how the student is doing. Try, Susan is a quick study at mathematics, easily adding and subtracting numbers in the hundreds. She is on target for her grade level. But she is often in a hurry, makes simple mistakes, and needs to spend more time doublechecking her work. Compare what that tells you to a grade of B-plus.

My May 9, 1995, letter to the editor in response to this *Victoria Times-Colonist* editorial included the following questions and comments:

> My response to the challenge to "Try" left me puzzled about many statements and raised questions not only about Susan but also about the purpose of the comments that were identified to provide "clear ideas."
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> How would "quick study at mathematics" be defined? Would everyone agree on the definition? What are some characteristics of being quick? Is reflective thinking and problem solving part of this being quick? What abilities are employed as numbers in the hundreds are "easily" added and subtracted? How is "easily" defined? What is a target or "the" target? How is "target for a grade level" defined? What is the purpose of the statements about "being in a hurry" (Is that part of being quick at mathematics?), "making simple mistakes" (What kind of mistakes?) and "needing to spend more time doublechecking work?" Is something planned to correct these difficulties? Are statements of this type really clearer than what a B-plus grade tells us?
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> "Easily adding and subtracting numbers in the hundreds" could mean "being able to arrive at the answers without having to use pencil and paper," "having several solution strategies at one's disposal" or "being able to employ several estimation and mental computation strategies" in some classrooms and "getting many answers correct on a timed test" in others.

The questions, comments and examples included in these letters provide hints about the characteristics that I think should be part of meaningful anecdotal comments if they are to be part of authentic assessments of the various aspects of mathematics learning.

Some sample materials produced for B.C. teachers fail to show what I think anecdotal comments should communicate to parents. For example, the *Evaluation Techniques and Resources—Book II* (BCPTA 1992, 10.15) for primary teachers includes the following sample entry under "Intellectual Development":

> In math, _____ is continuing to practice number facts to 18 to increase her speed and

accuracy. She has been reviewing place value to the hundreds and has demonstrated an understanding of the concept. She will be introduced to thousands next.

Similar examples are listed. These entries are a reflection of the content being studied rather than report on what has been learned by the student whose name is to appear in the blank that is provided. Information of this sort would probably be more suitable for a newsletter rather than for anecdotal achievement reports about mathematical (or intellectual) development.

Collecting anecdotal data about students for various aspects of mathematics learning should not be more or extra work. It should be part of ongoing instruction. Learning how to translate the collected data about the important aspects of mathematics learning into meaningful statements may require some effort. I am sure that our students and their parents will not only benefit from this effort but also appreciate it.

References

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People need responsibilties. They resist assuming responsibility, but they can't get along without it.

—*John Steinbeck*

Wouldn't it be wonderful if all children behaved the way you think you acted when you were a kid?

—*The Globe and Mail*