The Influence of online business games on the level of motivation among 1407 Intake International Baccalaureate Students

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Abstract

This study examines the influence of playing online business games on students' level of motivation in their learning. The study was on 9 student from 1407 Intake International Baccalaureate students. Feedback from playing the online business games was collected using a survey method. This was done to check the level of student motivation in playing the online games. Students were given different learning tasks which incorporated the use of Google online business games. The motivation level was measured by the number of times a student played the online business games. It was found that playing online business games positively influences the level of motivation of students given the individual characteristics of skill and experience.

Keywords: On-line business games, Skills, Experience, Motivation

Introduction

As the use of online games has become a popular form of activity among students, there was a need to discover the influence of online business games on motivation. An article in the Electronic Journal of Sociology (1999) stated that computer aided instructions can create the interactive environment to learning that can stimulate student motivation. Piaget suggested that people learn best through active exploration. Vygotsky further established the importance of interaction between learners and teachers as necessary which can work with the integration of online business games being used as a teaching tool. Such online business games allows and involves interaction between the teachers and students, thus can guarantee learning. (Choi & Yeom, 1996; Marton 1994). All these findings indicate that online business games positively influences student motivation.

The purpose of this action research is to study if the use of online business games had an effect on the level of motivation among students.

Literature Review

On-line business games
Students are naturally enthusiastic about learning but many need stimulants, inspiration and guidance given by their teachers to make online business games meaningful. "Effective learning in the class room depends on the teacher's ability, to maintain the interest that brought students to the course in the first place."(Ericksen, 1978 p3). Online business games can be very focused on how it represents the learning content. For example, the integration of interface design with the representation of learning content necessitates instructor guidance.

How well a student learns with online business games depends on their attitude which is reflected through their learning styles. (CALL: T. Ravichandran) The aspect that can provide the necessary motivation to student learning would be when online business games are seen as a personal tutor to the student; providing almost instantaneous feedback, providing flexibility in creating the time to learn the material to suit each individual learner preference. It also provides syllabus guidelines and a variety of direct internet resources, one of which can be presented with varying degrees of visual and aural stimulants that appeal to different learners. More importantly with online business games, all these benefits are available to the student without constraint of time and place of learning.

Therefore, in using online business games, it has to be acknowledged that motivation levels must always be present as the student must be willing to spend that additional time to meet the learning objectives. How fast a student is able to master an area depends on the skill, which is taught and prior experience of the student in the tool and their attitudes towards learning. Prior experience with computer-related activities must be taken into account. With online business games, lessons can be developed to create rigorous learning by posting learning and testing materials made available on Google within a time frame. Furthermore online business games can give students the individual attention they need to their comments, questions and queries. The use of Google games application software can ensure guidance through the use of online games for business.

Motivation
Motivation is an individual's desire to learn course content, (Keller & Subhiyah, 1993), and interest in instructional materials, (Keller, 1993). According to Pintrich and Schunk (1996), the motivation level of a student influences how and why people learn as well as how they perform. Many factors affect a student's motivation to work and learn (Bligh, 1971; Sass, 1989); interest in the subject matter, perception of its usefulness, general desire to achieve, self-confidence and self-esteem. These are intrinsic in nature and can be influenced with the introduction of online business games in the learning process. Motivation is seen as the best predictor or measurement of student achievement (Oxford, Park-Oh, Ito & Samrall, 1993a & 1993b).

Researchers have identified aspects in the teaching situation that enhances students' self-motivation (Lowman 1981, Lucas 1990, Weinert & Kluwe 1987, Bligh 1971). The main aspects are to give students frequent and early feedback. Students should be assisted to find personal meaning and value in the material given to them. When online business games are used it also creates interest and can motivate a student to learn. Online business games allows the use of quizzes, animated graphic, actual pictures of theorists to make learning interesting. In fact drill exercises can also be conducted. Online business games will assist students in mastering and understanding the various concepts taught.

Experience
Experience is seen as a general concept comprising knowledge or observation of some thing or some event gained through involvement in or exposure to it. The history of the word experience aligns it closely with the concept of experiment.

