Chapter 109 Maximizing the Social Dynamics, Work Processes, and Target Outcomes of Learning Groups Online: A Pre-"Research Design" Exploration

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ABSTRACT

In formal learning in higher education, online learning groups are used to help learners attain various learning objectives in a learning domain and outside that domain. Social learning is set up to benefit the following: enhanced distributed collaboration, intercommunications, co-exploration, co-inquiry, co-design, diverse thinking, critical thinking, and other capabilities. Through a review of the literature and analysis of years of learning management system (LMS) data, this work offers some early observations of potential variables for study (studied individually or in concert) to better understand how to maximize learning groups online (the social dynamics, work processes, and target outcomes), as part of a pre-"research design" exploration. Ultimately, different levers in the design and support of online learning groups are seen to affect their efficacy in various online learning contexts.

INTRODUCTION

When designing an online course, in order to ensure that the learning is "high-tech high-touch," online learning involving human contact, many faculty design ways for themselves and learners to communicate social presence. There may be auto-biographical descriptions. There may be fun early-in-the-term discussion assignments, such as two lies and a truth about themselves, and then follow-on interactions among

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the learners. There may be opportunities for learners to offer some intriguing details about themselves. Some of the assignments may bring in the personal.

Another high-touch angle is to enable learners to engage with each other, such as through online discussions, web conferences, virtualized events (like speakers), and digital field trips. Another approach is to have learners interact with each other in group work, which may involve co-learning, co-research, copresentations, co-design, and other learning activities. In many cases, the learner groups may share some of the products of their shared work, such as in the form of a presentation, a slideshow, a short essay, or some combination of learning artifacts. Some form of group learning exists in most current educational programs, including "project groups or on-line discussion groups" (Beckmann, Wood, Minbashian, & Tabernero, 2012, p. 624). However, there has been resistance to group work in classrooms (Isaac, Mar. 2012), based on the sense that such work may be effortful.

In more complex curricular setups for group learning, the work may involve a sequence of assignments, with escalating difficulty in some cases (escalatory learning), with differentiation of activities in some cases (incremental additive), and other setups. Beyond group work trajectories, another variation is to bring in outside experts or guests to serve within the groups, or to assess the learner work from the groups. Some online group work exists as a one-off; in other cases, they may last through a quarter or a semester, or over multiple formal terms, even through a whole degree program, in some cases. Some group assignments involve hard problem solving, in some cases, without a known answer to encourage diverse thinking and exploration. In other cases, the hard problems are real-world ones which will require collective action to solve, such as environmental problems (Ban, Boyd, Cox, Meek, Schoon, & Villamayor-Tomas, Sept. 2015, p. 35).

In some cases, the learners themselves define the parameters of the group work and generate their own assessment methods. Some groupwork involves engaging in team competitions to solve particular challenges or to create particular digital or other contents (designed games, recorded videos).

The variations of group work for online learners are many in formal higher education teaching and learning. "Group learning" has been defined in various ways by different researchers, including "a relatively permanent change in the team's collective level of knowledge and skill produced by the shared experience of team members" (Ellis, Hollenbeck, Ilgen, Porter, & West, 2003, p. 822, as cited in Wilson, Goodman, & Cronin, Oct. 2007, p. 1042). Another construct compares the creation of individual knowledge vs. collaborative knowledge, both within groups. The researcher created a "multi-theoretical, interdisciplinary model called *Multi-grain collaborative knowledge construction* that concerns how individuals and groups co-elaborate knowledge during group interactions" (Lund, 2019, p. 1). This model captures how knowledge is built upon and elaborated on in groups, at both the individual and collaborative levels, and are mediated through socially regulated interactions, such as verbal exchanges (Lund, 2019).

A simpler version suggests that group learning involves the interaction between "sharing, storage, and retrieval" (Wilson, Goodman, & Cronin, Oct. 2007, p. 1052). Effective group learning requires committed members, effective processes, "group storage systems with strong indexing, filtering, and maintenance capabilities" (Wilson, Goodman, & Cronin, Oct. 2007, p. 1048), and other aspects.

Technological Affordances for Online Learner Group Work

Over the years, the group capabilities of learning management systems (LMSes) have included more enablements. A basic set of affordances include the following:

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