Teacher Inquiry Into Formative Assessment Practices in Title I Reading Classrooms

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The Center for Advancing the Study of Teaching and Learning (CASTL) was established in 1998 in the Department of Foundations and Leadership at Duquesne University School of Education. CASTL engages in research programs dedicated to understanding, advancing and disseminating evidence-based study of the teaching-learning process.

Mission and Goals

The Center for Advancing the Study of Teaching and Learning promotes systematic and intentional inquiry into the teaching-learning process and, through careful and collegial study of learning-centered environments, seeks to advance the understanding and dissemination of evidence-based study of the teaching-learning process in service of all learners.

To promote its mission, CASTL intentionally pursues the following goals:

- Promote socially just, learning-centered environments that bring excellence and equity to all learners;
- Foster systematic and intentional inquiry into the beliefs that educators hold about educational theory and research and effective practice;
- Honor research, theory, and practice as legitimate and complementary sources of knowledge regarding the teaching-learning process;
- Elevate professional learning and educational practice to the level of scholarship;
- Advance the conceptual framework of leadership as learning;
- Develop a knowledge network fueled by researchers, theorists and practitioners who contribute to advancing the study of the teaching-learning process;
- Establish and perpetuate an international community of teacher-scholars representing a variety of teaching and learning environments;
- Promote and coordinate communication within a network of educational institutions and organizations that collaborate in the recruitment and education of teacher-scholars;
- Create a culture of professional learning based on research situated in schools and in other learning environments;
- Examine and develop methodologies by which the teaching-learning process is studied;
- Advocate for the enhancement of the teaching-learning process in service of all learners; and
- Share what is learned about the teaching-learning process.
This report is one of a series from our ongoing research effort to advance the study of teaching and learning. If you have any questions or comments on this report, or if you would like to find out more about the activities of CASTL, contact:

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Abstract

The purpose of the study was to answer these research questions:

(1) What do teachers learn (professional development) when they participate in teacher inquiry into their own formative assessment practices?

(2) What, if any, new or modified assessment practices do they devise, including both (a) methods to elicit information from students about their understandings and skills; and (b) methods to provide feedback to students in a way that helps them see how to proceed or improve?

(3) What are the results for student learning?
**Formative classroom assessment** is assessment conducted during instruction in order to give teachers and students a clear idea of how students’ performance levels compare with the target (the learning goals or objectives), and how they might close the gap between their current level of understanding and the target.

Research suggests that when students experience formative assessment that emphasizes the following methods, they learn more (Black & Wiliam, 1998; Meisels, Atkins-Burnett, Xue, & Bickel, 2003; Newman, Bryk, & Nagaoka, 2001; Rodriguez, 2004) and develop a more mastery-oriented approach to learning (Ames & Archer, 1988; Meece & Miller, 1999):

- communicating clear learning targets to students;
- interpreting student work, behavior, and discourse for what it says about their achievement – where and why they are “stuck” or proceeding smoothly; and
- providing clear descriptive feedback tied to learning targets and informed by knowledge of developmental progression in the area of study (in this case, reading), student needs, and student motivation.

Research on feedback suggests that to be useful for learning, feedback should have the following characteristics (Bangert-Drouns, Kulik, Kulik, & Morgan, 1991; Butler & Winne, 1995; Kluger & DeNisi, 1996):

- frequent and interactive;
- informational and descriptive (of the work, not the child);
- focused at an appropriate level of abstraction (which will differ with the task and the child); and
- involving the student in self-assessment.

Despite the conclusions listed above, much remains to be known. Creating a good formative learning environment is not a simple matter (Blumenfeld, 1992). There are not a lot of descriptions of specific formative assessment practices in specific subjects, and those that have been published have been mostly conducted in the United Kingdom (Torrance & Pryor, 1998, 2001; Tunstall & Gipps, 1996; Wiliam, Lee, Harrison, & Black, 2004)

This study sought to involve early literacy teachers in investigating their own formative assessment practices, first identifying what they already do, then reflecting on it and seeking information about their areas of concern and experimenting with improvements in practice in their own classrooms. This study builds on professional development work in reading that the university and school district had conducted in 2004-2005. The reason for selecting reading for emphasis that year was that achievement on the state reading assessment was low. With professional development reading achievement did, in fact, rise in 2005 in the district. Therefore, the Title I reading teachers who participated in this study already had opportunities to strengthen their knowledge of reading development and were ready to expand their expertise in formative assessment.
In this district, Title 1 reading teachers must have a certification beyond elementary education (e.g., Reading Specialist, Masters in Literacy). Students in either Title 1 funded program (Extended Day Kindergarten or reading support in the primary grades) have been identified as achieving below the expected reading standard for their grade level.

**Method and Data Sources**

The Title I Reading Coordinator for a large rural school district in a mid-Atlantic state selected six Title I reading teachers to participate, because of their interest in inquiry in the area of classroom formative assessment. Two taught Extended Day Kindergarten (EDK) and four taught remedial reading students in the primary grades. Professional development using both face to face meetings and online resources was conducted by two university professors and the Title I supervisor. The online resources supported the teachers as they employed a process of systematic and intentional inquiry to examine their classroom practices and the beliefs and assumptions that drove those practices. Online chat rooms allowed all participants to communicate synchronously, and asynchronous communication via the message board allowed conversation threads to develop naturally. The teachers were encouraged to experiment with formative assessment in their own contexts (Wiliam, Lee, Harrison, & Black, 2004).

The EDK teachers focused on students who were experiencing difficulty in being able to identify letters of the alphabet. Two primary teachers focused on the decoding of words with first grade students and two looked at the classroom teachers’ use of formative assessment. These areas of inquiry were selected by the respective teachers.

