Chapter 15

Using Video Capture and Annotation Technology to Strengthen Reflective Practices and Feedback in Educator Preparation

Christina M. Tschida  
East Carolina University, USA

Jennifer L. Gallagher  
East Carolina University, USA

Kimberly L. Anderson  
East Carolina University, USA

Caitlin L. Ryan  
East Carolina University, USA

Joy N. Stapleton  
Winthrop University, USA

Karen D. Jones  
East Carolina University, USA

ABSTRACT

In this chapter, the authors share the history of a video capture and annotation technology (VCAT) implementation and provide summaries of research findings to support its continued use and refinement. They also detail the multiple uses and particular objectives they aimed to meet with the technology across different content areas and even across multiple educator preparation programs, including a collaboration between a teacher education program and principal preparation program that was enabled by the technology.

DOI: 10.4018/978-1-5225-8009-6.ch015
INTRODUCTION

A crucial part of learning to teach is having opportunities to teach, receive feedback, reflect, and teach again in an authentic classroom setting. This cycle of instruction creates opportunities for teacher candidates to connect theory to practice and improve their instructional effectiveness (Darling-Hammond, 2010). However, teacher candidates' access to such opportunities and the importance placed on them can be dependent on a variety of factors outside the candidates’ control, such as the format of their courses (face-to-face or distance education), instructor implementation and expectations, size of their program, and the availability and quality of K–12 school practicum settings. Educator preparation programs have worked to mediate such factors and provide similar opportunities across clinical experiences for their candidates. One major mediator is the emergence and refinement of video capture and video annotation technologies for use in educator preparation. Video captures the complexities of learning to teach in ways that observations cannot, giving candidates and teacher educators a powerful and flexible tool for substantial reflection and dialogue about teaching (Marsh & Mitchell, 2014).

This chapter describes how faculty in a large rural university used video capture and annotation technology (VCAT) to meet varying needs across multiple educator preparation programs. While the other chapters in this collection have shared examples of technology-mediated learning in K–12 settings, here we demonstrate the power such tools can have in teacher education classrooms. The use of VCAT in specific courses will be shared with faculty insight into implementation, results for candidates, and lessons learned. In this chapter, we argue it is important for educator preparation programs to take advantage of technologically-mediated learning because it helps solve particular structural problems within teacher education and because it increases the skill and efficacy of teacher candidates. In addition, using VCAT and other technology-mediated learning in teacher education gives candidates powerful models of how their own learning can be enhanced via technologies. Having experienced the power of technologically-mediated learning as a student, they may be more willing to apply such tools in their own future teaching. Therefore, we present the experiences of faculty who provided these technologically-mediated learning opportunities for candidates as well as perspectives of the candidates themselves who participated in the courses using these tools.

After reviewing the relevant literature that grounds our use of video capture and annotation technology in teacher education, we explore the contextual factors that led our college to select this technology, illustrate its use across multiple courses across teacher candidates’ training, and demonstrate a powerful collaboration between teacher candidates and principal candidates within the college. We end with initial findings from our research on students’ perceptions of and growth from their use of this technology and the nature of the feedback being provided. The work shared here provides another example of the power of technologically-mediated learning and can serve as a model for other educator preparation programs looking to incorporate video technologies to enhance candidate learning and reflection.

VIDEO CAPTURE AND ANNOTATION TECHNOLOGY

The use of video in educator preparation has been around for many decades. Since the 1960s teacher educators have made use of video when engaging teacher candidates in microteaching activities and guiding peer reflection and feedback (Rich & Hannafin, 2009). Early on, the focus was often on identifying and developing distinct teaching skills that had been correlated to gains in student achievement
Related Content

The Use of Reusable Learning Objects to Enhance the Delivery of Veterinary Education: A Literature Review
[www.igi-global.com/article/the-use-of-reusable-learning-objects-to-enhance-the-delivery-of-veterinary-education/182302?camid=4v1a](www.igi-global.com/article/the-use-of-reusable-learning-objects-to-enhance-the-delivery-of-veterinary-education/182302?camid=4v1a)

Podcasting and Pedagogy
Ross Kendall (2014). *Mobile Pedagogy and Perspectives on Teaching and Learning* (pp. 41-57).  
[www.igi-global.com/chapter/podcasting-and-pedagogy/78658?camid=4v1a](www.igi-global.com/chapter/podcasting-and-pedagogy/78658?camid=4v1a)

JAMIOLAS 3.0: Supporting Japanese Mimicry and Onomatopoeia Learning Using Sensor Data
[www.igi-global.com/article/jamiolas-supporting-japanese-mimicry-onomatopoeia/40976?camid=4v1a](www.igi-global.com/article/jamiolas-supporting-japanese-mimicry-onomatopoeia/40976?camid=4v1a)

A Design Based Research Framework for Implementing a Transnational Mobile and Blended Learning Solution
[www.igi-global.com/article/a-design-based-research-framework-for-implementing-a-transnational-mobile-and-blended-learning-solution/136800?camid=4v1a](www.igi-global.com/article/a-design-based-research-framework-for-implementing-a-transnational-mobile-and-blended-learning-solution/136800?camid=4v1a)