# Chapter 7.15 Did We Become a Community? Multiple Methods for Identifying Community and Its Constituent Elements in Formal Online Learning Environments

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# **ABSTRACT**

To understand the nature of formal virtual learning communities in higher education, we are employing a variety of user-centered evaluation approaches to examine methods for determining whether a community exists, and if it does, to isolate and understand interactions among its constituent elements, and ultimately to build a model of formal virtual learning communities. This chapter presents the methods we are employing to answer these seemingly simple questions, including user perceptions of community (Sense of Community Index, Classroom Community Scale), interaction analysis (density, reciprocity), content analysis (transcript analysis, interviews, focus groups), paired-comparison analysis (Thurstone scaling), and community modeling techniques (Bayesian Belief Network analysis).

# INTRODUCTION

This chapter grew out of a growing concern we had about whether "community" was a useful metaphor for understanding online learning environments, and whether there was any precision in the application of the metaphor. It seems as though the label of learning community is used widely and indiscriminately to describe a variety of online learning environments, from rigid prescribed online classrooms to completely voluntary chatrooms. In addition, while there have been a number of solid and valuable contributions to methods for evaluating online learning environments, they necessarily focus very sharply on specific perspectives of community such as overall user perceptions of community (e.g., Chavis & Wandersman, 1990; Rovai & Jordan, 2004), content analysis of transcripts (e.g., Jeong, 2004;

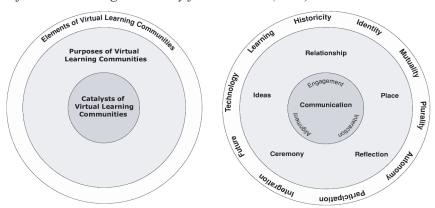


Figure 1. Model of virtual learning community from Schwier (2001)

Rourke, Anderson, Garrison, & Archer, 2001), measures of interaction (Fahy, Crawford, & Ally, 2001; Prammanee, Chapter XIV, this volume), or reports of experiences and difficulties by participants and instructors (e.g., Dykes & Schwier, 2003; Murphy & Coleman, 2004). While each of these approaches provides a useful lens into the operation of an online learning environment, none provides a complete picture of how online learning communities operate. We sensed that these approaches could be used in concert with others to address the questions of whether online communities exist, what their constituent parts are, and how these elements interact. Ultimately, we hope to create a method of modeling formal online learning communities that is drawn from experience, and robust enough to be adapted to a range of online learning communities.

The notion of using community as a framework for understanding group learning is largely drawn from social learning theory (Lave & Wenger, 1991; Vygotsky, 1978; Wenger, 1998). Learning is proposed to be occurring in all kinds of communities, formal or informal, physical or virtual (Wenger, 1998; Schwier, 2001). Currently, virtual learning communities are gaining wider recognition among researchers as vehicles for knowledge creation and transformation (Daniel, Schwier, & McCalla, 2003; Daniel, Schwier & Ross, 2005; Paloff & Pratt, 1999; Preece, 2000; 2002). Despite

this growing interest, there are limited theories informing our understanding of what comprises community. In addition, the over-reliance by researchers on transcript analysis to the exclusion of other methods of evaluation results in a limited lens through which to view community. We contend that community can be best understood through the members of the community, and more specifically through a combined analysis of their perceptions, interactions, and artifacts, and by using models to interpret the interactions among emergent community variables.

Our analysis was initially informed by a model of virtual learning communities (VLCs) proposed by Schwier (2001) that includes catalysts, elements, and emphases of VLCs (see Figure 1). The purpose was not to validate the model, but to use the elements proposed in it as a starting point for understanding the nature of community that developed in the formal learning environments we observed. Ultimately, our goal is to build a new model of formal VLCs that grows out of practice and the comprehensive observation and analysis of online learning environments. In this chapter, we will use preliminary data to illustrate the procedures we are using, but it is premature to draw firm conclusions from the data at this point; analysis is at an early stage, and we are using the data to make sense of the methods we are employing.

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