Expectations of on-line learning and satisfaction with learning experiences strongly influence computer attitude, in that negative learning experiences or unmet expectations may discourage future on-line learning (Hayashi et al., 2004) The experience required of a student are in the areas of actual use of the personal computer, software applications, ability to manage their time and to be independent. According to Watkins et al (2004) the use of personal computer and its software amount to the need for prerequisite technical skills. Thus there was no real anxiety among the 1407 International Baccalaureate students in using online business games as they have all the requisite knowledge and experience. As the teacher, I was in control of the student's learning, so whether online business games are used as an alternative or complementary tool which really depends on how the learning is to be reinforced. Hence students will find it motivating when the learning process is structured.

The degree of student involvement in the learning will help understand the attitude of the student (Strand & Scantling, 1994). If students had fun learning, it will make them feel good and special (Solmon & Carter, 1995). Luke and Sinclair (1991) found that curriculum content was the most influential factor in the development of positive and negative attitudes towards learning. Thus with the use of online business games, these two factors can be combined to increase students' level of motivation.

Skill

Skill is determined by the confidence level in performing tasks and ability to apply the skills to online business games (Vuorela & Nummenmaa, 2004a). Online business games with "high-quality" interactions centered on teaching and learning process meets the goals of higher education. According to Pillay, Irving and Tones (2007) the importance of technical skills in the use of online business games have been largely ignored. However this paper will explore the use of online business games which is taught to the students so that prior skill is ensured. In such an environment, the students have greater responsibility for their learning which has to be structured and taught as a skill in itself and also to navigate through vast amounts of learning content. It is important for them to self-manage their learning (Kolb learning style inventory) with the guidance of the instructor.

According to Pillay, Irving and Tones (2007), "technical skills merely affect student engagement and not achievement". Lee et al (2002) however found that when students used technology which was more user-friendly it allowed for greater personal organization. The more experienced user took less time and fewer visits to pages and were able to adopt a more purposeful and strategic navigational process. Therefore students must be provided with the relevant skills to achieve reasonable results especially when the course content becomes easily accessible and planned.


A related and relevant factor to the antecedent skill is the confidence level of students in using ICT techniques (Vuorela & Nummenmaa, 2004a). In order to develop the confidence, it is important to know a student's current and prior experiences, degree of independent learning, support and encouragement. Furthermore studies by Wang and Newlin (2002) suggested that students attained higher grades when they use CAI than those who did not.

Budin (1991) found that a student's learning is enhanced by the use of computers. Students are considered to be more productive when using computers (Dwyer, 1994). However, Constance Mellon indicates that students are far less likely to benefit from online business games without the aid of an instructor to guide them. Software in each computer effectively guides students through a series of interrelated activities and instruction, addressing a variety of learning styles (Cotton).

Conceptual Framework

The conceptual framework shows the influence of the individual characteristics of playing online business games and on the level of motivation of the students. This shown in the Exhibit 1 below:

Exhibit 1: Study of the conceptual framework.
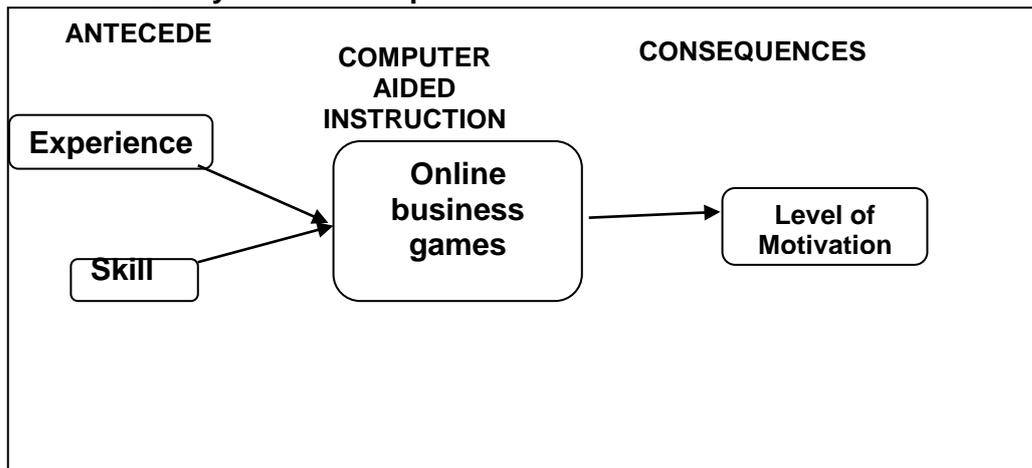
Research Methodology

These students were given exposure to the use of the online business games from Google in the classroom and were ensured of the skill and experience. Lessons were richly supported with lecture notes made available on-line. Self-administered tests were done on-line as well as discussion that allow for horizontal communication between students. The online business games were set and students were given constant guidance to minimize confusion. Students were given guidance and direction on how to effectively use the online business games for learning purposes for a period of one semester. Following this, a questionnaire was administered.
I showed them the results of their activities. They received scores and as they were playing I could monitor their progress and was able to determine the number of times they played the online business games.

