Chapter 39
Using Games for Primary School:
Assessing its Use with Flow Experience

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ABSTRACT

Computer games are a form of e-learning; the player is able to learn at his own rhythm in a fun, but effective way. One of the most important aims of these educational games is to motivate the pupils to make learning easier by using their own experiences. This study is based on the flow experience introduced by Csikszentmihalyi (1975). The person who undergoes the flow experience feels pleased and fully emerged in what he is doing and tends to repeat the activity. In the context of this study, information has been gathered through questionnaires utilizing the five dimensions of the flow state. The sample used consisted on twenty nine pupils; each of them played five games. At the end of the study, it was possible to conclude that the pupils experienced the flow and that it had a positive effect on their learning experiences.

INTRODUCTION

When planning any educational or learning process, it is important to be aware of the philosophy underlying it. It is this awareness that allows us to select the proper activities to develop any educational or learning process.

Many factors can be reformulated to meet the dialectic of teaching and learning, the layout of the courses, the role of the educators and the learners, the use of new forms of communication to compensate the missing physical contact, participation and evaluation (Lima & Capitão, 2003). A proposal for learning is possible only in environments that generate interaction, collaboration, production of knowledge and ability to customize education, requirements to a constructivist perspective, reflective, collaborative processes that enable self-learning.

Computer games are considered very effective when built to solve a specific problem or teach specific skills or knowledge (Griffiths, 2002). They are an excellent vehicle to explain certain content's which may present some difficulties in viewing or manipulate with some concrete materials, such as Mathematics, Science and Programming (Doolittle, 1995). These games have been used successfully between students, increasing the forms of creativity and critical thinking.

The focus should be to create in the players, the desire to learn and to make them enjoy the process, it is necessary to hide the fact that these are learning and integrate the players as much as possible in the game.

This study presents the theory behind the design of computer games and how these characteristics can be adapted to the teaching of academic content, providing the opportunity to create environments for learning scenarios which are characterized by being interactive, efficient, accessible and easily distributed (Harlow, 2004).

LEARNING PHILOSOPHIES

This work has a numerous number of Learning Philosophies that we will present, with special focus for the ones that refer to the student as an active agent in the learning process, which this student is capable to create his own world and is also capable to learn in a continuous way.

Incidental Learning

Learning occurs whether they will be aware of it or not (Allee & Butterworth, 1997). It is the kind of learning that will most often be used during the life of each one of us. One of its strengths is that people do not have the notion that they are consuming information and generating knowledge.

Action Learning

People are motivated to learn, because they need to perform a specific task for which they do not have enough knowledge "learning requires action and action requires learning" (Lankard, 2005). Learning occurs because there is contact with other people who have to perform the same task, which may involve formation, work and group dynamics.

Learning by Teaching

It is common in some contexts of training, to hear that when you want to learn something, the best way is to "say it by our own words". When explaining something to someone (and this is a practice associated with learning through education), the person is not only concerned to previously document himself but also to explain the reason he uses it. This way, you also have the opportunity to explain your self's, detecting doubts and understanding ideas that haven't been consolidated yet. It is also an opportunity to externalize knowledge, which is a compulsory component of the learning process (Nonaka & Takeuchi, 1995)

Learning from Mistakes

When in the course of an activity we error, it is normal to want to know what failed and why. May be a good opportunity to deepen the study of the theory that supports the practice, resulting in further study of the concepts (Russell, 2006).

Learning by Exploring

This philosophy of learning emerges as the highest expression paradigm based on the student. The teacher plays only the role of facilitator, clearly explaining the objectives of the work and providing some guidance. The student has the opportunity to explore the existing material and to deepen his knowledge (Collins, et al., 1991).

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