

Chapter 11

Using Technology in Self and Peer Reflective Assessment

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ABSTRACT

The use of technology in classrooms is influenced by teacher attitudes. This is particularly true about classroom elements relating to teacher assessment. The issue with technology and assessment has two parts: teachers may resist technology, and teachers may consider assessment a personal attack on their abilities rather than a constructive analysis of teaching and learning. The increasing accountability required in educational environments puts even more pressure on teachers to accept assessment and evaluation of their performance. Technology can be used to ease teachers into a stronger analysis of their own and peer evaluations, which are one key to improving teaching. Assessment must be internalized if teachers are to accept suggestions for improvement and create an environment of change.

INTRODUCTION: CHALLENGES

Teachers' beliefs about and perceptions of technology determine what technology will be introduced into educational environments and how that technology will be used. While much attention has been given to the use of technology in the delivery of instruction, not much has been paid to the use of technology to improve

that instruction through the use of peer- and self-reflective assessment. Though technology offers new and different ways to improve the delivery of instruction, technology may still be underutilized by both pre-service and in-service teachers in key elements of teacher training. This chapter will discuss the use of technology for self- and peer-assessment of teaching and ways in which teachers can use technology as a tool to improve teaching. Self- and peer-assessment experiences will be included for pre-service instructors, in-

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service trainers, classroom teachers, and central and school administrators to use in evaluating classroom interactions.

The lead chapter authors are a university professor and a school district professional who share their perspectives and experiences with teachers. The third author, also a university professor, has used videotapes and audiotapes as training tools for professional development with early childhood teachers and shares perspectives from teachers as they worked through this process. The authors provide insight into the development of technology as tools for peer- and self- assessment with teachers, offer suggestions, and provide resources for teachers. In the first section we share what we know about teachers of young children and technology and what we know about how attitudes influence the understanding and use of tools in educational environments. In the next section we discuss the use of peer- and self-reflective assessment in schools and how technology can strengthen this process. In the final sections of this chapter we share applications from real teachers and their experiences in using technology in peer- and self-reflective assessment and current resources. There is much written about reflective practice and teachers. This chapter was developed to focus on the extension of reflective practice to peer- and self-assessment, skills vital for building a learning community that supports teacher and student outcomes.

Objectives

From this chapter the reader will gain insight into how early childhood teachers' attitudes may influence the acceptance of technology as an educational tool and how this transfers to self- and peer-reflective assessment. The reader will also become acquainted with some of the issues and beliefs about peer- and self-assessment and some of the ways in which teachers use technology for reflective assessment. The reader will also be able to do the following:

- Develop an understanding of the value of using technology in self- and peer-assessment
- Identify both benefits and issues concerning using video as a self- and peer-assessment tool.

BACKGROUND: EARLY CHILDHOOD TEACHERS' ATTITUDES AND ACCEPTANCE OF TECHNOLOGY

There are few incentives to encourage teachers at all levels to use technology in general applications. In postsecondary settings, technology integration is not linked to tenure or promotion. In PK-12, technology use/expertise may be neither part of the hiring decision nor part of classroom evaluation procedures, and when used for evaluation, the expectations may be limited. The struggle to get a teacher to use technology is compounded when the teacher lacks interest in instructional technology, lacks skills in its use, or lacks the confidence to learn about it and try using it in the classroom. Doering, et al. (2003) found that pre-service teachers resisted using any technology that they did not fully understand. They were fearful because they were not expert with a tool that may challenge their view of their role in the classroom. Any or all of these dynamics may affect the classroom environment and ultimately affect students' attitudes toward technology.

Fans of space-age stories will recognize the phrase "final frontier" and understand that it means the last obstacle to be conquered. Ertmer (2005) suggested that teacher beliefs about technology may be the "final frontier" to be explored and that it was "impossible to overestimate the influence of teachers' beliefs" (p. 36) on their classroom practice. Ertmer described the school environment as rich enough to grow technology programs, noting that hardware and software are available; expendable supplies are available; tech support is available; Internet access is available, and communication links are in place. What remains as

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