Chapter VII

A Constructivist Framework for Online Collaborative Learning: Adult Learning and Collaborative Learning Theory

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Abstract

The purpose of this chapter is to review and discuss theoretical perspectives that help to frame collaborative learning online. The chapter investigates literature about the type of learning and behavior that are anticipated and researched among participants learning collaboratively and discusses how these attributes explain computer-supported collaborative learning. The literature about learning is influenced by perspectives from a number of fields, particularly philosophy, psychology, and sociology. This chapter describes some of these perspectives from the fields of cognitive psychology, adult learning, and collaborative group learning. Recent research into computer-supported collaborative learning that applies these theories will also be discussed.
Introduction

Computer-supported collaborative learning (CSCL) is an emerging paradigm gathering a research focus of discussion from a range of disciplines. Lipponen (2002), discussing the foundations of this new and emerging focus of research and its differing interpretations, traces its short history as an academic discourse and explains many of the differing concepts of collaboration that it represents. This chapter explores the theoretical background to collaborative learning, reviewed to frame and explain a research study into collaborative learning in a distributed computer-supported environment. The theoretical ideas explored here, also represented in the CSCL literature, are placed in a broader context of educational literature and discussed in detail. The chapter will focus on online collaborative learning from within an interpretive framework, from the perspective that knowledge is subjective and socially constructed. The constructivist and social constructivist viewpoints about learning and knowledge construction are presented here first through an investigation of relevant literature about constructivism.

The field of adult learning, particularly in higher education contexts, is also explored with examination of research into the nature of the facilitation of learning by group interaction and the theories that underpin this area of study. The significant contribution of the social nature of cognition as theorized by Vygotsky (1978) to the theory base underlying collaborative learning is reviewed, with the importance of dialogue within an online community of learners discussed.

Constructivist Perspectives about Learning

The literature about a constructivist approach to learning that is described here covers a diversity of ideas from cognitive developmental theory to research in adult learning, from collaborative and group learning to educational technology and instructional design. The theoretical perspectives of learning and knowledge through which these different disciplines and studies have been reviewed are the principles of constructivism and particularly social constructivism. Constructivism is perceived differently across the educational literature, ranging from being called a theory of epistemology or a theory of learning, to being described as a philosophy or approach underlying a range of theories of learning. Constructivism is considered here to be a set of beliefs about knowing that become a perspective for understanding learning.

Definitions of Constructivism

Within his discussion of autonomous and individualized adult learning, Candy (1991) described constructivism as “a broad and somewhat elusive concept” (p. 252) and wrote of the irony that the discussion about constructivism, with its multiple perspectives, has
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