

Virtual Campus Tour

Sirichoke Namsong
Department of Educational Technology
University of Hawai'i at Mānoa
Honolulu, HI, USA
namsong@Hawaii.edu

Abstract: Virtual Campus Tour is an instructional design project, which delivers video campus tours for international students while they are still in their home countries. These students should be able to know the university's facilities and services before their arrival on campus. Two pilot episodes of the Virtual Campus Tour have been designed and delivered using Blogger, YouTube, Google Docs, and Google Form, to allow new international students to take virtual campus tours of the University of Hawai'i at Mānoa at their convenience. After one-on-one tests were conducted, a significant change was made to the feedback process: Google Forms replaced Survey Monkey as the tool used for the test questions and survey. Survey Monkey caused difficulties with module navigation, though Google Forms also had its drawbacks. Attitudes of international students toward the Virtual Campus Tours, and their difficulties viewing the blogs from different distant locations, were discussed and analyzed. Most participants found the module effective, and indicated an interest for more episodes. However, Internet connectivity issues from various locations caused some participants to have difficulty viewing the module.

Introduction

A number of activities are today available online to reach out to different target audiences anywhere at their convenience. These activities include taking courses, taking tests, banking, and trading, along with many others. It would not be peculiar for new international students at the University of Hawai'i at Mānoa (UHM) to take virtual campus tours online instead of walking in a big group under the sun from place to place soon after their arrival. Sleepily listening to explanations by volunteer staff while being in a state of jet lag may not be the most effective introduction to the university for these new international students.

Traditionally, for the first few weeks after arrival, new international students rely on volunteers to guide and escort them on particular tasks including scheduled campus tours. The tours are very tedious and repetitious for volunteers who deliver them every semester, and sometimes even every week, for visitors to the campus. Unfortunately, sometimes there is no volunteer staff available for some students who arrive late for the UHM official orientation. Moreover, some students can not participate in the campus tour due to their state of jet lag and other physiological disturbances.

Emerging technologies such as video on demand and blogs make virtual campus tours possible to serve international students who may not be able to attend an official campus tour. Murphy, Hawkes, and Law (2002) suggested that colleges and universities are not

yet taking advantage of web-based orientation for international students. They argue that having an orientation on the Internet is an effective way to reach international students. "Because students do not have to be physically present at an orientation held at a particular time in a given location, orientation can begin even before the international student has left his or her home country" (2002, p.38).

In addition, video that is made up of the combination of moving images and audio has been shown to have many advantages for demonstration or instruction in a classroom. According to Dale's Cone of Experience, learners tend to remember information gained through video better than through reading and listening (Dale, 1969). Since video files are digitized, these can be transmitted either by streaming or synchronizing through the Internet (Patterson, 2000).

The reason for using a video blog for a campus tour at the University of Hawai'i at Mānoa is because it seems to be an effective way to help orient many new international students at the University every semester. With video blogs, it is easy to upload current and updated content, and video clips in the future. More importantly, it can be streamed through the Internet to reach potential students worldwide.

The purpose of this instructional design project is to develop and test the effectiveness of a video blog for a campus tour that is intended to help orient new international students to the University of Hawai'i at Mānoa.

Background

The majority of international students who come to study at the University of Hawai'i at Mānoa are from Asian countries. According to the statistics of the University in Fall 2006, 47 percent of international students were (The University of Hawai'i at Mānoa, 2006). This group of students often faces many difficulties in settling into the new academic environment, including difficulties with housing and language barriers on campus.

Adjusting to a new environment and culture in the United States is a barrier for international students when they first arrive. International students come from cultures that are different than American culture. "Most international students arriving in the United States are from cultures with close family ties and distinct patterns of etiquette..." (Selvadurai, 1998, p. 157). This could lead to stress for the students and affect their study in the American environment. Similar problems of international students in Australia also have been reported (Robert, Line, Jones, & Thomas, 2000).

American universities have good reasons to encourage international students. According to a report from the Institute of International Education in New York, there has been a decrease in the last several years in the number of foreign students from Asian countries, particularly from Thailand, registering in American universities and colleges. The figure for students from Thailand was down 17 percent from the previous year (Journal of Commerce, 2000). Keith Geiger, deputy assistant secretary for academic programs at the

U.S. State Department, stated that international students coming to study in the U.S. would benefit the country in many ways, such as improving business relationships and cultural understanding in a very profound way. Moreover, Geiger also stated that helping to overcome international barriers is the goal of the State Department (Journal of Commerce, 2000). In addition, Selvadurai suggested that “satisfying the needs of international students in a more effective manner will open avenues for increased enrollment of foreign students in American colleges.” (Selvadurai, 1998, p.157).

