Teachers’ and Students’ Perspectives on Good Teaching Using Technology in Elementary Classrooms

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ABSTRACT

This article describes good teaching with technology from both teachers’ and students’ perspectives through analyzing two distinctive cases of teaching practices with technology in K-12 settings. Data was generated from teacher interviews, classroom observation, student interviews, and student reflection journals. From the analysis of these data, the authors identified four categories of behavior that were considered emblematic of good teaching with technology: deliberate instructional design, enhanced engagement, adaptive instruction, and a respectful learning environment. In addition, while teachers restructured the curriculum and integrated technologies in a way that was more meaningful for students, teachers’ beliefs were embedded in their approaches towards instructional design and teaching practices, which resulted in the seamless integration of technology with sound pedagogy in a content-specific way. The results of the study provided practical guidelines for good teaching with technology and implications on what role technology should take in teaching practices.

KEYWORDS

Elementary School, Good Teaching, Pedagogy, Technology in The Classroom

1. INTRODUCTION

Rapid development in technology and the widespread use of social media have changed the educational landscape. However, despite the increased accessibility of resources, expanded communication opportunities, and enhanced collaborative capacity, not every class fully benefits from the new technology (Pittman & Gaines, 2015). It may be attributed to the discrepancy between what research suggests that teachers do and what teachers actually can accomplish. While previous literature seems to define exemplary technology-integrated teaching as one that embraces learner-centered teaching practices (Admiraal et al., 2017; Ertmer & Ottenbreit-Leftwich, 2010) and teachers’ constructivist pedagogical beliefs (Kim, Kim, Lee, Spector, & DeMeester, 2013; Liu, 2011), these findings do not readily match teachers’ performances using technology. For instance, even teachers who hold constructivist beliefs tend to implement lecture-based teaching due to their limited understanding of appropriately integrating technology (Liu, 2011).

Although a successful experience of using technology is essential for teachers to change their instructional practices (Miller, 2008), previous research failed to provide teachers with practical instructional guidelines for what will work best regarding technology uses in K-12 classrooms. Numerous studies quantitatively examined factors associated with teachers’ technology integration by using self-report surveys (e.g., Liu, Ritzhaupt, Dawson, & Barron, 2017). However, these studies neither described evidence on how technology promoted instructional practices nor explicating how...
teachers’ belief, knowledge, and prior experiences shaped their instructional decisions regarding the use of technology. Besides, these studies only focused on teachers’ perspectives without considering students’ perception, and thus limit our understanding about what good teaching with technology is in classrooms.

Therefore, using a qualitative approach, this study investigated two distinctive cases of technology use in K-12 settings and described evidence on the components of good teaching with technology as perceived by teachers and students; the study also examined the intersection of their knowledge, beliefs, and professional development experiences.

**2. RELEVANT RESEARCH**

**2.1. Good Teaching with Technology**

The existing frameworks for good teaching, in general, have defined best teaching practices without explicitly addressing how technology can promote or enhance those practices. Studies before the 1980s tended to have a narrower focus on good teaching, with an emphasis on teachers’ “teaching skills,” which remain important to this day with the modern framework of setting measurable learning objectives and meeting students’ learning needs (Center for Educational Leadership, 2012). However, recent literature is characterized by a more constructivist perspective on defining good teaching practices including learner-centered practices (Duarte, 2013). As such, the definition of good teaching varies following educational trends. Formulating a precise definition is even more challenging due to the relativity of the term “good” and the complexity and multiplicity of the term “teaching.” For example, some researchers define good teaching as encouraging learners to improve their knowledge (Johnson-Farmer & Frenn, 2009). While Morgan and Morris (1999) defined good teaching as stimulating student interests, explaining matters in an easy-to-understand manner, treating students in a friendly manner, and effectively controlling the class, Borich (2000) suggested that good teaching practices include delivering instruction clearly and concisely, utilizing various teaching methods, focusing on coursework, promoting active participation from students, and helping students achieve high academic performance. In a recent study, Larsen, Glover, and Melhuish (2015) found students’ perspectives on good teaching factors to be student-centered, such as classroom interactions that acknowledge students, encouraging and available instructor, and fair assessments.

Although there is less scholarly research regarding good teaching in K-12 settings (e.g., Ballantyne, Bain, & Packer, 1999), some studies also suggest constructivist elements as constituting good teaching practices in K-12 education. In a study examining award-winning teachers’ perceptions of what constitutes good teaching, four dimensions were identified: teaching as structuring learning, teaching as motivating learning, teaching as encouraging activity and independence in learning, and teaching as establishing interpersonal relations (Dunkin & Precians, 1992). Similarly, a review study identified six essential practices and attributes of high-quality teaching and learning: a) the teacher designs effective, standards-based instruction, b) the teacher delivers high-quality, student-centered instruction, c) the teacher promotes high levels of student engagement, d) the teacher uses assessment of student learning, e) the teacher uses a positive behavior management strategy, and f) there is clear evidence that students are learning (MacGregor, 2007). In a more recent survey study with elementary students and teachers, Billock (2015) found differences in students’ and teachers’ beliefs about good teaching while identifying a teacher’s ability, personality and relationship with students as common characteristics.

Constructivist teaching practices identified in previously discussed studies seem to be closely related to the ideal practices of technology-integrated teaching (Liu, 2011) since if adequately used, technology can transform learning to become more learner-centered by allowing students to become active knowledge creators (Jonassen & Reeves, 1996; Tondeur, van Braak, Ertmer, & Ottenbreit-Leftwich, 2017). However, which specific instructional strategies teachers should use to promote this transformation by using technology remains understudied, and further research is needed to develop the contextual understanding of instructional strategies using technologies.
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