

What Is An Effective Online Tutorial?

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In evaluating the six tutorials from the learning resources for research & writing within the online library orientation from the UTTC blackboard, the following determination is revealed. The six tutorials are: Choosing a Topic tutorial, Brainstorming Keywords Tutorial, Where to Start Tutorial, Constructing a Search Statement tutorial, Selecting a Database Tutorial, and Popular and Scholarly Sources tutorial. The audience for these tutorials is an undergraduate class. Each tutorial consist of how a student should choose a topic, where to start, constructing a search statement, selecting a database, and to search for popular and scholarly sources. These tutorials are geared more for undergraduate students so that they may effectively and efficiently perform college level research. The research that students perform should consist of peer-reviewed journals or scholarly written articles.

These tutorials will help in the developing of undergraduate students as they transition to graduate students. The interest level of each tutorial is appropriate for undergraduate students because interested students will likely gain knowledge to be successful in performing scholarly and peer-reviewed research. The timing of each tutorial is adequate because of the time allotted between assessments. Each tutorial effectively assesses each portion of the tutorial. Within each tutorial there are two short assessments that a student must take in order to see if he/she is grasping the information. The uniqueness of these synchronous tutorials is that a student may reinforce his/her knowledge by repeating the exact same pattern as opposed to face-to-face (F2F) tutorials. In F2F tutorials, the tutor presents the same information in

different methods. Not every F2F tutorial is exactly the same. The duration of the tutorial is appropriate because students tend to become bored if a lecture becomes too long. Students need interaction to keep motivated and engaged. If this is not the case, most students will lose interest and ignore the rest of the lecture. The accessibility of the tutorials can easily be obtained by any level of student, whether an undergraduate or a graduate. The library tutorials can be easily attained by any student that is an alumnus of the college. Each tutorial has attractiveness and clarity because the authors keep them short and simple, keeping the students engaged and willingly to accept new information. The authors of each tutorial provide a clear and to the point narration of each segment. The pace of the tutorial is kept and allows the students to start and stop at any given point within the tutorial.

According to the Journal of Research on Technology in Education, "hundreds of studies were conducted that compared face-to-face instructional environments with different technology assisted instructional environments" (Beyth-Marom, Sapota, Caspi 2005). With this in mind, how effective are online tutorials as compared to face-to-face environments? As research was done, it was found that there is "no significant difference" because it was based on student characteristics. The students' characteristics are: "his or her learning habits, learning styles, preferences, and characteristics" (Beyth-Marom, Sapota, Caspi 2005).

The relevance of the tutorials and how they are related to education and/or educational technology is highlighted by a quote that was written by George C. Lichtenberg "I cannot say whether things will get better if we change; what I can say

is they must change if they are to get better". With this said, how can it not be relevant to education or educational/technology? Everything that students learn in school is to be successful, not in the clutches of today but the obstacles of tomorrow, the 21st Century. In the world of Web 2.0, change is inevitable - the new wave of the digital world plays a major role in education and the learning process. The Internet has evolved from a novice form of communication to a revolutionary form of interchanging dialogue. Web 2.0 encompasses social networking sites, wikis, and blogs. Tim O'Reilly, founder of O'Reilly Media, is credited for coining the term "Web 2.0" - "It does not refer to an update to any technical specifications, but to changes in the ways software developers and end-users use webs" (Web 2.0 para 1). In order for today's students to become marketable in the 21st century, they must learn the skills today to use tomorrow. Web 2.0 Tools help provide these necessary skills by allowing students to communicate interactively with other students in real time.

Online learning is becoming one of the most popular means for non-traditional students to attend post secondary institutions through distance education courses because. According to Kwok, "Recent and rapid improvements in information and communication technologies and the increasing bandwidth of Internet access have made the use of synchronous solutions for instruction more popular." (Kwok, 2007) The problems that arise from this type of learning are students collaborating in groups without the interaction of (F2F) implementation. The issue with synchronous communications is glorified with the different learning styles where "interaction has long been a defining and critical component of the educational process and context and has

always been valued in distance education” (Kwok, 2007). The advantages of online learning and using tutorial based instruction to reinforce a lecture or a learning object designed to teach students how to use or access a program or a device. The ability to access sessions at anytime and anywhere “allows for a better match between the kind of pedagogy and the student’s preferences regarding the learning environment (where, when, how, with whom, what pace, etc)” (Beyth-Marom, Sapota, Caspi 2005).