Furthermore, with the advancement of computer and screen capture software, instructors are now able to capture their computer screens and easily save them as video files for application demonstrations. Seal and Przasnyski (2003) found that using screen-capture movies for demonstration and revision of previous lessons in a business course at Loyola Marymount University resulted in desirable feedback from their learners.

Video podcasts, sometimes called vodcasts (John, 2007), are gaining popularity among students and instructors worldwide as a supplement to courses. Jonathan Copley, from the University of Southampton in the United Kingdom, claims that 91% of the students from his experimental class selected and preferred video podcasts for their supplementary lecture material (Copley, 2007). This shows that video podcasts are the preferred choice of medium from students' point of view.

Moreover, a study about the use of video for instruction that compared the effectiveness between problem-based video instruction (PBVI) and problem-based text instruction (PBTI) found that the problem-based video instruction was likely to extend the learner's retention and comprehension (Choi & Johnson, 2007). Furthermore, the learners from the class reported that “the video-based instruction was more ‘memorable’ than the traditional text-based instruction.” (Choi & Johnson, 2007, p. 215).

Video blogs could be suitable for the University of Hawai'i at Mānoa's orientation program dissemination. Since many international students at UHM need flexible orientations that they can access at any time and repeat as often as they want, video blogs can be a useful alternative.

Design Methodology

This Virtual Campus Tour is an instructional design module containing ten learning objectives, ten pre-test questions, ten embedded questions, and ten post-test questions. The module aims to familiarize new international students with the Campus Center and the Hamilton Library by using embedded video in Blogger.

Two video episodes, one for the Campus Center and the other one for Hamilton Library, were developed and edited using iMovie'09. These video episodes incorporated footage from a video camcorder, screen captured movie by Snapz Pro X, still images using Photoshop, and narration using GarageBand'09, exported as MP3 files. After all these elements were assembled in the clips, they were exported as MPEG 4 file format and uploaded to YouTube.

YouTube generated embedded codes for the clips, and these codes were copied and pasted on Blogger. Because of this, the video clips will appear on Blogger. Blogger was used to assemble content such as videos, text, and links. In this essay, from now on the term video blog will be used for Blogger embedded video clips from YouTube in this module.

Google Docs was used as a starting page or a portal page to give instructions to participants and direct them to the video blog. It contained directions and a link to the pre-test page. The participants were required to submit the pre-test first in order to get the link to direct them to the video blog.

After watching the last video clip in the video blog, the participants found a link to the post-test. The participants then had to submit the post-test in order to get a link to the survey. Google Form was utilized for the pre-test, post-test, and survey in this module.

Video clips for the Campus Center and for Hamilton Library describe directions, services, regulations, and important information with simple explanations in the English language. Visual demonstrations, text, and embedded test with feedback were designed to enhance the audiences' comprehension. This module used easily available and free tools such as YouTube, Blogger, Google Docs, and Google Form for dissemination of the content.

Sample

The target audience for this module was potential international students who were planning to study at UHM, and new international students who had just arrived on campus. The sample group for small group testing consisted of 18 people. They were potential professors from China; International Fellowship Program (IFP) fellows from Vietnam and Thailand who will come to UHM for their master's degree in Fall 2009; Thai immigrant students in Hawai'i; Vietnamese students from the United States mainland, and a primary school English teacher from Thailand.

Evaluation Procedures

There were a total of six sessions for the one-on-one evaluation. The first session was carried out with a friend in Thailand who speaks English as a first language, and who holds a bachelor degree from a university in America. Skype was used for 'live' feedback and the interview. The second one-on-one session was conducted with a content expert, a second year Educational Technology student, as a face to face session. The third, fourth, and fifth sessions were tested with three first year Thai students face to face, one by one, on different days and times. The last one-on-one session was conducted after the module was revised, and was tested with a new immigrant student at Kapi'olani Community College (KCC), also in Honolulu, via email and telephone.

