Constructivist eLearning Activity

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Cool Tool

There are innumerable software applications available on the Internet today that are not only interactive but, in fact, constructivist. Constructive and collaborative websites and apps together have acquired the name "Web 2.0 tools" (Lee & McLoughlin, 2010, p. 61). Cool Tool is a constructivist e-learning activity designed to meet the following objectives:

- students will familiarize themselves with several Web 2.0 tools,

- students will understand and explain how to use basic features of one Web 2.0 tool,

- students will create a project using that Web 2.0 tool, and

- students will practice connecting with classmates on Web 2.0 tools.

Cool Tool is an activity that can be used with any age group that can already read and write at a middle school level. It should be noted here that many Web 2.0 tools (especially those with social networking components) have minimum age requirements in order to create accounts. The instructor can create class accounts for under-aged students to use, knowing that students are highly unlikely to abuse others or be abused in a shared account.

This version of Cool Tool is written for secondary online students of Connections Academy, a web-based K-12 education provider. The basic instructions and the grading rubric should be provided both in written form on the learning management system (LMS) and in verbal form during the weekly synchronous class-wide webinar. Students are instructed to research and familiarize themselves with several Web 2.0 tools. The instructor may provide a lengthy list of suggested tools for the younger students if needed. Students are required to post a

discussion thread discussing the purpose of three "Cool Tools" and respond to threads of two

classmates. Students are then directed to choose one tool to research and practice using. They

should write an explanation of how to use basic features of this tool, based on both research and

personal experience. Feedback shall be given on rough drafts before the students move on. To

create their project in the Web 2.0 tool, students must use their chosen tool to teach others how to

use it. Students should include many of the basic features of the tool in their project and may use

their written explanation as a script. Once the projects are completed, students will share them

with each other and the instructor on the class wiki. Each student will be required to comment on

three classmates' projects, from within the project. The instructor will be available throughout

the duration of the project to answer questions and make suggestions about the assignment.

According to Lee & McLoughlin (2010), many educators see magnificent potential in the

application of Web 2.0 tools for distance learning. With these tools, students can enhance "their

learning experiences through increased connectivity, customization, personalization, and rich

opportunities for networking and collaboration" (Lee & McLoughlin, 2010, p. 62). Technology

is used in Cool Tool in many of the ways promoted by Jonassen, Howland, Marra & Chrismond

(2010), such as "to support knowledge construction for producing organized, multimedia

knowledge bases by learners" as they construct knowledge about a Web 2.0 tool and produce a

project using that tool to showcase their new knowledge base, "to support learning by conversing

for discussing, arguing, and building consensus among members of a community" as they post

and reply to each other in both the discussion board and in classmates' projects, and "to support

learning by reflecting for helping learners to articulate and represent what they know" (para. 7)

as they articulate and represent their new knowledge both in writing and in a Web 2.0 project.

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In working through the Cool Tool activity, students achieve the social and teacher presences of the CoI model (Garrison, Anderson & Archer, 2010) through peer support both in the LMS discussions and Web 2.0 tool comments and through maintained contact with the instructor. Technology facilitates instructor contact in that the student-instructor connection is maintained through the online LMS (instructor-written introduction to activity, written activity instructions and rubric, the weekly synchronous class-wide webinar, assigned discussion board posts, question/answer discussion threads, rough and final draft submission, and project grade/feedback), the class wiki (project link submission), the Web 2.0 projects (instructor comments within the project), and telephone/Skype conferences if necessary. Students achieve the cognitive presence of the CoI model as they construct their own knowledge concerning technological tools they can use to enhance their learning. These Web 2.0 tools are likely to be around for a while, and students will benefit in future courses from the skills learned in these technologies now.

"Research agrees that constructivism learning theory, which focuses on knowledge construction based on learner's previous experience, is a good fit for e-learning because it ensures learning among learners" [1] (Harman & Koohang, 2005; Hung, 2001; Hung & Nichani, 2001; Koohang & Harman, 2005 as cited by Koohang, Riley, Smith, & Schreurs, 2009, p. 91). Constructivism learning theory shapes the delivery of Cool Tool both in the underlying assumption of the nature of knowledge and in the pedagogies advocated by the learning theory. According to Harasim (2012), constructivism explains that students construct their own knowledge and understanding of their surroundings through their experiences and reflections, and social constructivism in particular explains that a guide supports students by providing tools necessary for students to construct that knowledge, via Vygotsky's zone of proximal

development. In Cool Tool, students are asked to construct their own knowledge of Web 2.0

tools by asking questions concerning the purpose of the tools, engaging with the tools,

experiencing basic features, and reflecting on what they learned by putting their new knowledge

into words. They are also encouraged to construct knowledge socially by dialoguing with

classmates concerning their new knowledge and understanding, both in the discussion threads

and in classmates' projects.

Constructivist learning theory has been put into practice internationally for many years

now and has shown its worth by producing students with higher-order thinking skills rather than

students trained to reproduce by rote under behaviorist learning theory (Koohang et al, 2009, p.

93). Constructivism has also shown that knowledge is not only something to be passed from

teacher to student in engaging ways as per cognitivist learning theory, but rather something that

is created by the student internally (Duffy & Cunningham, 1996, as cited by Harasim, 2012, p.

61). These major changes in pedagogy are the hallmark of constructivist learning theory and

form the heart of this constructivist e-learning activity.

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References

Garrison, D. R., Anderson, T., & Archer, W. (2010). The first decade of the community of

    inquiry framework: A retrospective. *Internet and Higher Education, 13,* 5-9. Retrieved

    from https://learn.umuc.edu/d2l/le/content/111461/viewContent/4421717/View

Harasim, L. (2012). Learning theory and online technologies. New York, NY: Routledge.

Jonassen, D., Howland, J., Marra, R.M., & Crismond, D. (2010). "How does technology

    facilitate learning?" Retrieved from http://www.education.com/reference/article/how-

    does-technology-facilitate-learning/ Excerpt from Meaningful Learning with Technology,

    by D. Jonassen, J. Howland, R.M. Marra, & D. Crismond, Pearson Allyn Bacon Prentice

    Hall, 2008 edition, p. 5-10.

Koohang, A., Riley, L., Smith, T., & Schreurs, J. (2009). E-learning and constructivism: From

    theory to application. *Interdisciplinary Journal of E-learning and Learning Objects,*

    5, 91-109. Retrieved from http://ijello.org/Volume5/IJELLOv5p091-109Koohang655.pdf

Lee, M. J. W., & McLoughlin, C. (2010). Beyond distance and time constraints: Applying social

    networking tools and Web 2.0 approaches to distance learning. In G. Veletsianos

    (Ed.), *Emerging technologies in distance education* (pp. 61–87). Retrieved from

    http://www.aupress.ca/books/120177/ ebook/04_Veletsianos_2010-

    Emerging_Technologies_in_Distance_Education.pdf

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