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THE EFFECT OF HANDHELD TECHNOLOGY USE IN PRE-SERVICE SOCIAL
STUDIES EDUCATION ON THE ATTITUDES OF FUTURE TEACHERS TOWARD
TECHNOLOGY INTEGRATION IN SOCIAL STUDIES (128 PP.)

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This study investigates the effect of handheld computer integration in a secondary social studies methods course on the attitudes of pre-service teachers toward technology integration in social studies classrooms. An existing instrument, the Computer Attitude Scale (CAS), was modified into the Handheld Computer Attitude Scale (HCAS), and pilot tested with a sample of 94 pre-service teachers in secondary social studies, math, and language arts training programs at a public university in the Great Lakes Region. During the 2003-2004 academic year, the HCAS was administered three times to this pilot sample, and was found to measure three underlying factors: handheld anxiety, handheld usefulness, and working with handheld computers. Both validity and reliability were established for a shortened, 27-item instrument.

The main phase of the study examined the effect of handheld computer integration on pre-service teacher attitudes toward technology integration in secondary social studies classrooms. Participants during this phase consisted of 36 pre-service teachers enrolled in two sections of a secondary social studies methods course at the same institution as the participants in the pilot sample. Participants completed the HCAS three times throughout the 2004-2005 academic year. Repeated measures MANOVA indicated

that there is a statistically significant, positive difference over time of the combination of the three factors (handheld anxiety, handheld use, working with handhelds) across groups. This means that handheld use in a pre-service teacher social studies course has a positive effect on pre-service teachers' attitudes toward handheld computers over time. Univariate, post-hoc analysis showed that there is a statistically significant, positive difference over time for the factor handheld use only.

The results emphasize the importance of validating instruments with a similar sample before actual data is collected. Moreover, the findings from the main study provide cautious optimism for the impact of handheld technology integration in teacher training programs on pre-service teacher attitudes toward technology integration in secondary social studies classrooms.