Story-based Learning: The Impact of Narrative on
Learning Experiences and Outcomes
(S.W. McQuiggan et al. 2008)

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Overall Decision -- Weak Accept
Pros
- Clearly stated research objective at the beginning of the paper
    - Motivated by little existing empirical evidence, existing study results not thorough enough
    - Good background provided -- e.g. specific examples of NLEs applied to various domains
- Good design of the study
    - Relatively large sample size
        - Some of us believed the sample size was not big enough, some thought it was sufficient
        - Perhaps some power analysis could be show to the reader to confirm the ecological validity of the results
    - Participants split into well-separated groups
    - Pre- and post- conditions for
        - Learning outcomes
        - Self-efficacy
- Good overview of the game's narrative - setting context
- Results presented well
    - E.g. values of statistical measures presented
- Good metrics for the evaluation
    - Questionnaires addressing different dimensions of motivation
        - Self-efficacy
        - Immersion tendencies
        - Achievement goals - learning style
- Acknowledgment of limitations:
    - Proposed extension to a long term study
    - Proposed investigation of narrative factors that contribute to motivation and self-efficacy

Cons
- Mistakes in execution
    - Control group did not get a post-test on content knowledge -- so the purpose of a control group not realised
- Time pressure of participants
    - Participants had only 50 mins to complete the game. Task-based rather than time-based completion should be decisive

- ○ Especially important, if narrative-heavy condition takes more time to cover concepts
- ○ Only 42% participants completed whole task.
- Conclusions drawn in respect to "presence" more so than "learning outcomes"
  - ○ As the research objectives were to investigate the learning gains of NLEs, the line between the results regarding the actual research objectives and additional results found concerning presence and self-efficacy is not drawn.
- Line between research objectives and what was found in addition to that is not clear