

## **The Effect of Handheld Technology Use in Pre-Service Social Studies Education on the Attitudes of Future Teachers towards Technology Integration in Social Studies**

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2003-2005 (in progress)

### ***Research Questions***

- Is the Handheld Computer Attitude Survey (HCAS) a valid and reliable instrument to measure pre-service teacher attitudes toward handheld computers?
- Does the HCAS measure handheld computer confidence/anxiety, handheld liking, handheld usefulness, and attitudes toward academic endeavors associated with handheld computer training?
- What is the effect of handheld technology integration and level of handheld computer use on pre-service social studies teachers' attitudes toward technology use in social studies education?

Until fairly recently, research in the area of technology use in social studies education (both K-12 and pre-service education) has been a low priority (Berson, 1996; Martorella, 1997), often due to limited access to technology, a lack of knowledge and training related to hardware and software, the extensive time commitment required to integrate technology, and a lack of expectations for use in social studies (Ehman & Glenn, 1990; Whitworth & Berson, 2003). In addition, publications that do exist in the area of technology use in social studies education have been primarily focused on Internet resources for teachers. Examples of systematic research in the area of the effectiveness of technology integration in social studies education are few and far between or suffer from methodological weaknesses (Shaver, 2001; Whitworth & Berson, 2003).

While the current project builds on existing research in the area of student attitudes toward computers (see Liu & Johnson, 1998), it is designed to fill a void in the aforementioned area of social studies by testing an instrument for and gathering and analyzing information about the integration of handheld technology in pre-service social studies education, and how this affects the attitudes of pre-service social studies teachers towards technology integration, social studies, and social studies education.

The reason why this study focuses on pre-service training instead of in-service staff development is the argument that beliefs and attitudes towards teaching are formed during pre-service training (Hardy, 1998; Wallinger, 1997), positive attitudes towards technology will be easier to create and maintain, and will be more difficult to alter (Pajares, 1992). In addition, training pre-service teachers to be agents of change in technology integration has an even more powerful effect. Teachers who use technology in their teaching will provide for more access to computers, thereby creating more computer-literate university students. Those students choosing to enter the teaching profession will then tend to be more positive towards integrating technology (Sheffield, 1998). More positive teachers will make technology adoption and successful technology use easier and more effective (Lawton & Gerschner, 1982; Stevens, 1980), thereby creating and maintaining an upward spiral of usage.

### ***Preliminary Findings***

Pending