The Effect of a Persuasive Game on Attitude and Affective Learning

Dana Ruggiero
Bath Spa University
Newton St. Loe
Bath, BA2 9BN
+44 01225 875535
d.ruggiero@bathspa.ac.uk

ABSTRACT
To investigate whether a persuasive game may serve as a way to change attitude towards the homeless and increase affective learning, this study examined, experimentally, the effects of persuasive rhetoric and ethos in a video game designed to put the player in the shoes of an almost-homeless person for thirty days. Data were collected from 5139 students in 200 middle and high school classes across four states. A short game that included persuasive rhetoric and ethos aimed at increasing positive attitude towards the homeless was used. Classes were assigned to treatment groups based on matching.

Two treatment conditions and a control group were employed in the study. A control group only participated in the measures. The reading group read a short first-person story about being homeless for a night and the game group played Spent, a publicly available video game developed by the Durham Homeless Coalition. Prior to completing the treatments half of the participants took a pretest consisting of the Attitude Towards the Homeless (ATHI) measure and the Affective Learning Scale (ALS) based on a Solomon design. Immediately after treatment all participants took the posttest. Three weeks later all participants retook the same test.

The findings indicate that playing the game did not appear to immediately change student’s attitude towards the homeless score significantly. Moreover, reading about homelessness appeared to negatively affect student’s homelessness attitude score significantly. Further examination revealed that playing the game or doing the reading significantly increased the affective learning score immediately after treatment with the game group scoring 1.57 points higher and the reading group scoring .66 points higher out of a score of 6. After three weeks the game group scores significantly higher on the ATHI than the control group but was not significantly different from the immediate posttest. After three weeks the reading group did not score significantly different than the control group on the ATHI nor were the scores significantly increased or decreased from the immediate posttest or the pretest. Finally, all three groups affective learning score decreased from the immediate posttest but the game group was significantly different from the control group in a positive direction.

Findings indicate that students who played the persuasive game Spent sustained a higher score on both the ATHI and ALS after three weeks. Moreover, the level of initial change...
in the game group was negatively correlated to the grade of the student for both the ATHI and the ALS. Overall, findings suggest that when students play a video game that is designed using persuasive mechanics an attitudinal and affective change can be measured empirically.

**Keywords**
persuasive game, affective learning, serious games, social issues

**BIBLIOGRAPHY**