

Technology Project Rationale

A workshop on Massive Open Online Courses

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EDCI 890

Spring 2014

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Overview of the MOOC workshop

This workshop is a, hands on bring your own laptop workshop, designed to introduce Massive Open Online Courses to high school students and adults. The workshop will introduce students to the concept and practice of learning and participating in MOOCs. A brief overview of MOOCs will be provided; which includes showing an inspirational Ted Talk video by Daphne Koller. Students will then talk to Mr. Hamza Al-Kindi, an experienced MOOC student who will be joining the discussion from his hometown in Karachi. Mr. Al-Kindi will discuss his experience with MOOCs and give recommendations for new MOOC students.

The workshop will also focus on the best practices for a successful online collaborative learning experience. Students will be trained in the use of several online collaboration tools, which are necessary to succeed in a collaborative MOOC environment. Students will have hands on experience with Google Plus, Google Drive and Google Hangout. Students will also learn the best practices for working with an online team. Students will have the chance to sign up for a MOOC of their choice and create or participate in their own MOOC project. The one-day workshop is a fast paced, high intensity workshop.

Rationale for Method of Instruction

This workshop is based on cooperative learning theory and incorporates cooperative leaning methods of instruction. The workshop requires students to collaborate using collaborative tools such as Google Drive, Google Hangout and Google Plus. It also incorporates structured class discussions. This form of cooperative learning is highly

encouraged since it is known to provide room for presenting ideas and explanations and eliminate misconceptions (Barron & Darling-Hammond, 2008).

Learning theories and the MOOC workshop

I. Bloom's Revised Digital Taxonomy and the MOOC workshop

Bloom's Learning Taxonomy was developed by a group of educational psychologists who were headed by Benjamin Bloom. The group developed a classification of levels of intellectual behavior that are significant in learning. The model identifies six levels of cognitive behavior and is ordered in the form of a pyramid from lowest (at the bottom) to highest (at the top). The lowest possible level is the recall or recognition of facts. The levels are increased in complexity, to the highest order, which is evaluation. The six levels are:

- 1- Knowledge
- 2- Comprehension
- 3- Application
- 4- Analysis
- 5- Synthesis
- 6- Evaluation

A new group of cognitive psychologists, lead by Lorin Anderson who is a former student of Bloom, updated the taxonomy to make it more relevant to the 21st century. The new taxonomy includes a higher level of cognitive performance which they classified 'Create'.

The following graph shows the 6 layers of the revised Bloom's Taxonomy



(Overbaugh, Schultz, 2013)

In the MOOC workshop the levels of Bloom's Taxonomy incorporated in the workshop are as follows:

2- Understanding: Students will understand the principles of effective online teamwork including the best and worst practices of online teamwork. Moreover, they will understand the importance of MOOCs in networking and forming global relationships with people who share similar interests.

3- Applying: Students will search for MOOCs of their interest and sign up for a MOOC and collaborate with an online team.

4- Analyzing: Students will discuss the videos in their groups and discuss ways to ensure a successful MOOC experience.

6- Creating: Students create or join an online team and collaborate on an online project.

II. Constructivism and the MOOC Workshop

Constructivism theory was developed by Jean Piaget and Jerome Bruner. In this theory they call for active learning and encourage student involvement in constructing knowledge for themselves and building knowledge, ideas and concepts based on past experience.

According to Constructivism theory; an effective learning environment, is one where the teacher understands the students' levels and their knowledge and the curriculum is built on what the students know and gives them the freedom to develop and build upon it. Active learning is a form of constructivism theory where the students take action of their own learning and are given freedom to explore within a given framework or structure. The teacher's role is still very important and they act as a facilitator to the learning. The teachers' role is also to encourage students to discover information by themselves and to construct knowledge by working to solve real life problems (Thirteen-ED, 2013).

The MOOC workshop is planned in a way, where students take action in developing their own knowledge about MOOC. The skills and knowledge gained come along the way by practicing and participating in MOOCs. The teachers' role in this workshop is a facilitator to their learning. The students will also take action of their learning as they collaborate together on the learning tasks and use the collaboration tools of Google Plus, Google Drive and Google Hangout.

Reference:

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