Lewis and Clark in Action: Using Video iPods in Eighth Grade Social Studies

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Abstract:
The use of video iPods in middle schools was explored through research in two social studies classrooms. This study measured achievment differences in Spring 2007 between two groups of eighth-grade social studies classrooms. Groups were chosen for similarity between numbers of IEP's and/or 504 classifications, and relative class size. Both groups had 25 students. The control group had three IEP students and no 504. The experimental group had two IEP students and one 504. CATS scores from 2005-2006 were used to develop groups ensuring hetergeneity. Instructional content was defined through Kentucky Program of Studies (2006) SS-8-G-3, effect from geographical barriers on people, and SS-8-G-1, examinations of human movement/culture. While no significant differences at the .05 confidence level were seen on a two-tailed t analysis between the two groups on content identification, there was a non-statistical difference in acheivement in the test means and modes.

A hot topic in educational technology is the use of portable devices for learning (Blaisdell, 2004; Waters, 2007). Listed as the third most important product in the last thirty years of Apple (Farivar, 2006) the top portable being discussed for its uses, and possible misuses, is the iPod. Many public schools have produced news podcasts. The iPod though seemed limited since it played audio and could contain only limited text files. Schools were searching for a more generational friendly medium to deliver content. The video iPod was released in October 2005 (Breen, 2005) and is considered the nineteenth most important product from Apple (Farivar, 2006).

Businesses ranging from IHOP to professional baseball (Berta, 2006; Robb, 2006) began using video iPods as training devices. Schools began to develop lesson plans and activities for their use. Drexel University's (2005) COE provided Video iPods to develop educational P-16 instruction. Some instructors have gone much further with iPods. In a graduate course, Vess (2006) explored the use of notes, recording, presentation, and editing within a class on historiography. Although many middle schoolers are highly equipped to use an iPod in these ways, schools are not. One video iPod was available for our project.

To better evaluate the use of video iPods for instruction in Eastern Kentucky, a practical test of its effectiveness on achievement was needed. This study measured achievment differences in Spring 2007 between two groups of eighth-grade social studies classrooms. Groups were chosen for similarity between numbers of IEP's and/or 504 classifications, and relative class size. Both groups had 25 students. The control group had three IEP students and no 504. The experimental group had two IEP students and one 504. CATS scores from 2005-2006 were used to develop groups ensuring hetergeneity.

Instructional content was defined through Kentucky Program of Studies (2006) SS-8-G-3, effect from geographical barriers on people, and SS-8-G-1, examinations of human movement/culture. In both groups, Four workstations with five to seven students each were used for both groups. The stations were as follows: a computer station with Internet access to PBS from which to complete biographies, mapping for topography, timeline, and

textbook from which to answer basic questions on Lewis and Clark. A fifth station for the experimental group contained one Video iPod with accompanying content videos. The control group did not receive the videos in any form. The videos were downloaded from United Streaming via the Kentucky Encycomedia and converted for use on the Video iPod. To convert the videos, FLIP for Mac, http://www.flipformac.com, was used. The videos were imported to the iTunes video library and prepared for the iPod. The videos were (1) Westward Strategy: Louisiana Purchase (26 minutes), (2) The Lewis and Clark Expedition (20 minutes), (3) Native America: Expansion (14 minutes), and(4) Sacajawea (18 minutes).

Comments from the experimental group focused on the sound and video quality as well as the number of iPods available. One video iPod was used at one station. Groups had up to five students. The sound quality was not the very best with the conversions. The videos, while not longer than 26 minutes, might have been too lengthy for a regular class period. Students wanted to watch every video. It was not possible with four videos from which to choose. Even if they chose only one, it was a good support for the Lewis and Clark. Videos were chosen to coordinate with the unit objectives. In the experimental group, specific comments from three students who had significant gains clarified the research. Two of the three watched at least one video on the iPod.

"I think it would be a good thing if you had enough to go around for a group of like three or four people then it would be fine."

"I think it is a good idea because the kids love iPods, so they could pay more attention."

"I think it's a good idea because we get to watch instead of read. I would rather have two people share one instead of five to seven (people)."

A two-tailed t analysis (N=25) was conducted on content pre and post-tests between the control and experimental groups. The content questions were developed from core content for assessment (2006) prompts given through Think Link Learning (http://www.thinklinklearn.com). This program is designed to increase standardized test scores by improving test-taking and comprehension abilities.

While no significant differences at the .05 confidence level were seen between the two groups on content identification, there was a non-statistical difference in acheivement in the test means and modes. The control group mean from a 15 point pre-test was 8.4; experimental group was 6.4. As seen in Figure 1, the control group post-test mean was 9.4; experimental group was 8.08. While both increased the mean, the experimental group increased more. Interestingly the mode in the experimental group jumped from 7 on the pre-test to 10 on the post-test. The control group mode changed from 8 to 10.

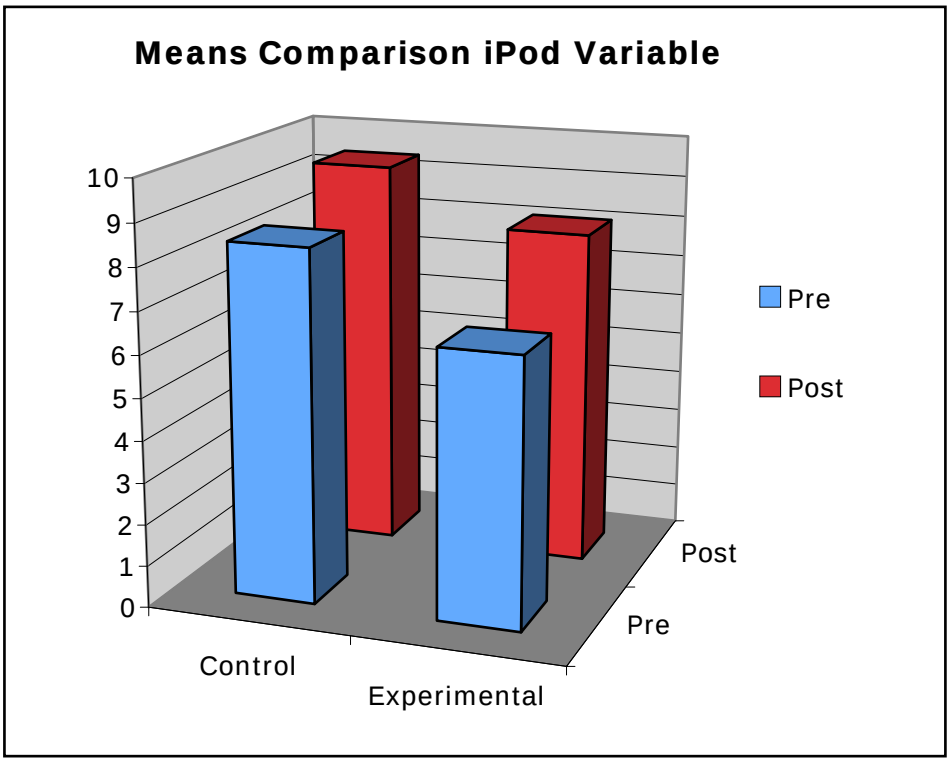

Figure 1: Means Comparison

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