

Interactive Assignments for Online Students

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ABSTRACT

Students can experience first hand through interactive assignments what is involved in teaching an online course. Most students develop a whole new appreciation for the student learning process. Faculty are beginning to realize that online instruction is more than a series of readings posted to a course management system. This paper summarizes the faculty member's instructional strategies involved when creating student interaction assignments. The paper also summarizes the assignments, discussion board, and trends in education from the student's perspective. In summary, it concludes with the faculty's overall perspective concerning these assignments and how the assignments could be more effective for the student.

Keywords: Interactivity, Online, Assignments, Students, and Strategies.

1. ONLINE COURSE DESCRIPTION

Distance Learning Through Technology is an elective course in our the Master of Educational Technology Program (MET) at Lawrence Technological University (LTU) located in Southfield, Michigan. The MET program is a partnership between Lawrence Technological University, a university known for its established technological curriculum, and expertise with high-tech tools, and Marygrove College, which has extensive experience in teacher education and certification. Furthermore, the MET program is one of only a few such programs offered in the metropolitan Detroit area. It is also approved by the State of Michigan to provide teachers the training required for the NP (department of education) endorsement on their teaching certificates.

The course was designed to assist learners in identifying successful distance learning strategies through the examination of best practices and practical activities. It emphasized the use of online teaching and learning in distance education and how to identify, implement, and utilize various tools to enhance teaching and learning processes online. The course utilized independent and collaborative strategies to analyze online courses and to design and develop successful online learning experiences.

One of the educational goals of this course was to analyze the structure, interaction, and components of a distance learning lesson. This course has been taught in a hybrid modality and recently it was taught in a totally online modality. Teaching in both delivery methods, it was important to make sure students had a majority of assignments that involved interactivity. Each time the course has been taught, it is important to vary the components of their assignments based on student's final evaluations.

Interactivity involves interacting with fellow students, with the instructor, and with the course content. These assignments involved a mixture of individual and group assignments involving different interactive levels. The interactive assignments involved utilizing asynchronous and synchronous delivery. Asynchronous delivery was accomplished through Blackboard Learning Systems. Students could easily access relevant course materials and communication features within their course environment such as course syllabus, announcements, assignments, course documents, discussion board, gradebook and external links. Utilizing a course management like Blackboard reduces student feelings of isolation and increasing interactivity between students (Morgan and Kinross, 2002). Synchronous delivery was accomplished through Wimba by holding live, online classes. Wimba, Live Classroom allowed the professor and students to build relationships by combining state-of-the-art interactive technologies.

2. ONLINE COURSE STRUCTURE PERTAINING TO ASSIGNMENTS

Instructional design refers to the systematic process of translating principles of learning and instruction into plans for instructional materials and activities (Smith and Ragan 1993). To support this theory in designing this course and assignments, it was important to think about content, learning activities, and the desired learning outcomes (Oblinger & Lawkins 2006). It is also important to keep in mind attentiveness in online courses because brain-based learning theory lends itself to attending to the length of time it will take students to read and process the content (Thompkins 2007).

As the course interactive assignments were being designed and developed, it was important to keep in mind my teaching styles and my student's learning styles. I was very conscious of this because research on learning styles and how students receive and process information should be included when instructors design courses. It is also important to include experimental activities which involve the use of reflective exercises (Western 2005). While implementing assignments for the course, I tried to keep in mind auditory, tactile, and visual learners. Since an auditory learner is an independent learner, some activities included completing some independent work as well as some teaching strategies including lecturing, discussion, verbal questioning and verbal sharing. Visual learners tend to be dependent learners that are generally group oriented. Some teaching strategies included group learning, demonstrations, and activities that emphasize creativity. Tactile learners tend to learn by doing. They need to be actively engaged in something like open-ended questions. Some teaching strategies included experiential learning activities and simulations. Students will gain more knowledge, retain more information, and perform better when teaching styles match learning styles (Lage, Platt,

& Treglia, 2000).

As these assignments were being developed an important element in the instructional design was interactivity. It increases students' interest; it improves cognitive processes, and it develops group learning skills (Morgan and Kinross, 2002). In designing these assignments it was important for the students to be a part of a community of students so they did not feel alone.

3. ASSIGNMENTS

Numerous assignments were expected to be completed by the students during the semester. The type of assignments included evaluating an e-learning product, design and developing an online class unit using Blackboard, evaluating online courses, Wimba group sessions which involved researching topics, and discussion board responses pertaining to research articles. Some assignments were individual and many were group assignments. Since online education can promote collaborative learning (Yang & Cornelious 2005), I found it important to include many group assignments. The assignments were to implement what the students learned to a specific context. Toward the end of the course, students actually commented on how much they learned while collaborating on assignments and listening to their fellow students report on their findings.

