Utilizing Activity Theory as a Framework to Evaluate Globally Dispersed Teamwork in a Retail Interior Design Studio

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Abstract
Design projects are becoming global, and utilizing digital technology for communication among team members is important (Bender, 2005). Providing authentic learning experiences for interior design students helps prepare them for real world challenges in the workplace, where design firms have multiple offices around the world. In this study we employ activity theory (Choi & Kang, 2010) as a framework to evaluate a team's communication activities and how these activities predict the team's success.

Disciplines
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Utilizing Activity Theory as a Framework to Evaluate Globally Dispersed Teamwork in a Retail Interior Design Studio

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ABSTRACT

Design projects are becoming global, and utilizing digital technology for communication among team members is important (Bender, 2005). Providing authentic learning experiences for interior design students helps prepare them for real world challenges in the workplace, where design firms have multiple offices around the world. In this study we employ activity theory (Choi & Kang, 2010) as a framework to evaluate a team’s communication activities and how these activities predict the team’s success.

An interior design program at a large Midwestern university in the United States offers a semester study abroad experience in Italy. Both the Italy studio and the US studio work on the same design problem in teams of three to four students. The teams are a mixture of US based students and Italian based students where they utilize a collection of online and digital tools for collaboration and communication within teams.

Activity theory is a philosophical and multidisciplinary framework to research various human behaviors. In activity theory, learning is viewed as a social activity and the basic unit of analysis is an activity (Kaptelinin, 1996). An activity system contains six components: subjects, objects, tools, rules, division of labor and community (Engeström, 2000). Choi and Kang (2010) defined and examined three activities of teams: learning behaviors, conflicting factors, and facilitating factors.

This research study includes the following research questions:
1. Examining learning behaviors, conflicting factors, and facilitating factors (Choi & Kang, 2010), what are the differences in high and low performing dispersed groups in their online communication activities?
2. Does frequency of learning behaviors, conflicting factors, and facilitating factors predict a dispersed design team’s success?
3. Are there differences in communication tool usage between the low- and high-performing groups? Do multiple communication tools facilitate or hinder the flow of information? How important is the verbal and facial interaction (skype) compared to just dropping the files or interact by writing (mails/blogs)?

Participants in this study include 54 junior level interior design students, where 20 students are in Italy and 34 students are in the United States for the life of the project. The participants are guided by two European instructors in Rome, and two American instructors in the US.

Using a constant comparative method (Zenzin & Lincoln, 2005), a coding scheme was generated and emerging themes were identified in learning behaviors, conflicting factors, and facilitating factors in the online collaborations of the two highest and two lowest performing groups. The data was organized to calculate the frequency of each code and by five phases of the project based upon the deadlines outlined in the project description.

At the end of the project, teams were divided into two groups—high performing and low performing teams, based on their final project grades. Results indicated that the high performing groups witnessed less conflicting factors, included more facilitating and learning factors than the low performing groups. High performing groups also indicated more verbal and facial interaction than the low performing groups, which relied more on file sharing than more dynamic and direct interaction.

REFERENCES (APA)


