

Chapter 17

Formulating a Serious– Games Design Project for Adult Offenders with the Probation Service

Matthew Ian Bates

Nottingham Trent University, UK

David Brown

Nottingham Trent University, UK

Wayne Cranton

Nottingham Trent University, UK

James Lewis

Nottingham Trent University, UK

ABSTRACT

This paper documents an investigation evaluating if adult offenders can benefit from a facilitated serious-games design project as part of their probation program. Research has observed a participatory design group of adult offenders working with their probation managers and a PhD researcher to create a new serious-game for use by the probation service. A voluntary participant group of six male offenders was observed over a five week design process using the game authoring software Game-Maker. Weekly meetings have allowed participants to learn basic game authoring skills and share design ideas within a multi-disciplinary team. Investigators have observed the amount and type of assistance required by participants when interacting with new software, the range and suitability of ideas communicated by participants, and the ability of participants to convert their ideas into functional media. This paper presents qualitative results from this exploratory field study and compares the results to previous investigations with secondary school children.

INTRODUCTION

The field of serious-games represents new markets for non-entertainment uses of gaming technology. Previous work exploring the design of serious-games with secondary school children (Bates et al.,

2009a, 2009b) has enabled learners to collaborate with their educators via a process of learning by designing. This generation of learners represent *digital natives* (Prensky, 2001) who regularly create and modify content to educate their peers via social networking and multiplayer gaming

DOI: 10.4018/978-1-4666-1864-0.ch017

(Steinkuehler, 2008). To advocate the potential of serious-games design projects as effective methods of engaging with learners of all ages, the serious-games design methodology must also be applied to Prensky's *digital immigrant* adult learners.

This paper documents a serious-games design project working with adults at risk of social exclusion. The project has formed part of a new diversity objective for a regional probation service to address the under representation of Minority Black Ethnic (MBE) offenders entering employment, training and education upon conclusion of their probation program. The project has allowed offenders an opportunity to improve their communication and presentation key skills through interactions within a multi-disciplinary team of learners, educators and researchers. Participants have attended weekly design workshops using the Game-Maker authoring software to design and create a new serious-game for use by probation managers. Participants have combined their own experiences using the probation service to create a prototype for a serious-game to educate offenders on making appropriate lifestyle choices upon leaving probation. Probation managers have praised the project for its ability to encourage communication and team work amongst participants and are now looking at methods of expanding the project to complete the game design for use as a training tool within the service.

BACKGROUND

The *instructionist* approach of framing school-like exercises in the form of digital media is being replaced with the *constructionist* approach of allowing pupils to construct their own learning through design of new materials (Kafai, 2006). Serious-games design projects aim to create "constructionist learning environments" where the learner is actively engaged in creating something as part of a supportive community (Bruckman, 1998). Investigations using simple text-based

virtual reality environments in the classroom (Bruckman & DeBonte, 1997) found existence of "peer experts" who provide supportive feedback, and help others sustain interest in an activity which the authors consider vital to the success of games-based learning activities. These "powerful learning environments" stimulate both active and autonomous learning amongst young learners but most teachers do not make use of these practices and so computers are often used to complement rather than enhance current pedagogies (Smeets, 2005). Research outside of the classroom into Massively Multiplayer Online games such as World of Warcraft has uncovered that these on-line gamers express a "collective intelligence" driven by a desire to learn the mechanics of play through exploration and competition with others (Steinkuehler, 2008). Here, gamers are motivated to produce unofficial user manuals which supersede their official counterparts and create social scaffolds for new players via digital discourses. An important question for both designers and researchers of serious-games is how to adapt these products from simple teaching agents into modern facilitators of discourses between learners and their educators.

With increasingly powerful games development software available from both commercial games companies (Unreal Development Kit) and non-profit online communities (OGRE 3D), there is now potential in allowing learners to instruct, monitor and evaluate the learning of their peers by creating their own serious-games. Game-Maker (<http://www.yoyogames.com/make>) is an example of accessible game authoring software which offers gamers access to support from an online community and requires little or no prior programming knowledge or a paid subscription to use. The software allows users to quickly assemble prototypes for simple games via an object-orientated approach of creating and combining resources such as backgrounds, sprites and sounds (Overmars, 2004). Use of these prototyping tools creates a process of "participatory design" (Druin,

8 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/formulating-serious-games-design-project/70199

Related Content

Selecting and Evaluating Learning Objects

Ellen Whybrow (2004). *E-effective Writing for E-Learning Environments* (pp. 94-117).

www.irma-international.org/chapter/selecting-evaluating-learning-objects/8966

Do Current Standards Support Adaptive Sequencing Interoperability?

Sergio Gutierrez-Santos (2011). *Handbook of Research on E-Learning Standards and Interoperability: Frameworks and Issues* (pp. 106-125).

www.irma-international.org/chapter/current-standards-support-adaptive-sequencing/46354

The Children's Virtual Museum of Small Animals: From the Schoolyard to the Internet

Paolo Beneventi (2013). *Handbook of Research on Didactic Strategies and Technologies for Education: Incorporating Advancements* (pp. 1-14).

www.irma-international.org/chapter/children-virtual-museum-small-animals/72052

The Learning Technologies Model

Richard Caladine (2008). *Enhancing E-Learning with Media-Rich Content and Interactions* (pp. 101-133).

www.irma-international.org/chapter/learning-technologies-model/18322

Cyber-Ethnography: The Emerging Research Approach for 21st Century Research Investigation

Elizabeth Keeley-Browne (2011). *Handbook of Research on Transformative Online Education and Liberation: Models for Social Equality* (pp. 330-238).

www.irma-international.org/chapter/cyber-ethnography-emerging-research-approach/48878