The small group testing was done remotely in Thailand, China, Vietnam, the Big Island of Hawai'i, and the continental United States. Invitation emails were sent to International Fellowship Program (IFP) scholarship coordinators and managers in Thailand and Vietnam to recruit participants. IFP always sends its fellows to the University of Hawai'i at Mānoa every year. Two scholars from China helped to recruit participants from China by email. An IFP fellow in Brandeis University in Boston helped to recruit Vietnamese participants in that area by using his social network, FaceBook. A general manager of a hotel in Bangkok, Thailand helped to send out invitation emails to his friends both in Thailand and on the Big Island of Hawai'i. Finally, the researcher asked an English teacher in Thailand to participate in this module via Yahoo Messenger when she appeared online. The participation in this module was anonymous, with only one survey question asking for the participant's emails in order to send an Amazon Gift Card to them.

Results and findings

One-on-one testing

After the draft of the modules was posted on the Internet, data from the one-on-one testing was used to improve the modules and make changes. A friend in Thailand, who graduated from a college in Springfield, Massachusetts, was the first person who completed the one-on-one test. First, spelling and word usage were discussed. The person suggested changing a phrase used in the video, "Understanding Checking," to "Let's Review" to reinforce and give feedback to the learners. Second, he suggested adding an acknowledgement part at the end of each clip. The changes were made accordingly. However, there was a comment that the map for the Campus Center episode was not clear enough when it appeared on Blogger, which was linked from YouTube. This issue was not changed, because the original clip was clear and visible, but when it was on YouTube, the quality of video clips was affected by the Internet speed.

A content expert for this project is a second year ETEC student familiar with the campus grounds and libraries. He lives at the East-West Center dormitory, Hale Mānoa, which is the dormitory for international students, and has volunteered to conduct face-to-face campus tours for arriving new students several times. He pointed out that the first page of instruction for the module that contains instruction and four links to pre-test, video blog module, post-test, and survey required changes. Each link opened a new window, and the learners have to return to a main instruction page for the next task, which may be confusing and may also allow participants to cheat on the pre-test by viewing the module first. He suggested that the module be changed to direct the participants from the portal page straight through each step until the end of the survey, so that participants would read directions at the portal page, do the pre-test, watch the videos at Blogger, do the post-test, and do the exit survey in order. It was determined that it would be better to force the learners to complete the module sequentially. However, Survey Monkey, a free online survey tool that was used for pre-test, post-test, and survey was not able to do so. It did not allow the user to edit or embed a link on the confirmation page to the desired page after the test question was submitted. As a result of this, Google Form was used instead

of a free version of Survey Monkey. Google Form is also a free survey tool and it allows users to edit the confirmation page. Therefore, users can paste a link in the confirmation page to another survey or web page.

Three first year Thai students at Hale Mānoa were asked to test the module using the same version that was used by the content expert. This was carried out in one-on-one sessions and was closely observed by the researcher. None of the participants were able to remember the amount of time spent on the module when asked in the survey. Moreover, two out of three did not read the instructions carefully. One student just ignored the written instructions and asked “where to click?” and “what am I suppose to do next?” He did not read instructions, but instead preferred to ask for assistance. No one was interested in following links to read additional information on the video blog. Based on the findings from these one-on-one sessions, a sentence asking the participants to take note of the start time was added on the instruction page. Extra details, text, and links on the video blog were eliminated, but the objectives were retained.

The instructions and module were revised and tested online again with an immigrant Thai student at KCC (Kapi‘olani Community College). This student has never been to the UHM campus and did not know much about the University. The link was sent to the student by email and a follow-up interview was conducted by telephone. The participant had no problem viewing the module. He also said that the module made him understand more about UHM, and that he might choose UHM for his bachelor’s degree in the future.

Small group testing

Participants for this project were Vietnamese, Thai, and Chinese. They viewed the modules, and did the test questions and survey questions from their remote locations. Not all of them successfully completed the module. Seven participants stopped participating after finishing the pre-test for various reasons and difficulties. As a result, the number of participants shown in the pre-test results was higher than in the post-test and survey. The number of participants shown in the pre-test was 25, but the number of participants in the post-test and survey is 18. Two of the participants who did not complete the modules reported difficulty viewing the modules by email. One of these was in Thailand, and the other in China. Neither of them could see the video clips in Blogger, which linked from YouTube using embedded codes. The participant from Thailand reported that her screen did not show the video; it was blank. She sent her screen shot as shown in Figure 1.