The only identifiable difference in the professional development opportunities afforded the 17 EDK/Title 1 reading specialists in the district was that six participated in the formative assessment study and the other 11 did not. All EDK and Title 1 teachers followed the same core curriculum and administered the same benchmark assessments at the same intervals. The district used “scripted” curriculum programs in both Kindergarten and first grade to ensure the presentation of concepts at a specific pace and sequence.

Qualitative data sources (to answer research questions 1 and 2) included:

- Teacher online postings in response to questions (three progress reports and one final report over the course of the 2005-2006 school year),
- Notes from the three researchers from each face to face meeting (2 meetings at the university and 2 at the school district, spread throughout the year), and
- Notes from the Title I supervisor as she observed the teachers.

Analysis methods included drafting six within-case (teacher) summaries, testing conclusions by weighing them against all four sources (the teacher and the three researcher/observers) of evidence about the case, and drawing conclusions about the research questions in one cross-case (teacher) summary.

Quantitative data sources (test scores) were used to answer research question 3. In all cases, the primary focus of instruction in EDK was the learning of the letter names. First grade concentrated on blending sounds to make words (simple decoding).
All students in EDK (n=117) were tested in September, January and May using the DIBELS Letter Naming Fluency (LNF) measure.

First grade students (n=151) were tested at the same intervals using the DIBELS Phoneme Segmentation Fluency (PSF) measure.

Analyses methods included checking equivalence at pretest (September) and pre-post (September – May) with a t-test. Then, a mixed design ANOVA (pre-post comparisons for pilot and non-pilot groups) was run. “Pilot” students included all children served by a Title 1 teacher who was experimenting with formative assessment in this study; “non-pilot” students were served by other Title 1 teachers.

Results

A brief summary of the results is presented by research question. Full results will be in the paper.

(1) Teacher learning: Teacher learning about formative assessment

• began with “consciousness raising” (becoming aware that they already do some things that are formative),
• proceeded through skill-building (developing and using strategies to meet the needs of their own classroom contexts, mostly centered around more intentional recordkeeping and feedback, goal setting, and sharing information with students and/or the regular classroom teacher), and
• resulted in an increased formative assessment repertoire, plus the discovery (more powerful in some cases, even to the point of surprising some of the teachers) of the power of sharing information with students even as young as the K and 1 students in this study.

(2) Modified assessment practices: The six Title 1 teachers in this study chose to experiment with one or more of the following:

• Expanded monitoring and conferencing with students
• Letter cards (student files cards in a box for letters he says “slow,” “medium,” and “fast” – and “gold medal” for the ones he knows cold)
• Customizing letter-naming drills for students so any given drill included mostly letters known, and one or two unknown, to the particular student
• Keeping records of the feedback given to students during reading and giving students “goals” on the basis of these notes
• Progress cards (writing student goals on cards, observing and noting when students worked on their goals)
• Intentional comments to students regarding specific positive accomplishments
• Observing the regular classroom teacher to see how formative assessment uses were similar and different to their own work with students
• Attempting to construct a definition and observation tool for formative assessment in the classroom (this project was still on the drawing board when the school year ended)

(3) Results for student learning: In grade 1, there was no significant difference in DIBELS PSF pretest scores between students whose teachers were in the formative assessment group and those who were not ($p=.38$). All students improved over the year ($p=.00$); however, there was a significant interaction ($p=.02$) favoring the formative assessment group ($d = .63$). These findings were consistent with classrooms observations. As the study group progressed, at least four of the teachers began to demonstrate an awareness of the use of formative assessment in providing specific feedback that could be used to help students (1) better understand what they specifically knew and did not know about the decoding process, (2) recreate a successful decoding experience, and (3) self-monitor each decoding experience. Although they were following the instructional script of the reading program, these teachers began to look for specific indicators from each child that would provide the instructional compass for each lesson. For example, one student was decoding a word incorrectly because he could not distinguish between a lower case b and d. Another did not consistently and independently produce the short “i” sound. Both experienced difficulty with the word “dig,” but for entirely different reasons. As these teachers became more incisive in the use of formative assessment as an integral part of their instructional practice, they began to honor the interpretive “voice” of each student in the reading process. They began to look for the subtle differences in each of their students’ learning, and they began to help the students acknowledge their learning and the reasons for their successes.

In Kindergarten, there was no significant difference in DIBELS LNF pretest scores ($p=.43$) and, while all students improved during the year ($p=.00$), the improvement was similar for both groups ($p=.80$). This may be because the skill of letter naming is a far less complex process than the skill of decoding. The fact that EDK students received twice the instructional time as regular kindergarten students to learn the same number of letter names may have insured success regardless of the instruction methods used.

**Importance of the Study**

If these positive outcomes for six teachers in one district represent the kind of outcomes other teachers may have when they use formative assessment, the implications for teaching are dramatic. It is especially important to note that each teacher did somewhat different things with the information they received in their teacher professional development. The opportunity to choose what seemed important to work on in their own context was part of the reason for the professional learning, and probably for the student learning, outcomes. All of the participants developed a real working knowledge of the term “formative assessment.” Although they initially agreed that they all used formative assessment, but just didn’t know what to call it, as the study group process developed they realized that the depth of their initial understanding had been very shallow. The focus of teaching moved from covering content and following the script to masterfully using the feedback that students gave to hone each instructional lesson to its most purposeful state. Feedback given to students moved from the generic “Nice job!” to a specific accounting of what each student could do well and a rendering of the discrete skills necessary to improve future performances. Teachers became more focused on unlocking each child’s specific abilities and less focused on delivering a particular unit of instruction. Teachers and administrators developed a common language around the topic of formative assessments that allowed for a more scholarly discussion of instructional practices.
References


