Chapter 20 Online Student Discussions for Social Construction of Knowledge and Dialogue: A Review of Research

Johnny B. Allred

University of Arkansas, USA

ABSTRACT

Digital tools and practices are becoming more integral to what happens in classrooms at all levels, so it is helpful to examine how teachers and students are utilizing technology during literacy practices. This chapter presents a review of research regarding instructional practices and classroom environments that cultivate purposeful use of technology for literacy development. Specifically, this chapter investigates aspects of online conversations that promote social construction of knowledge, reflective dialogue, and increased reading comprehension; it also provides insights for educators who seek to enhance or transform the structure of their students' online conversations about assigned readings. This review of research is guided by the following research questions: (a) What are the general affordances of online discussions? (b) What types of comments are students making in such discussions? and (c) What are the observed effects of online discussions on reading comprehension?

INTRODUCTION

The definition of what it means to be literate in a modern, digital world is changing as quickly as the technologies we use to communicate and to learn. For example, the manner in which we read and the reading strategies we employ are becoming increasingly connected to digital platforms and tools. Research into the pedagogical impact of digital tools has been widespread and insightful, showing a potential need for teachers to reevaluate their stance towards New Literacies (Miller, 2013). An increased emphasis on multimodal projects in the classroom and the development of multiliteracies has helped students learn to produce, co-create, and remix in meaningful ways (Beach & Tierney, 2017). Such activities provide

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opportunities for collaboration, communication, creativity, and overall digital literacy development (Greenhow & Lewin, 2016). As literacy researchers consider the usefulness of digital technologies, emphasis should be placed on processes and environments that foster increased reading comprehension and critical, higher-level thinking.

As classrooms become more digital, it is important for educators to consider how to transfer effective face-to-face (F2F) literacy practices—especially activities that engage students and promote academic dialogue—into an online sphere. From a sociocultural perspective (Vygotsky, 1978), social interaction is foundational to learning, providing students with multiple perspectives and levels of understanding to which they would not have been exposed on their own. For example, research has shown that traditional F2F conversations about texts that incorporate students' background knowledge, require critical thinking, and model argument construction lead to greater reading comprehension (Garas-York & Almasi, 2017). The use of literature circles, where students discuss texts in small groups, can help with overall understanding, especially with low-achieving readers (Avci & Yuksel, 2011). But, because of the deictic nature of literacy in our digital world (Leu et al., 2011), continual research is needed that highlights effective literacy practices involving digital tools and processes.

This review synthesizes studies that have explored various methods for engaging students in online discussions using digital software, including discussion forums, blogs, wikis, and various popular social media platforms. The purpose of this review is not to extol any one digital tool or method, but rather to illuminate current practices in online discussions that promote productive dialogue and social construction of knowledge; in addition, this chapter suggests potential pedagogical shifts teachers may need to make to facilitate effective online discussions across various platforms. The following research questions guided this review of research: (a) What are the general affordances of online discussions? (b) What types of comments are students making in such discussions? and (c) What are the observed effects of online discussions on reading comprehension?

BACKGROUND

Online discussions that contain elements of social construction of knowledge can be viewed through the lens of sociocultural learning theory. Central to this theory is Vygotsky's (1978) research asserting that knowledge is socially constructed, especially through language, and that we gain and develop literacy by participating in literacy-rich environments that include interactions with more knowledgeable others, such as teachers, parents, or peers. Additionally, Vygotsky posits that cognitive growth "is more likely when one is required to explain, elaborate, or defend one's position to others, as well as to oneself" (p. 158). This supports the idea that a group of learners produces outcomes that are above and beyond what any individual student in the group could achieve on their own (Murphy, Wilkinson, Soter, Hennessey, & Alexander, 2009). The current chapter uses the term social construction of knowledge to describe this type of sociocultural learning process.

Learning in this sense—in which both group interaction and individual thinking are viewed as necessary ingredients for cognitive development—is a group effort and a group product; knowledge is not owned by the individual but is shared by the community and informs the tools that are created therein (Mercer & Howe, 2012). When discussing literature in an online forum, for example, this type of learning is seen as students post their thoughts for all to see, consider others' ideas, and attempt to negotiate differences or disagreements in a productive manner.

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