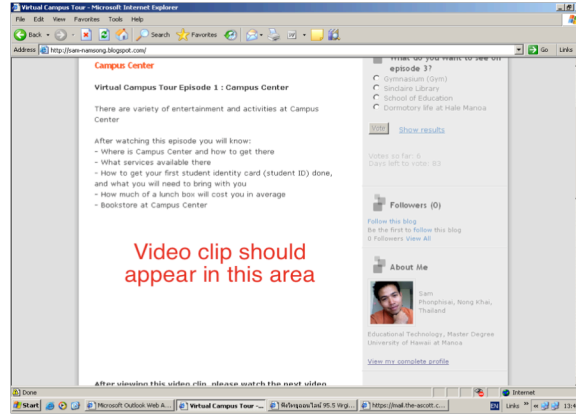


Figure 1. Screen shot from a participant from Thailand.

As a consequence of the problems mentioned above, the percentage of correct answers in the pre-test was calculated based on 25 participants, and the percentage of correct answers in the post-test was calculated based on 18 participants for comparison. The percentage of survey results was drawn from 18 participants as well.

The percentage of correct answers in the post-test increased compared to the pre-test, after viewing the modules as shown in the Figure 2.

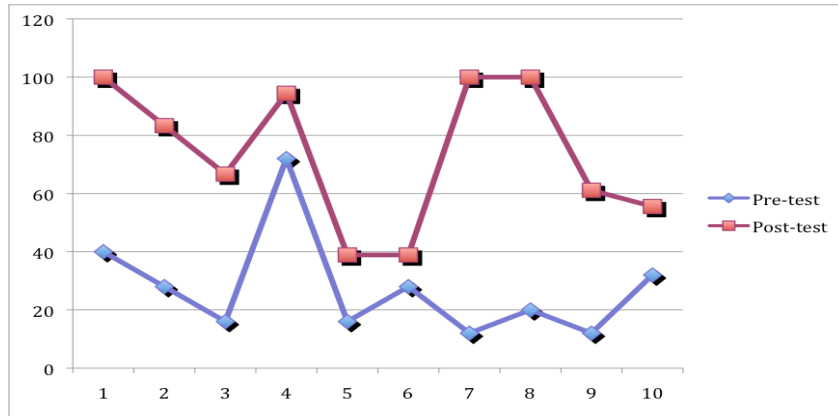


Figure 2. Percentage of correct answers comparing pre-test and post-test

Results from the survey found that 95% of the participants agreed that the modules were easy to follow and understand, 67% strongly agreed that sound and narration was clear for them to understand, 44% of the participants reported that they watched the video clip in high quality mode, while 33% did not know how to watch the clips in high quality mode. All the participants felt comfortable doing the module online and agreed that the Virtual Campus Tour was useful and will help them as international students to establish themselves in the new environment. Eighty-four percent of the participants indicated that the module was informative and engaging. All participants asked for more episodes of the Virtual Campus Tour to cover all the main facilities and services that were important for international students. Two major problems were detected by participants. One was the

slow Internet connectivity. The other one was the small text on the map that indicated the names of the buildings, which were hard to see and remember. The time spent in completing the modules varied from 20 to 50 minutes.

Implications and Discussion

The Virtual Campus Tour has demonstrated and explored the possibility of using free ubiquitous web 2.0 tools for distant learning. Although Internet connection is often slow, and broadband Internet is limited in South East Asia, most participants from Thailand and Vietnam and China were able to view the modules. This is a good sign. It may be time for educators to take advantage of web 2.0 with low or at no cost.

The free tools that were utilized in this Virtual Campus Tour, including Blogger, YouTube, Google Docs, and Google Form, are quite impressive in terms of ease of use, and accessibility. However, a few drawbacks were found when using Google Form for the modules. First, the number of responses on the spreadsheet mode and the summary mode were not synchronized. It showed 25 responses in the spreadsheet, but indicated 32 responses in the summary mode. Normally, they must show exactly the same number of responds. Consequently, the summary mode could not be instantly used. This caused a problem; summary mode is supposed to show the summary of responds on each questions in percentages or graphs, which is a benefit of using an online survey. Since the summary mode was in error, manual calculation had to be done based on the number in the spreadsheet mode, which was reliable but took a longer time. Second, Google is designed as a smart software to detect the location of the users and to adjust the interface language for that particular country. The first one-on-one session was done remotely in Thailand via Skype with a friend who cannot read Thai. He encountered a situation when some of the pre-programmed instructions were in the Thai language and had to take about five minutes to readjust the browser, FireFox, to show the interface language which is in English. Google Form should allow users to use their default interface language without making this automatic yet undesired change. Nevertheless, this may be good for real international students while they are viewing the modules in their home countries.

