# The Education GameUsing Gamification in the Classroom

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**Abstract** *Modern Classroom Education faces many unprecedented challenges and opportunities as a result of rapid developments in digital communication technologies since the birth of the Internet in the early 1990s. Since that time, the generation of students known as "Digital Natives" have been born into a world where desktop and home computers are commonplace, video games are available in homes as well as arcades and mobile phones are becoming ubquitous. As a consequence, for the first time in history, children have access to electronic devices which they can explore and interact with, sharing their experiences and problems with their peers. This paper examines the impact of digital technologies on teaching roles and practices in the classroom and illustrates how the concept of "Gamification" can provide a modern day solution to traditional teaching best practices.*

**Keywords:** *Education game, digital technology, Gamification*

## Introduction and Background

The teacher-pupil relationship has always played a vital role in education and a large proportion of adults give substantial credit for the role that teachers have played in shaping their chosen careers and their interests and passions. Teachers have occupied a very important status in society for their influence on the future direction of their students, not just for the knowledge and skills that they impart to their students. Inspirational teachers have always had an ability to develop personal learning and development relationships with the students in their care. In some instances these influences are based on a recognition of and admiration for a teacher's depth of knowledge of a subject strengthened by the teacher's enthusiasm and ability to communicate effectively. In other instances, the influence of the teacher is based on their ability to understand and recognise

the strengths and weaknesses of the student and adapt the teaching in a personal way to the student.

Disruptive digital communications technologies are now sparking a revolution in learning and development because of the role that computers, mobile phones and tablets are playing in providing rapid and intuitive access to knowledge and providing tools that allow students to share information with each other so that instead of education being primarily about the transfer and acquisition of existing knowledge, it is increasingly about the exploration and discovery of new knowledge. As a consequence, much of what is taught at all levels of education is out of date or redundant and students, through access to technology, are no longer reliant on human teachers for the acquisition of knowledge.

## The Changing Role of Teachers in the Classroom

The traditional role of teachers in the classroom has often been described as "The Sage on the Stage", implying a teacher-centric education model in which the teacher's main role is to transfer knowledge. Today, it is not only the fact that students can easily acquire information and facts from the internet that makes this traditional role no longer appropriate but it is also our rapidly changing world and discoveries of now knowledge that makes it all but impossible for teachers to keep up to date. Consequently, teachers' primary role is transforming to being one of learning facilitation as a "Mentor in the Middle". Where teachers have lost their status as primary sources of knowledge, they still retain an advantage of life experiences over their students and it is there life experiences that can equip them with some of the skills needed in the digital age.

## Gamification and Games in the Classroom

There is nothing new about applying games mechanics and using games in education. Teachers have been using gamification and games throughout history. Games provide a learning environment which gives us a chance to understand the world around us and develop our own capabilities.

## Figure 1: Peter Bruegel Childrens Games (1560)



The painting by Peter Bruegel illustrates the diversity of games in the Middle Ages. There are some games which are solo activities and others which are team games whose outcomes depend on collaboration and competition. The strength of games as a learning and development tool is that they are entered into voluntarily because there is an intrinsic motivation to engage in games. This intrinsic motivation can come from fun and enjoyment and/or a sense of achievement in personal performance or outcomes.

## Gamification Elements

Deploying Games mechanics and games in the classroom effectively benefits from an understanding of the elements and influencers that determine the level of engagement and impact of gamification. It is also important to link the Gamification or games to specific learning outcomes to ensure that the learning objectives are met and to provide adequate time and attention to debriefing and reflection.

**Figure 2: Gamification Elements**



Games mechanics use gamification elements into everyday situations like the classroom. Their primary purpose is to trigger engagement and attention. These elements are all present in varying degrees in computer games and teachers can and do use these elements to enhance the teaching process. This paper suggests that if teachers can consciously think about these elements as part of developing productive relationships with their students, they can not only achieve better outcomes but can also have a lasting impact on the lifelong development of their students

# Gamification Influencers and the Changing Role of Teachers

## Figure 3: Gamification Influencers



Gamification influencers are factors which have always been present in games mechanics but are now increasingly affected by developments in technology. One of the most important historical influencers for the Teaching Profession has been "Authority". Teachers have historically enjoyed strong levels of authority brought about by their superior knowledge which commands attention and respect but in an age when answers can be found instantly on a 24/7 basis from the internet, this level of authority has been eroded and teachers can no longer rely on authority as a major influence in engaging students.

Teachers now have to recognise that students are influenced by many different factors and sources and therefore teachers have to compete with influencers beyond their control. An understanding of influencers such as Accessibility, Adjacency, Alignment and Aspiration can help teachers to strengthen their facilitation skills and build engagement and respect.

# The Education Game

In many ways, Education is a persistent game in which teachers, parents and students interact with each other, competing and collaborating in varying degrees. Teachers still have the slight advantage of being in a de facto position of authority in the classroom but to be effective and enjoy the lifelong impact of their work on their students, they need to know how to play "The Education Game" on a rapidly changing playing field under rules and scoring mechanisms that are also evolving as technology shapes our future society.

## Figure 4: Engaged Students



In this challenging environment, there is no quick fix but using simple games mechanics based on card games which encompass challenges, chance/uncertainty, rules, memory and scoring is a very cost effective way to build relationships with students that help them to prepare for the "Game of Life."

# **About the author**

David Wortley is CEO and Founder of GAETSS (www.gaetss.com), a consultancy on the strategic use of Gamification and Enabling Technologies for the transformation of business and society. He is a recognised authority on the practical application of gamification and enabling technologies to address global challenges in areas such as health, environment and education. He is a serial technology innovator and has been a pioneer of emerging technologies for over 30 years. He is an expert advisor to the European Union and an accredited business mentor. His specialist expertise is in the commercialisation of disruptive digital technologies. He may be reached at david@gaetss.com.