Collaborative groups are any number of entities (members) that work together on a project to reach a common goal. The problem that most collaborative groups encounter is when team members meet outside of the actual learning environment that is designed for each course. The hardest goal of collaborative groups is to have face-to-face (F2F) encounters when working on any given topic. When meeting outside of their learning environment, group members must contribute to the project in order to receive proper credit. Many times students find themselves in unforeseen situations where students cannot attend regular class meetings. At one point or another many of people find themselves in awkward situations such as being, sick or homebound or even having children at home. In most cases, students find themselves at home and not in school because of their inability to provide proper care for their children. The ability to attend classes or training is not an option, because the notion of leaving unsupervised children could cause hardship. Time is the reason that many people do not attend college. The same concept applies to tutorials, many people would rather view a short tutorial instead of attending a lengthy one-to-many tutoring sessions.

In creating short digital tutorials of class lectures, students can find themselves on the right track because they will have the ability to repeat and pick a starting point. This will give the student the advantage of retaining knowledge, as opposed to sitting in a lecture hall and losing interest within the first 10-15 minutes. According to Vincent Kiernan, Ms. Yvette Cottman, a college student, was able to pass her class due to her viewing digital recordings (tutorials) of lectures by her professor. Ms. Cottman stated that, "You can go back and listen to the lecture again" (Kiernan, 2006). This method improved Ms. Cottman's chances of passing a much needed class. Effective tutorials will have the same effect on students who are members of online learning. According to Tegrity.com, the rule of 120:20 is how fast a professor lecture during his class. The professor says 120 words a minute but students only write 20 words a minute; therefore losing out on 100 words. The use of effective tutorial will alleviate the injunction of teacher centered instruction.

How should a tutorial look and feel to a student? In reading *Strategies for Planning Technology-Enhanced Learning Experiences* by John Cowen, he introduces "strategies that can help support the development of an innovative and enriched curriculum" (Cowen, 2008). The six strategies that Cowen discusses are as follows: 1. Understand the larger context of technology, curriculum, and education reform. 2. Understand the basic modes and appropriateness of computer use. 3. Conduct reconnaissance. 4. Create a detailed plan. 5. Do not reinvent the wheel. 6. Plan for alternative assessments. In creating a successful tutorial, the financial burden should not be an issue. In most cases, many of these tutorial can be created inexpensively.

This will alleviate the tension of "accountability that the teacher's role and the scope and nature of curriculum has been reduced to" (Cowen 2008). In 1980 according to Cowen, "Anyon found that the nature of what constituted knowledge was greatly based on socioeconomics level of the school" (Cowen 2008). With effective and efficient tutorial this will no longer be the case because every school will have equity in curriculum and instruction. Every student will have the ability to view the same lecture or short tutorial, creating equality. According to Cowen, "Taylor in 1980 defined three types of computer use: tutor, tool, and tutee" (Cowen 2008). The question how can a computer be used effectively and efficiently as a tutor? As a classroom teacher, noticing that we teach to test, has increased the drill and kill also known as "skill and drill" (Cowen 2008) phenomenon. This strategy has plagued the classroom teacher since the inception of the TAKS test. According to Cowen, the preferred mode for repetitive practice strategy is to use the computer as a tutor.

The advantage of using the computer as a tutor is to allow the student to gain knowledge by repetitively engaging in online tutorial to allow learning. The computer as a tutee allows the creator of the tutorial to be administered as it was intended. According to Cowen, in the tutee mode the student and the teacher interact as one to resolve and discuss problems. In conducting reconnaissance of tutorial the creator should look at different factors before committing to fulfilling a finished product. There are a few questions that should be looked at and discussed: 1. "What content needs to be covered?" 2. "What are the best teaching strategies and technology applications to cover?" 3. "What technology and connections are available?" 4. "How are equipment,

labs, software, and support help scheduled?" 5. "What types of applications are available?" 6. "What is your technology level?" 7. "What is the students' technology level?" 8. "Who can help" (Cowen 2008).