We did not meet face-to-face so some students occasionally had questions pertaining to assignments. The previous two semesters involved hybrid delivery that included meeting face-to-face each week. During this time the students could ask questions pertaining to the assignments. During the totally online format some students pointed out in their discussion threads that it would be great to listen to an audio version of the assignment just as if they were in a face-to-face session with the instructor. To accomplish this, I created assignment rooms in Wimba. I opened the assignment in Wimba and proceeded to discuss the assignment as if I were teaching in a face-to-face session. I then archived this session for the students to view at their convenience. They indicated this procedure was very helpful and answered any questions they may have had concerning the assignments.

Evaluating e-Learning Products

This individual assignment required students to select an e-learning product using tools such as podcasting, blogging, webcasting, streaming video, and surveys. They had to describe the product, evaluate the product, identify strengths and weaknesses of the product, and give reasons and recommendations. In their evaluation they had to include discussing the instructional design, interactivity, and navigation options of the product. During the first two times I taught in a hybrid format, a presentation to the class was required for a grade. During the online delivery, a presentation was not required. Some examples from this assignment included webcasting, garageband, YouTube, streaming video, classroom response systems. The assignment made the students aware of different e-learning products available and how they could possibly benefit their students.

Design and Develop an Online Class Unit Using Blackboard

This individual assignment involved having the students create a course by accessing <http://coursesites.blackboard.com> which

is free for 30 days. They had to select their course design, allow guest access, make the course available and enroll the students in our class. This assignment was broken up into three components. Component 1 consisted of course and unit description, goals, objectives, contact information, announcements, and a class schedule. It included student description, student abilities and student motivation levels. Component 2 consisted of instructional materials such as word documents, powerpoint files, and any excel files. This section also included external links for interactivity, resources, and enhancements for the students. Component 3 consisted of creating a discussion forum pertaining to their unit, responding to everyone's discussion forum, self evaluation and feedback concerning their experiences. The students thought this assignment was very valuable in terms of designing content. Some examples of what students created for this assignment were:

- sound investigations which dealt with understanding how vibration, pitch, and tone related to sound
- learning about various plants and animals that live in the city and naming the animals, describing the habitat, and describing reasons they live in the city
- activities to help students with social studies and mathematics
- examining how algebra can be applied to the real world

Many teachers have Blackboard or some course management systems available to them in their district. This assignment helped them to create different units for their students and to make sure they utilized the technology effectively.

Evaluating Online Courses

This group assignment expected students to explore courses developed at <http://opencontent.org/ocwfinder> or iTunes University. The students had to evaluate whether the course encouraged contact between students and faculty, developed cooperation among students, encouraged active learning, gave prompt feedback, emphasized time on task, communicated high expectations to the students, and respected diverse talents and ways of learning. Their evaluation was based on a rubric which expected overall visual appeal, an introduction, and relevant content in their PowerPoint presentation. Some examples of what the students developed as part of this assignment were Introduction to Flash MX, Learn and Apply HTML, structure of earth materials, groups and teamwork, physics and American history, and Algebra 1. Some of the students' comments concerning these courses were that too much time was spent on the design, not enough on the content, and that interaction was limited.

This assignment allowed students to compare different online courses available on the Internet. By sharing their findings with the other students, they were able to explain and justify their findings on these courses.

Wimba Group Instruction Sessions

Many of the group sessions that were assigned involved researching an assigned topic and creating a PowerPoint presentation that applied multimedia principles from our text.

Such topics included learner analysis and motivation, cognitive learning strategies, constructivism approaches to e-learning, and future trends in distance or face-to-face learning. Each group researched the topic utilizing reliable educational technology web sites, articles, and books. Break out rooms were created in Wimba for each group with instructor privileges for these rooms. They were able to upload PowerPoint presentations just as an instructor would. Each group had 10-15 minutes per person to present their topic to the rest of the class. Since this was an online course and the previous semesters were hybrid format, each group presented their material whenever it was convenient for the group. They invited the rest of the class to their presentation but it was not mandatory for the rest of the class to attend. Each group archived their presentation through Wimba. The remainder of the class could view the session at their convenience.

A summary of their presentations dealing with future trends in distance or face-to-face learning indicated:

- No matter how good we think we are today, we're going to have to continually strive to become better for tomorrow;
- Teamwork skills, and understanding how to communicate across generations is very important;
- It is important to bring out the real talents in our students;
- Organizational change can take over 20 years, yet complete technology changes can occur every 18 months;
- Feedback should be designed to help the learner revise his/her performance independently;
- Develop good people skills and emphasize good communication
- Role of student is a more active role and mastering subject is placed on the learner

The students liked and appreciated this assignment the most. When they presented their PowerPoint in Wimba they had to click through their presentation, answer questions, and read chat all at the same time if other students and I attended their session. I made sure I acted as a student during these sessions. They didn't realize how hard it was to multitask through these different venues and still keep students engaged in their learning. They found it was a great experience to be the instructor during this assignment. The student groups needed to interact with each other and change their role from student to instructor. They indicated it was a great benefit to them to experience this interactive assignment and they felt it would be a great benefit in their career as a teacher. This process emphasized student-to-student interaction through group tasks and cooperative activities which increased as they moved from a teaching to a learning paradigm (Bower 2001). The students indicated on their final evaluations that the student-to-student interaction through their group work helped them learning from each other.

