Using Activity Theory to Conceptualize the Design of the Learning Community of Inquiry in Cyberspace

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Abstract

Online discussions are gaining momentum as a learning method in higher education with the widespread integration of online learning management systems such as blackboard and blackboard vista in university courses. Design plays an important role in the success of online discussions. This presentation introduces a design framework for online discussions – Activity Theory and outlines each of the essential design elements in online discussions.

Keywords

online discussions, activity theory

Introduction

It is well acknowledged that the class discussion is the cornerstone for student learning in all disciplines. Effective discussions trigger student higher order thinking skills and improve student learning of course content (Meyer, 2003; Thomas, 2002). The online discussion overcomes the limitations of the face-to-face discussion. The online discussion board allows students anytime and anywhere access. Furthermore, the online discussion is text-based, promoting more thoughtful discussions as students formulate and compose postings. Currently, the online discussion is gaining its momentum in its use as a learning method in university courses. As an instructor teaching at the university, I have bee experimenting with online discussions in my courses. In this presentation, I would like to share my experience in designing effective online discussions.

Design Framework

Design plays an important role in building the online learning community of inquiry. Online discussions are not unfocused chatters. Effective online discussions need to be situated in the learning community of inquiry.

Activity Theory is a conceptual design framework for community-based learning activities. Activity Theory is built on the work of Russian psychologist Lev Vygotsky. Activity Theory emerged in reaction to the behaviorist approach that dominated the field of psychology at the time. Since 1980’s, Activity Theory has been gaining popularity in instructional design involving the use of technology. Activity Theory emphasizes the role of social factors in human learning and considers that human activities are mediated by social-cultural tools such as artifacts, instruments, signs and languages.

The Activity System (figure 1) has a hierarchical structure and contains five major components: (1) Subject; (2) Object; (3) Tools; (4) Rules; and (5) Roles. The bold lines in the figure below (figure 1) represent mediation. Subject is a participant or a group of participants involved in the activity. Object is the goal to be achieved. “An activity is undertaken by a human agent (subject) who is motivated toward the solution of a problem or purpose (object), and mediated by tools (artifacts) in collaboration with others (community) (Ryder, 2008).

With the lens of this framework, we can conceptualize the essential elements in designing community-based learning activities. These essential elements are (1) tools, (2) rules, and (3) roles. Tool mediates between subject and object. Tools are to be used by the subject to achieve the object. By incorporating into the process, tool alters the flow of participants’ mental functions. Rules mediate interactions of participants in a community. It is the protocol abided by the community members in the activity. Guided by the rules, community members work collaboratively toward the object. Roles mediate the group members in the division of labor in the activity toward the object. The rest of the paper outlines each design element.
Tools

Tools mediate between subject and object. To put it another way, tools help the subject work toward the object. Online learning management systems such as blackboard or blackboard vista are widely integrated in university courses. When designing the online discussion, you need to spend time familiarizing yourself with all the tools available in the learning management system. You need to consider the following questions in terms of tools: (1) What tools will you need to promote the online discussion? You do not have to accept the default course menus. You can add or subtract course menu buttons to fit your purpose. In general, you do not want to have too many menu buttons to confuse students. However, it is essential that you add necessary course menu buttons you will need for the online discussion. (2) What kind of privileges are you going to give to or deny your students? For example, are you going to allow students to modify or delete their messages? What are advantages and disadvantages for doing so? (3) Have you fully utilized the tools available on the system? How can you maximize the uses of these tools? (4) Do you need to give your students a technology orientation? Although these online learning systems are user-friendly, it cannot be assumed that all the students can use these tools without problems.

Rules

“Rules” mediate subject and community. Rules establish the norms in the learning community for behaviors of its members. In making rules, you need to consider the following questions: (1) What rules should you make to avoid pitfalls in the online discussion referred to in the literature? For example, the literature review points out that student participation is always a problem in online discussions. Should rules be made to make participation compulsory? (2) What rules should you make to promote the cognitive engagement of students in the online discussion? The major purpose for online discussions is to promote student learning. Students gain better understanding of course materials through online discussions. Rules should be made to maintain the quality of student postings and discourage shallow and superficial messages. (3) What rules should you make to promote social presence in the online discussion? Social support plays an important role in promoting cognitive presence. Within a learning community of inquiry,
learners should feel free and comfortable in articulating their ideas. Each of the community members should feel respected, valued and connected with each other.

Roles

Roles mediate between community members and object. Community members divide the labor in collaboratively working toward the object. “Role” is a key factor for the success of the online discussion especially when the learning task leverages on the varying levels of expertise and competence of the community members (David & Chen, 2001). You need to consider the following roles in online discussions: (1) What roles should you play as an instructor and a facilitator? In what situations should you intervene? More importantly, in what situations should you not intervene? The Instructor is often viewed as an authoritarian figure. The intervention, if not done appropriately, might suppress student voices and undermine the potential for student learning through the online discussion. (2) What are student roles? Would you like to have students to play roles of facilitators? In the online discussion, roles for facilitators can be shared between the instructor and students. Should you assign student roles as facilitators? How often should you rotate student roles as facilitators? (3) What are roles of group leaders? It is likely that you’ll divide the class into groups for the online discussion. It should not be assumed that group leaders know how to assume their roles. In general, the role for group leaders is to coordinate group discussion activities. They speak through the group, not for the group. It is necessary to specify the role of group leaders to minimize unnecessary misunderstanding and confusion.

Conclusions

This brief paper introduces Activity Theory as the design framework for online discussions and outlines each of the essential elements in the design. More detailed discussions on each essential element are available in the powerpoint presentation at this conference.

References


