iPod, iPhone, and now iPad: The evolution of multimedia access in a mobile teaching context

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Abstract: The problem presented in this poster session is “How can a multimedia database be easily used as a teaching tool in the classroom?” This poster presents the iPad as a mobile handheld delivery tool for multimedia database components. Teaching strategies which utilize the iPad as a teaching tool benefit from several key affordances over previous iPod generations: easy of interaction (touch screen), increased screen size, controllable multimedia playback, significant volume, and various data collection capabilities. The teaching strategy described in this poster is the leading of mobile small group demonstrations using finely controlled multimedia playback. An overview of the process required to easily create a multimedia database on an iPad is presented as a critical component of successful use. This poster session describes a specific application of the iPad in the classroom and further research needs to explore iPad data collection capabilities to extend the use into other educational contexts.

The problem

With the release of the original iPod, personal mobile access to audio became a reality. Over the past several years the iPod evolved to be able to store and provide access to large databases of audio, and eventually video for personal playback. Today a proliferation of handheld devices provide access to all types of multimedia residing both on handhelds themselves, as well as on the world wide web. The iPhone, with full wireless capabilities, extended the possibilities of the iPod-like devices making them capable of creating and sharing visual and audio files while at the same time still providing to databases of media. One of the identified problems with these handheld devices, the small screen size, has provided considerable challenge in their implementation into teaching practice (Song, 2007). The most recent device on the market evolving from the iPod multimedia framework, the iPad, has resolved the screen size issue.

The problem identified in this poster session is: “How can a multimedia database be easily used as a teaching tool in the classroom.” This poster presents the evolution from iPod to iPhone to iPad for a teaching strategy that focuses on the use of the iTunes multimedia database on a mobile handheld device. This teaching strategy is made easier in mobile learning situations because of the iPad’s touch interaction capabilities. Although iPods have been around for some time, teachers need guidance with utilize this kind of new technology tool in the classroom in meaningful ways (Reid, Kervin, Vardy, & Hindle, 2006). The ability to share podcast presentations and (Kervin, Reid, Vardy, & Hindle, 2006; Vardy, Kervin, & Reid, 2007) mobile data collection capabilities are other aspects of the iPad that make it useful as a teaching and learning tool.
Application of the tool

Song (2007) comments that research needs to focus “more on making use of simple features of handheld devices for educational applications in context” (p. 44). The particular iPad use described in this poster session is within a Ukrainian folk dance class. Ukrainian dance lexicon and presentation are complex motor skills to teach, and more often than not, instructors themselves are not experts at every dance movement. This is especially so for the teaching of gender specific dance movements (Ostashewski, Reid, Ostashewski, 2009) when often only one dance instructor teaches the dance class. The iPad allows for mobile on-the-spot demonstration using exemplar videos from a large handheld database. The ability to finely control video playback and display it for small groups of students is a key affordability of this device. A small group demonstration strategy using the iPad in this classroom context is the implementation disseminated in this poster session. This small group strategy utilizes the multimedia iTunes application on the iPad device as the software tool for the implementation. Student familiarity with the iTunes application adds to the process, as students too can take control of the multimedia creation and playback.

The small group demonstration strategy by which the iPad is being used in the specific teaching context centers around the following processes and capabilities:

- Ease of demonstration using video clips: to present exemplars for student review, to present classroom extension and support videos.
- Fully controllable playback of video and audio database components.
- Ease of creation of playlists
- Ease of interaction in mobile situation (due to touch screen interactions)
- A key component of the described use is as an extension of the video iPod or iPhone capable of recording video and then adding it to the iPad database.
- Fully mobile demonstrations using images, audio, and images.
- Access to YouTube videos using WIFI that allow for classroom extension of the multimedia database.

A critical component of successful iPod and iPad use in the classroom, for the described small group demonstration strategy, is the ease with which custom multimedia is created for the iPad. An exploration of the preparation and creation processes for the development of a useable iTunes video database on the iPad will be presented. The evolution of these processes over the past few years will be presented, as well as current streamlined practices when used in conjunction with video iPods and iPhones. The processes outlined include:

- Capturing audio or video from non-digital sources
- Converting video for iPod and iPad playback
- Recording video using Video iPod
- Recording video using iPhones
- Playlists and database structure for ease of use
- Advanced playlist creation for large iTunes databases

Conclusion

The iPad is a new mobile handheld device tool that provides a variety of multimedia access options. One key option includes on-the-spot access and playback of video from an iTunes multimedia library. Teaching strategies, tactics, and applications of this new mobile tool are important to share with the educational technology field as educators look toward research dissemination for best practices. Ease of use and descriptions of these types of iPad teaching strategies may result in their successful integration into the classroom. This poster session presented a small group demonstration strategy in an effort to share successful implementation experiences with the educational technology field. The application of this new mobile tool is likely expandable to other physical education or psychomotor learning contexts where physical skill development towards an expert level is being sought. Further research includes an
examination of how data collection capabilities and base applications further extend the iPad a useful teaching tool.

References