The assignment made the students aware of research and opinions of educators pertaining to different topics. By working in a group on this assignment they were able to discuss their opinions with their group members before their final presentation.

Discussion Boards

The lack of face-to-face interaction can be substituted by online

discussion (Yang & Cornelious 2005). As a result, I designed the course to have at least one discussion forum for each week of the class. Students were expected to answer the specific questions posted, raise questions and add comments to postings by others that added value. Discussion forums were posted at the beginning of the week and ended Sunday at 11:59 p.m. Each student was expected to participate a minimum of two days each week to receive maximum points based on a rubric. "Two days/week" was defined as two different dates and times that are at least four hours apart.

The discussion forums were based on numerous research papers. Examples of papers included Preparing Instructors for Quality Online Instruction, Teaching Online-A Time Comparison, The Next Generation Classroom, Instructional Design in e-learning, and Chronicle of Higher Education articles that students found pertaining to hybrid or online courses.

Additional discussion forums included getting to know your colleagues, learning the difference between training and education, the importance of formative and summative evaluation, the value of an online degree, conducting learner analysis to adjust online instruction for your faceless learners, effectiveness of distance education, and the student's thoughts on the Michigan merit curriculum guidelines online experience. Some weeks involved a group of students being responsible for facilitating the forum instead of the professor. During the semester I taught this course totally online, Blackboard implemented a new feature called voice tools. Because of this new feature, I verbally summarized weekly discussion forums for the students using a voice discussion board. In the previous semesters I taught this course, students indicated on their final evaluation that a summary of the discussion forums would be of great benefit to them.

Time was spent discussing the Michigan Merit Curriculum Guidelines from the Michigan Department of Education. The guidelines state that students must take an online course, or have the online learning experience incorporated into each course of the required curriculum, beginning with the class of 2011. Based on this mandate, it is imperative for K-12 teachers to experience and teach in an online environment utilizing asynchronous and synchronous technologies. Some of the students' comments concerning these guidelines were: they allowed each district to handle this online experience in a way that suits the district's needs; they require an online learning experience rather than an online course; they will make students more marketable in the future; funding can be an issue and; there will be an even wider digital divide between districts.

These assignments made the students interact each week with everyone in the class. The majority of weekly discussions were based on outside papers they had to read. Students are expected to answer the specific questions posed, raise questions and add comments to postings by others. They were given a total 3 points for their weekly discussion forums based on a rubric. This was based on original thoughts not already contained in the threaded discussion, cited examples and ideas, and reasons for agreeing or disagreeing with other postings.

4. CONCLUSION

In an online environment, faculty are being challenged to move beyond the notion of a course as covering content to the idea of a course as constructing a series of learning environments and

activities. It requires deliberate instructional design that hinges on linking learning objectives to specific learning activities and measurable outcomes (Oblinger and Hawkins 2006).

In a traditional classroom setting, faculty can use their understanding of their students through observation of body language, verbal response, and eye contact to create an effective learning experience (Bower 2001). The instructor needs to reply more on nonverbal communication cues and employ active listening skills. Instructors can pose additional questions for clarification and summarize what is said to ensure accurate information exchange (Rybarczyk, 2007). I felt that by teaching this class utilizing synchronous technology, I was able to understand my student's verbal response to the content, the assignments, and respond to their needs. Even though personal interaction with students is one of the most gratifying aspects of teaching (Bower 2001), I did not feel it was a disadvantage in meeting my students virtually.

Students indicated I made them look at distance learning from the instructor's perspective based on the assignments. This was accomplished by having the students create a Blackboard course as a project, research various topics, present the information virtually to the class as an instructor using Wimba, and by monitoring discussion board forums. They thought the readings for the course were meaningful, applicable to the topics, aided the course outline, and led them to research additional readings.

In the past, faculty expressed serious concerns and reservations regarding the effectiveness of distance learning (Bower 2001). In my experience and from discussions with associates from other universities, improved course management systems, such as Blackboard, and improved synchronous technologies such as Wimba made faculty and students realize how meaningful interaction between faculty and students can take place virtually.

[This article was modified from a presentation I presented at the International Conference on e-Learning at Columbia University in New York City June 2007.]

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