Chapter 7.13
E–Social Constructivism and Collaborative E–Learning

Janet Salmons
Vision2Lead, Inc., USA & Capella University, USA

ABSTRACT

Social constructivism is an established educational theory based on the principle that learners and teachers co-construct knowledge through social processes. This chapter proposes an updated theory, e-social constructivism, that takes into account the milieu of electronic communications in which e-learning occurs. Thinkers such as Dewey, Piaget, Vygotsky, and Bruner, who laid the theoretical foundations of social constructivism, wrote in a time when face-to-face interactions were the basis for instruction. The works of these writers are reviewed in this chapter. Together with the results of the author's phenomenological study of collaborative e-learning, they form the basis of e-social constructivist theory. The author uses grounded theory and situational analysis to derive and support e-social constructivist theory. This chapter discusses the implication of that theory for research, teaching and instructional design.

INTRODUCTION

In online classes, interaction between learners and instructors occurs electronically. Online classes may expect learners to interact through discussions involving the whole class, in small groups, or in pairs. When assignments are designed for completion by collaborative teams, the objective is for peers to learn from and with each other. This instructional approach, called *collaborative e-learning*, is defined as: "Constructing knowledge, negotiating meanings and/or solving problems through mutual engagement of two or more learners in a coordinated effort using Internet

and electronic communications"(Salmons, 2008, p. 131).

The rationale for including highly interactive collaborative assignments is usually supported by references to the theory of social constructivism. A core notion of constructivism is that knowledge has a subjective dimension because people construct meaning based on their relationships with the world. Each individual learner imposes meaning on his or her experience. A teacher cannot impose meaning on learners. Social constructivism focuses on the social phenomena that occur when conceptual schemes are transmitted by means of language. From a social constructivist's view, knowledge is not simply constructed, it is co-constructed. Constructivism is considered antithetical to positivism or objectivism, the theoretical position that explanations must be empirically verifiable and knowledge exists independent of our own perceptions of it (Schutt, 2006). Positivist world views translate into instructional theory based on the assumption that the instructor transmits knowledge through direct instruction (Arbaugh & Benbunan-Fich, 2006).

Theories of social constructivism have their roots in the thinking of Dewey, Piaget, and Vygotsky and Bruner. These theorists described social learning that took place face-to-face in classrooms with children. To what extent do their theories support and explain social learning in online classrooms at the college level and with adult learners? What new principles are needed? The author proposes e-social constructivism as a framework for answering these questions.

METHODOLOGY

Employing phenomenological, grounded theory and situational analysis methods, this chapter meshes analysis of two sets of data. One set of data is derived from a theoretical sample of literature. A second set of data is drawn from in-depth interviews the author conducted with a purposeful sample of experienced online educators.

Phenomenological research methods provide a way to investigate human experience through the perceptions of research participants. Theorist Husserl distinguished between "noema," the phenomenon which is experienced and "noesis," the act of experiencing the phenomenon (Husserl, 1931) In the author's study, phenomenological research methodology provided a structured approach for inquiry into the perceptions of success factors for instruction using collaborative e-learning. The four basic steps of phenomenological research described by Moustakas (1994) provided a methodological framework for the study. The author used in-depth dialogue with research participants at each of the four stages of the process: preparing to collect data, collecting data through in-depth interviews, analyzing data, and reporting outcomes. The study investigated noesis, the experiences of teaching with collaborative methods online, and noema, the organization and design of the learning activities participants used to promote collaboration.

Grounded theory complements phenomenological research. To apply this theory, researchers build on the understanding of individuals' experiences derived through phenomenological methods to generate theoretical principles (Creswell, 2007; Straus, 1987). They look at categories discovered in the data and construct explanatory theoretical frameworks, which provide abstract, conceptual understandings of the studied phenomena. Situational analysis is a style of grounded theory. Situational analysis looks at the social *situation* while grounded theory looks at social *process*. Situational analysts diagram elements in the research *situation* to capture the complexities and show relationships in the data. Theory is thus "grounded" in the data from participants who have experienced the phenomenon Grounded theory can help explain practice or provide a framework for further research and more formal theory development.

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