

Chapter 79

Critical Thinking in Collaborative Video Annotations: Relationships Between Criticism and Higher Order Thinking

Craig D. Howard

 <https://orcid.org/0000-0003-2317-6896>

The University of Tennessee Knoxville, USA

ABSTRACT

Collaborative video annotation (CVA) combines media affordances to support critical thinking. A discourse analysis of preservice teachers' annotations in the process of a video-mediated observation of expert teaching revealed that critical judgements co-occurred with higher order thinking (HOT); however, criticism correlated less often with HOT than positive judgements of expert teacher practices. One hundred forty-one learners' small group discussions in CVA showed HOT annotations devoid of all judgment were the most frequent, and of HOT annotations that did contain criticism, applications of knowledge co-occurred most often with critical judgments, while analysis co-occurred most often with positive judgements, and intellectual modesty with mixed criticism. Results suggest that designs aimed at supporting critical thinking might benefit from expanded explanations of the purpose of observations and scaffolds to support the withholding of criticism.

INTRODUCTION

In this chapter, I recount how critical thinking occurred, or did not, in a preservice teacher computer-mediated activity. I used a discourse analysis methodology to study the content of learner text-based annotations placed atop a video that the preservice teachers had been assigned to watch and annotate. These interactions were captured via an automated program that scraped the preservice teacher video

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annotations off the YouTube server (Howard, 2012) and preserved the annotations' sequence, author, time of creation, and location in the video. The preservice teacher, computer-mediated intervention replaced live teaching observations with a video observation of an expert teacher in the act of teaching (Howard & Myers, 2010). I chose this strategy for a number of reasons. Advantages of the redesign of the observation activity included, but were not limited to, a shared video providing a common ground for learners to compare pedagogical insights, accommodating diverse learner schedules, and affording the professor of the course the ability to select teaching behaviors for display. The alternative practice also allowed more time for preservice teacher reflection, another area that is limited in live observations. This redesign not only provided a means to capture learners' interaction, but aligned with traditional practices in preservice teacher education, integrating reflection into practicing teacher observations.

Preservice teachers observe practicing teachers all over the country, every year. Using observation in preservice teacher education is a rich and well-developed strategy (Blackmore, 2005; Fanselow, 1987; Hammersley-Fletcher & Orsmond, 2004; Howard, 2012; Richards & Farrell, 2011; Subban & Round 2015; van Es, 2010). Scholars of education often cite the value of noticing as important in leading these observation activities (Barnhart & van Es, 2015; Erikson, 2011). Subban and Round (2015) advocated checklists to support noticing, while Richards and Ferrell (2011) stress the importance of noticing as a form of preservice teachers' acquisition of model teaching behaviors more generally. Fanselow (1988) advocated noticing the unwritten rules that govern classroom behaviors for both teachers and learners. Each of these noticing practices is accompanied by an emphasis on the value of reflection (Schön, 1987; 2017). Reflection on what is noticed is crucial for the learning that takes place in preservice teachers' observations of practicing teachers.

While all of these studies identify the strengths of observations in the education of teachers, I encountered a challenge in coordinating live observations for 141 preservice teachers, all with diverse student teaching schedules and often in dramatically different teaching contexts. I created this asynchronous design without a true knowledge of how it might play out. This study reports on my analysis of preservice teacher reflections that appeared as video annotations in the video observation activity. This discourse analysis describes how critical thinking related to higher order thinking (HOT) in these reflections. I highlight takeaways from this analysis that have impacted how I see critical thinking and HOT relating to each other in the context of this mediated activity. In reading a study like this, it is important to differentiate the design of the intervention from the design of the study (Boling, 2010). Therefore, I will review literature related to the design of the intervention, then present a description of the intervention itself. Thereafter I will present literature related to the analysis of the learner interactions, and my methodological procedures apart from the design.

LITERATURE THAT INFLUENCED THE INSTRUCTIONAL DESIGN

Unlike some other forms of inquiry, design inquiry does not search literature to find a gap; rather, designers collect precedent from all locations to find opportunity (Cross, 2018; Lawson & Dorst, 2013). The opportunity here was in new, converged technologies that could be used to support noticing and reflection in a preservice teacher video observation. Video-supported teaching observations afford opportunities for deeper understandings of teaching complexities (Baecher, Kung, Jewkes, & Rosalia, 2013; Baecher, 2010). Most often, the pedagogical objective of discussions is simply to experience the process of analyzing an instance of classroom practice (Calandra & Brantly-Dias, 2010; Korthagen &

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