Teachers’ Views on the Approach of Digital Games-Based Learning within the Curriculum for Excellence

Aishah Abdul Razak, University of the West of Scotland, UK
Thomas M. Connolly, University of the West of Scotland, UK
Thomas Hainey, University of the West of Scotland, UK

ABSTRACT
A radical reform in education has happened in Scotland by introducing a new curriculum known as the Curriculum for Excellence (CfE). This new curriculum promotes active learning, including use of digital games-based learning (DGBL) technology. This paper presents the findings from a survey which aimed to gauge the use of DGBL in Scottish primary schools and to assess how such an approach fits within the CfE from the teachers’ perspective. The trends identified from this survey are discussed in relation to the teachers’ views and motivation to DGBL. Despite obtaining positive responses on many aspects of DGBL, the survey shows that the application of this approach is still limited and requires an in-depth study on how to make it more popular and effective for primary school teachers. The findings from this research will make an important contribution to the empirical evidence of games-based learning particularly with regard to its application in primary school education.

Keywords: Curriculum for Excellence, Games-Based Learning, Primary School, Teachers’ Views

INTRODUCTION
In response to the concerns that have been raised in the 2002 “National Debate on Education”, set up by an earlier Scottish Executive to develop its long term education policy, the Scottish Government has produced a new curriculum known as the Curriculum for Excellence (CfE) (Scottish Executive, 2004). This new curriculum was introduced in November 2004; however, it was only fully implemented across all Scottish schools in Autumn 2010. This curriculum aims to prepare young people for an ever changing world and helps them to become successful learners, confident individuals, responsible citizens and effective contributors. To achieve these aims, the CfE emphasises the development of a set of abilities for learners such as

DOI: 10.4018/ijgbl.2012010103
core literacy, numeracy and communication skills; the ability to use technology for learning, to think creatively and independently, to learn independently or in a group, to make reasoned evaluations and the more general ability of applying learning to new situations. This is done by promoting active learning, which means encouraging young people to think, question, research and work together rather than regurgitating information using traditional learning approaches. In general, this is an example of a constructivist approach to learning, which emphasises the concept of an active, experiencing student in a situation where knowledge is not transmitted to the student, but constructed through activities or social interaction. Constructivist learning emphasises the five different attributes of meaningful learning, which are: (i) intentional learning, (ii) active learning, (iii) constructive learning, (iv) cooperative learning, and (v) authentic learning (Jonassen, Peck, & Wilson, 1999).

The driving force of the CfE is to focus on learners’ needs, including offering personalisation and choice. Teachers and other practitioners prepare the teaching plans based on the national guidance called Experiences and Outcomes - a rigorous framework for progression. It is then up to professionals to plan and deliver effective learning in a way that works best in their local context. In summary, effective learning is achieved when:

- Learners are motivated and eager participants in their learning,
- They are aware of their progress and strengths,
- They make appropriate progress from their prior levels of attainment and wider achievements,
- They are responsible and contribute actively to the life of the school and the wider community,
- They are actively involved in their own learning and development and demonstrate increasing skills, and
- At all times, learners are treated with equality, fairness and respect.

Each school focuses on improving the classroom learning experience and pedagogy based on the resources that they have and apply the Teaching for Effective Learning (TfEL) strategies. TfEL aims to establish a positive climate for learning by ensuring that learners have access to a wide range of experiences that promote active learning and motivates learners think. To enrich teaching and to support and motivate learners, TfEL requires a varied and considered range of skilful and well-paced teaching approaches which includes making well-judged and appropriate use of information and communications technology (ICT). TfEL methodology adopts a contextualised, active, collaborative and cognitive approach to learning that is relevant, meaningful and promotes enjoyment (Glasgow City Council, 2009). To ensure that learning is motivating and that learners’ needs are matched, TfEL encourages purposeful interaction and positive relationships between teachers and learners.

In line with principles of the CfE to promote challenge and enjoyment in children’s learning, digital games-based learning (DGBL) is one of the important learning approaches that Learning and Teaching Scotland (LTS) is committed to explore, promote and develop. The aim is to encourage pupils to become not only consumers but also creators of games. LTS’s DGBL initiative, The Consolarium, has become the platform for the teachers across Scotland to explore a range of computer games and game making tools and share their experience on how the appropriate use of computer games can have a positive impact on teaching and learning. LTS has claimed that a range of games-based technologies are now being used to help make teaching and learning experiences within CfE challenging, demanding and appealing in classrooms throughout Scotland. The following sections will discuss some of the previous research in DGBL, the survey methodology and
Related Content

The Pedagogical Application of Alternate Reality Games: Using Game-Based Learning to Revisit History
Ronan Lynch, Bride Mallon and Cornelia Connolly (2015). International Journal of Game-Based Learning (pp. 18-38).
www.igi-global.com/article/the-pedagogical-application-of-alternate-reality-games/128265?camid=4v1a
Game-Based Learning and Information Literacy: A Randomized Controlled Trial to Determine the Efficacy of Two Information Literacy Learning Experiences
[www.igi-global.com/article/game-based-learning-and-information-literacy/188609?camid=4v1a](www.igi-global.com/article/game-based-learning-and-information-literacy/188609?camid=4v1a)

Designing an Online Assessment in E-Learning
[www.igi-global.com/chapter/designing-online-assessment-learning/4745?camid=4v1a](www.igi-global.com/chapter/designing-online-assessment-learning/4745?camid=4v1a)

Games for Social Change: Review of the Potential for Multi Player Online Gaming to Facilitate the Emergence and Growth of Progressive Movements for Social Change within Youth and Community Work
Paul Keating (2016). *International Journal of Game-Based Learning* (pp. 73-86).
[www.igi-global.com/article/games-for-social-change/167665?camid=4v1a](www.igi-global.com/article/games-for-social-change/167665?camid=4v1a)