What makes a tutorial successful? In the article, *5 ways to Improve Tutoring Program*, by Edward E. Gordan, states "Evidence on tutoring points practices that are found in most successful tutoring points" (Gordan 2009), are: 1. Use a diagnostic/developmental tutoring program. 2. Structure the tutoring program, 3. Use the most experienced teachers as tutors and train them. 4. The site of the tutoring can maximize long-term results. 5. Encourage the user of peer tutoring in the classroom. The classroom experience has transformed into a virtual world, therefore, professors may follow the five points provided by Gordan so that their tutorials can be effective and efficient. In order for tutorials to be effective they may follow the same points and strategies. According to Gordan, "Tutoring has become a familiar tool that schools use to reinforce classroom teaching and improve student achievement" (Gordan 2009). A video tutorial can be used to achieve the same goals as a peer-to-peer tutorial. The difference is how to access the student based on his/her performance.

According to a teacher, Mrs. Gonzalez, "In a peer-to-peer tutorial, students mentor one another and constantly access reinforcement from the teacher", the question was quite simple "What about assessment?" In response a library resource video was shown to Mrs. Gonzalez and asked to determine the good and bad points of the tutorials. The response that Mrs. Gonzalez gave was that she was "able to follow at a good pace and was surprised to see two assessments throughout the tutorial." The

ultimate goal is to see the tutorials as “learning detectives” and not just as “homework helpers” (Gordan 2009). Master Technology Teachers for the Donna ISD learn to become facilitator and not dictators, a “Coach” and not a “test prep-specialist” (Gordan 2009). Another goal is to have the tutorial become as effective a peer-to-peer tutoring. This allows the students the ability to have “positive effects on student classroom achievement” (Gordan 2009).

How effective are the assessments? In most cases “the primary vehicle for assessment is standardized testing” (Cowan 2008). Which eliminates or “ignores the critical skills because they are not measurable or are difficult to measure” (Cowan 2009). The effective measurement of critical thinking skills is a challenge to be looked at with online tutorials. What will be the best way to measure and determine mastery of critical thinking skills?

Professional development plays a major role in the World of Web 2.0. Proper training must be performed before, during, and after implementation. In an interview with Mrs. Gonzalez, a 5th Grade teacher from Donna ISD, the available technologies in Mrs. Gonzalez’s classroom are an interactive whiteboard, a laptop, a data projector. According to her these tools have not been utilized due to lack of training. The older forms of technology such as; on overhead projector was and a pull down screen. Why are you not using your interactive whiteboard, laptop, and the data projector? Mrs. Gonzalez was quick to response, “I don’t know how to use it and it is not plugged in.” What do you think about our districts professional development trainings and what would you change? Mrs. Gonzalez said, “We only get trained at the beginning of the

year and then there is no follow up, we get left here to fend for ourselves.” The emotion in her eyes and body movements depicted the frustration that she was going through. How do you think online anytime tutorials will help in the development for technology? Mrs. Gonzalez first mentioned that she was not a technology oriented teacher and would prefer not to change from her traditional ways “ticking to what she knows. As we sat in her classroom we began to discuss the possibility of online Tutorial (good ones) and how they can play a major role in alleviating this process. Mrs. Gonzalez made a comment about how she could “view and review the tutorial”. According to Cowan “the main strength of computers is that it has the capacity to appeal to a wide variety of ability levels and learning styles” (Cowan 2008).

Professional educators are limited with time and are stretched thin. In trainings that are performed with district personnel normally range between 1-6 hours. According to Mrs. Gonzalez, trainings, “are too long and too fast, we get lost or bored”. In administering a short tutorial about Ning, which was created for the purpose of a requirement for a graduate class, Mrs. Gonzalez responded that “she could access the tutorial anytime and anywhere” as well as “repeat and pause to her advantage.”

With short five minute or less effective and efficient tutorials on how-to’s, would greatly benefit educators in the world of education and educational technology. The ability to have anytime and repetitive access with online tutorials greatly benefit students or teacher in any field. These classes are mostly made up of K-12 teachers that are on the path to the certification of Master Technology Teacher or a Masters degree in Educational technology.

Resources

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