

Linking Technology with Assessment, Are We Assessing What We Think We Are?

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Research Questions

- How does the use of handheld assessment differ from traditional assessment in the classroom (i.e., grade book records, anecdotal notes, etc.)?
- How does the use of handhelds support assessment in an inquiry-based, technology-rich classroom (e.g., frequency, accuracy, alignment with state standards, etc)?

Technology-integrated learning has been advocated for many years, and there is some indication that technology contributes to increased student achievement (Becker, 2000; Schacter, 1999). However, changes in measurement and assessment of student knowledge has not kept pace with the changes in the classroom due to technology use and constructivist pedagogies (Haertel & Means, 2000). Student activities that use technology-based and constructivist pedagogies demand more focus on assessing process, as well as evaluation of final projects. Keeping track of on-going student achievement using paper and pencil methods in the more active technology-based and inquiry classroom is potentially challenging. Technology may offer some solutions to more easily capturing student learning as it occurs.

The assessment technology under investigation in this study was Learner Profile (Learner profile™ assessment tool for educators, 2002). Learner Profile is designed to promote teachers' immediate recording of student achievement data through handheld technology that can later be downloaded to computer. Learner Profile supports rapid feedback through instant printing of individual students' records and student progress for parent and/or student conferencing. Through checklists and notations, Learner Profile supports assessment of specific local district, state, and national standards, as well as any academic or other assessment criteria specified by the teacher. This enables teachers to assess student learning holistically through both formative and summative assessments during observations, conversations with students in class, and review of student projects.

Findings

- The use of handhelds caused changes in assessment habits, in particular a shift from summative to formative assessment;
- Teachers found handheld assessment to be an improvement over paper and pen assessment methods, reporting that prior assessment habits didn't provide the detail evident in the handheld assessment;
- Logistic issues regarding the use of handheld assessment tools centered on when and how often to assess, because of the shift to formative assessment;

The use of handhelds precipitated a rethinking of assessment perspectives, i.e. what qualifiers are best when assessing student work? How will I know when repeated measures of student knowledge are enough to show mastery? What happens when students can show mastery in one way, but are not able to show their knowledge under different circumstances?