Crystal Island

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Story-Based Learning: The Impact of Narrative on Learning Experiences and Outcomes

- NLE = Narrative-centred learning environment e.g. military training game
- Aimed to conduct an empirical investigation into learning
- Also considered motivational benefits e.g. self-efficacy, presence, interest and perception of control
- Crystal Island: Narrative-centred learning environment (NLE) based around a scientific investigation on an island
- 88 F and 91 M participants split into 4 groups: Holdout (control), Narrative, Minimal-narrative, Powerpoint
- Procedure: Pre-test (6 surveys including curriculum test), 50 minute gameplay, Post-test (5 surveys including the same curriculum test)
- Results: See graph
- Narrative condition had better presence, and self-efficacy, interest, presence and immersion are correlated
- Discussion: Narrative version may have too much cognitive load, future work needs to address longitudinal effect on learning, mastery vs performance focused students
Story-Based Learning: The Impact of Narrative on Learning Experiences and Outcomes

Percent Correct

Pre-test  Post-test

- Holdout
- Narrative
- Min. Narrative
- PowerPoint
Our decision: Weak Accept

+ Clearly written
+ Succinct
+ A good introduction to the field of NLEs
+ Empirical approach
+ Considers the various ways to assess ALEs
+ Highlights some relevant issues

- Lacks descriptions of and justifications for test materials
- Missing all the results data
- Discussion section could be more detailed
- Lacks screenshots and visual aids
Other comments

- Methodology flaw was only briefly mentioned at the end of the paper
- Empirical assessment was limited to learning gain, not motivational aspects
- Some language was confusing e.g. “somewhat significant”
- Appendix lacked link to game