

G5DGAM – Courseworks 2a & 2b

Evaluating Digital Games: Research Design and Prototype

Deadline: 12th May 2006, at 3:30 pm (both parts 2a AND 2b)

Hand in a draft of 2a before the 24th April to have the feasibility of your game design approved before starting on part 2b.

Part 2a: Research Design

Malone's Ph.D. work in the late 1970's and early 1980's used a number of ablation experiments on simple computer games in order to develop a theory of what makes games fun to play. In their 1987 paper, Lepper and Malone described their taxonomy of motivations in terms of the individual motivations, *challenge*, *fantasy*, *curiosity* and *control*, and the interpersonal motivations, *competition*, *co-operation* and *recognition*. This taxonomy was then subdivided into motivational sub categories such as goals, uncertainty, feedback and self-esteem (all included under challenge).

Pick one of the sub categories from Lepper and Malone's taxonomy and design an ablation experiment to examine its motivational effect on the design of a simple computer game. Your full game design should include aspects from each of the challenge, fantasy, curiosity, control and recognition categories of the taxonomy (competition and co-operation are optional). You will be required to build a prototype of this game for part 2b of the assignment, although you will not be expected to complete the evaluation.

Your design should include:

1. A detailed description of your full game design justifying how it incorporates the challenge, fantasy, curiosity, control and recognition aspects of the taxonomy. You should structure your justification within these five groups but may include sub categories from other referenced sources that are not included in Lepper and Malone's original taxonomy [12 sub points at 5 marks each = 60 marks].
2. A description of the difference between the full and ablated version of your game, and a justification of how this difference can be used to support the relevance of your chosen sub category of the taxonomy [20 marks].
3. A description of the method you would use to perform the evaluation, including subjects, timings and experimental design [20 marks].

A total of 2000 words plus references.

Useful starting points:

- Malone, T. W., & Lepper, M. R. (1987). Making Learning Fun: A Taxonomy of Intrinsic Motivations for Learning. In R. E. Snow & M. J. Farr (Eds.), *Aptitude, Learning and Instruction: III. Conative and affective process analyses* (pp. 223-253). Hillsdale, NJ: Erlbaum.
- Habgood, M. P. J., Ainsworth, S. E., Benford, S. (2005). Endogenous Fantasy and Learning in Digital Games. *Simulation and Gaming*, 36(4) 483-498.
- Your research methods course notes!

Part 2b: Practical Design

"[...] there's a world of difference between having a great idea for a game, and being a great game designer. The initial idea is simply the seed from which the game grows, or the stone from which the pillars are hewn. The role of Designer is to fully realize the vision; conceiving and continually refining the various supporting mechanisms to make them mesh like the components of a Swiss timepiece."

Phil Wilson, Producer, Real time Worlds.

Construct a prototype of the non-ablated version of the game design you created in part 2a. You should only consider this design as a starting point and part of the aim of the exercise is to demonstrate an evolution in your design as you implement and test it. Another aspect of this exercise is to demonstrate that you can tell the difference between 'gloss' and game mechanics in games. Your finished prototype should contain three example levels pitched at players of different abilities.

You should submit:

1. An early version of the game without any 'gloss' demonstrating the game mechanics that underlie the game's design [.gm6 format file].
2. A first finished version of the prototype with added gloss – but before it has been tested on other players. Try to include as many types of gloss as you can, but don't spend much time creating resources, as **no marks** will be awarded for artistic content! [.gm6 format file].
3. A final version of your game after it has been tested and modified based on your findings [.gm6 format file].
4. Up to 1000 words in note form detailing the changes you made between the first and last versions of the game and why [word/pdf format].

Marks will be awarded as follows:

- Producing a core mechanic that is fun to play [20 marks].
- Showing the difference between mechanics and gloss [10 marks].
- Demonstrating a considered evolution in your game design (including testing on other players) [20 marks].
- Level design (three levels – different difficulties) [20 marks].
- A feature that encourages 'good' emergence [10 marks].
- Polished gameplay (nothing to do with graphics/audio) [20 marks].
- No marks are awarded for artistic content or programming prowess, so please remain focussed on the game's design!

Useful starting points:

- Habgood, J., Overmars, M (2006). The Game Maker's Apprentice: Game Development for Beginners, Berkeley (CA): APress.

Your finished work should be submitted electronically to Jacob Habgood (mph@cs.nott.ac.uk) in by 3:30pm on the 12th May 2006. Late work will be subject to the School's standard penalty of 5% deduction of marks per working day late. These courseworks respectively count for 30% and 40% of the marks for the module.