There was a score board which I have access to. I would show them the score board. They could then see how well they were doing in comparison to their friends.

Three factors act as independent variables in this study: The three factors were divided into three categories: experience, skill and the online business games. Instruction through teaching, downloading, email, power point and discussion board was used to determine its influence on the level of motivation among the students

The students were asked questions to determine their level of experience with computer usage and skill on using online games for business. Hence the results will

help determine the influence of these factors on the level of motivation. For students, the most common motivating factor to learn is interest. The 1407 International Baccalaureate students had access to the online business games to use. However, there are other examples of motivation that drives students to spend more time to learn.

I provided them with a deadline of one day.
Results

When asked if they believed in their own ability to perform well in the game, all of them felt extremely confident. They enjoyed playing the game.

To the question as to whether they learnt while playing the game, they all felt they did. This was because they were able to play the games repeatedly, thereby allowing them to practice the questions that they got wrong. This increased their understanding of the topic.

One sure benefit was that some of the students became more aware of their strengths and weaknesses. By repeating the questions it helped them remember the concepts. The fact they saw it as a game it reduced the pressure when they answered the question incorrectly. The excitement was further fueled by the fact that they had to do the thinking within ten (10) seconds. This forced them to think faster and more accurately.

However one student preferred to learn from books and her own notes instead of playing games. The student felt that she did the questions repetitively and got the answer, but it was not a true reflection of her learning.

So it can be concluded that when students played an active role in this online games for business activity, they were able to construct new knowledge on the topic. If there were difficult questions, students used the time to read the textbook and notes to clarify their doubts. This shows the initiative they had taken for their own learning. In this area there was minimal teacher intervention.

Playing the online business games many more times was done to just improve their score. Furthermore by playing the online business games, they developed problem-solving skills and were able to experience the inquiry activity. Playing the online business games enabled the students' to restructure their own thinking. Most importantly they were motivated and excited.

Implications

Given the continued investment in online business games, the understanding of experience and skill as a prerequisite in successful use of online business games, provides the need to study the influence of online business games on motivation level of students. Thus as outlined in Pillay *et al* (2006) the initial exploratory and confirmatory factor analysis was used.

The findings of this study indicates that individual characteristics does influence the use of online business games given. Students had significantly increased their use of online business games. This has influenced the level of motivations of the students in the study.

This access has enabled them to acquire the skill and experience in using computers. Consequently most students attained high marks in their tests and on-line exercises given to them.

Allowing students to take charge of their learning has kept them motivated (Hidi & Harackiewicz, 2000). However future studies could explore the students' reliance on using online business to learn all the time.

Online business games which are interactive and can illustrate a concept through attractive animation, sound, and demonstration, allowed students to progress at their own pace and work individually or solve problems. Online business games provide immediate feedback, letting students know whether their answer is correct. If the answer is not correct, the program shows students how to correctly answer the question. Online business games offers a different type of activity and a change of pace for the students.

Online business games improves instruction given to students with learning difficulties because students receive immediate feedback and will not continue to practice the wrong skills. Many online business games can move through instruction at the student's pace and keep track of the student's errors and progress. Online business games can capture the students' attention because the programs are interactive and engage the students' spirit of competitiveness to increase their marks.

Also online business games, moves at the students' pace and usually does not move ahead until they have mastered the skill. Online business games can provide differentiated lessons to challenge students who are at risk, average, or gifted. Catering to the different learning abilities of students can boost their morale and this will certainly improve their motivation.

The effect of cost is not considered. Levin, Dester and Meister (1986) had suggested that the cost of online business games was high in relation to the level of its effectiveness in motivating students. However through the online business games activities, it was shown that the results of the students from the use of online business games is high.

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