As mentioned above, not all participants were able to view the video blog due to a YouTube issue in some locations. There was one participant in Thailand who experienced difficulties viewing the video clips. She could only see an empty space in the area where the video was supposed to be shown, as shown in Figure 1.

Suggestions for Future Changes

The results for the questions referring to directions and places had lower scores than others, suggesting that the maps used in the modules were not as effective as they should be. A few participants pointed out that text that appeared in the maps, which were captured from Google Map, were small and hard to read. For future revisions, the text and map should be made bigger, and still images of the map might be more appropriate than captured video to illustrate directions.

Moreover, using text-only for testing and asking about maps was not the best way. Images should have been used as alternative choices. However, the survey tool used in this module did not support image insertions at the time.

Uploading video to YouTube took a few hours for the video renderings, with total time depending on how busy YouTube was at the time. Each time the original video is edited or changed, new uploading is needed. For this module, video clips were uploaded more than seven times. Each time, the embed code was re-generated and changed, and therefore the existing code in Blogger needed to be changed as well. These changes are time consuming. Participants also claimed that small texts on the maps were not clear on YouTube. Due to these problems, Apple's iWeb software might be considered for the website design tool for the future. Importantly, it is bundled with all Macintosh computers. The drag and drop function of iWeb makes it easier for video clips management. Video clips such as QuickTime (.mov) and MPEG 4 file formats can be dragged and dropped on iWeb directly, and they work seamlessly in iWeb, as no embed code is needed. iWeb will show the original video, with no need for re-rendering to Flash movie, unlike YouTube. This will result in clearer video for the target audiences, and will be faster in term of building and editing. In this way, a video hosting website such as YouTube may not be needed in the future.

Conclusion

The analysis indicated that video and video blog were effective ways to disseminate information such as a Virtual Campus Tour. International students found that the Virtual Campus Tour was useful and helped them in the new environments. Furthermore, ubiquitous online free tools always have limitations but they proved to be efficient for this Virtual Campus Tour.

All participants asked for more episodes of the Virtual Campus Tour. Because of this, the University of Hawai'i at Mānoa, and its colleges, might want to consider having virtual campus tours available to reach out to potential international students by broadcasting each short episode over YouTube or on the university's website.

References

- Choi, H., & Johnson, S. (2007, September 1). The Effect of Problem-Based Video Instruction on Learner Satisfaction, Comprehension and Retention in College Courses. *British Journal of Educational Technology*, 38(5), 885. (ERIC Document Reproduction Service No. EJ773079) Retrieved August 30, 2008, from ERIC database.
- Copley, J.R. (2007). Audio and video podcasts of lectures for campus-based students: production and evaluation of student use. *Innovations in Education and Teaching International*, 44 (p.387-399). DOI: 10.1080/14703290701602805
- Dale, E. (1969) Audiovisual methods in teaching, third edition.
New York: The Dryden Press; Holt, Rinehart and Winston.
- Foreign students flock to US colleges :[5 Edition]. (2000, January 12).
Journal of Commerce, p.9. Retrieved April 29, 2008, from ABI/INFORM Global database. (Document ID: 47839863).
- John Maxymuk (2007). Online communities. *The Bottom Line*, 20(1), 54-57.
Retrieved May 8, 2008, from ABI/INFORM Global database. (Document ID: 1247969591).
- Kala Chand Seal, Zbigniew H Przasnyski. (2003). Using technology to support pedagogy in an OR/MS course. *Interfaces*, 33(4), 27-40. Retrieved April 26, 2008, from ABI/INFORM Global database. (Document ID: 420034261).
- Murphy, C., Hawkes, L., & Law, J. (2002). How International Students Can Benefit from a Web-Based College Orientation. *New Directions for Higher Education*. 117, 37.
- Patterson, Jennifer C. (2000). How digital video is changing education. *Curriculum Administrator*. 36,34.
- Robertson, M., Line, M., Jones, S., & Thomas, S. (2000). International students, learning environments and perceptions: a case study using the Delphi technique. *Higher Education Research & Development*, 19, 89-102.
- Selvadurai, Ranjani (1998). Problems faced by international students in American colleges and universities. *Community Review*. 16,153-158.
- The University of Hawai'i at Mānoa, (2006). Student headcount by ethnicity, fall 2006. Retrieved May 14, 2008, Web site:
<http://www.Mānoa.Hawai'i.edu/facts/ethnicity.htm>