Original Article

Effect of blind artist game in pathology: A comparative study

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Abstract

Introduction: Pathology is that the science of the causes and effects of diseases, particularly the branch of drugs that deals with the laboratory examination of samples of the body tissue for diagnostic or rhetorical functions. Research suggests that students have knowledge regarding pathology in their identification of drawings and alternative artifacts.

Materials and Methods: This study consists of 100 controls – 50 population exposed to blind artist game and 50 population without exposed to blind artist game in pathology. The data will be collected, and the resultswill be analyzed statistically.

Results: This study shows that there is a high significant difference between groups with blind artist game and without blind artist game with $P < 0.05$.

Conclusion: Our study showed that the Blind Artist Game is an effective game in learning pathology.

Keywords: Artist intention, iconicity, symbolic representation

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INTRODUCTION

Pathology has been defined as "that the branch of medicine which treats of the essential nature of disease." The word "pathology" comes from the Greek words "pathos" meaning "disease" and "logos" meaning "a treatise" = a treatise of disease.[1]

A game is "a physical or mental contest that has specific rules, with the aim to amuse or reward the gamers" provides the following definition of a game or computer game: "A game is an artificially constructed, competitive activity with a specific goal, a set of rules and constraints that is located in a specific context."[2]

Games are designed to generate a positive effect in players and are most successful and engaging when they facilitate the flow experience.[3] A game is a physical or mental contest that has specific rules, with the aim to amuse or reward the gamers art game is defined in two ways.

A game is an artificially constructed, competitive activity with a specific goal, a set of rules and constraints that is located in a specific context.[4]

1. A defined way to win or experience success in a mental challenge
2. Passage through a series of levels (that may or may not be hierarchical)
3. A central character or icon that represents the player.[5]

Some authors described games by listing their structural components, such as dynamic visuals, interaction, rules, and goals.[4] Others stated that the essential elements of a game are the task, the player's role, the multiple paths to the goal, and the degree of player control.[6] Games that

Access this article online	
Quick Response Code:	**Website:** www.ijcpc.org
	DOI: 10.4103/ijcpc.ijcpc_6_19

How to cite this article: Fastina Mary DA. Effect of blind artist game in pathology: A comparative study. Int J Clinicopathol Correl 2019;3:22-5.

come into contact with the educational establishment often become "teacherized" by the need to embed, add, or refer to educational content linked to performance-related outcomes within the curriculum.[7] Each of the four main categories has this element of teacherization within them, although the reversioned commercial game has the greatest possibility for producing a truly game-like learning experience.[8]

In recent years, many researchers have investigated the effectiveness of digital technology in the promotion of learning, the process of which is often conducted using games.[9] The incorporation of games into education is often more effective than traditional teaching methods in enhancing learning motivation, active participation, and concentration among students. Furthermore, games can enhance the social skills of students as well as improve their skills in understanding and solving problems.[10,11]

Through game-based learning (GBL), participants learn more actively, and with greater interest, enabling the learned content to leave a deeper impression than would be possible using conventional methods.[12]

In a classroom situation, teacher–student interactions and student–student interactions exert a profound impact on learning. Unlike interactions in digital games via computers, face-to-face interaction exposes people to human expressions, physical action, and verbal tones.[13] Thus, using educational card games as a medium for GBL could enhance the direct interpersonal interaction between teachers and students as well as among students to a degree unmatched by the sound and audio effects of digital games.[14] This study designed a science lesson using an educational card game. By handling the cards and moving the character pieces themselves and competing or cooperating with peers through direct verbal communication, students can interact with one another and learn happily from within.[15]

GBL refers to use of computer games that possess educational value or different kind of software applications that use games; for learning and education purposes.[16] Although there is widespread games utilization in training and learning, there is still a lack of empirical studies that assess their effectiveness for learning and training. Highlight that there is an insufficient research that looks into the effectiveness of games in learning.[16] Most of the claims on the effectiveness are based on the teacher's judgment and anecdotal and personal encounters.[17] Although many researchers proved that using games increases motivation and interest, however, there is still missing evidence on the effectiveness of games as learning tools. A learner performance refers to the increase of knowledge and capability of learner as a result of learning activity.[18]

Student engagement is an important factor for student motivation during their learning process. The more students are motivated to learn, the more likely it is that they will be successful in their efforts. Many factors influence student motivation. These include teacher motivation, pedagogical strategies, availability of learning tools, technology support, and good learning environment. However, to sustain such motivation gained by the students, it is important that the school environment, in which their learning process evolves be in line with that of the students' expectation.[19]

MATERIALS AND METHODS

Sample size: 150 students.
- Group 1:75 students – without blind artist game
- Group 2:75 students – with blind artist game.

Inclusion criteria
Random group of students who have not learned those topics earlier.

Exclusion criteria
Students who have previously learned those topics. Furthermore, people who do not have pathology as their main subject were omitted.
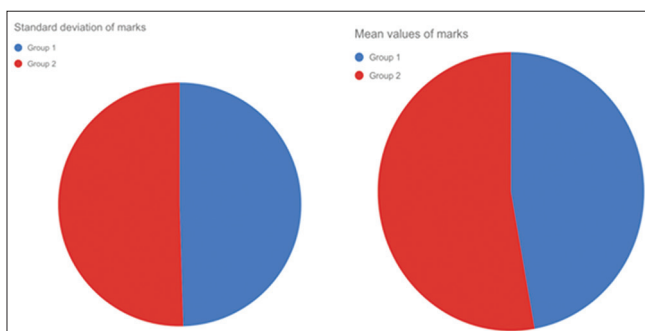

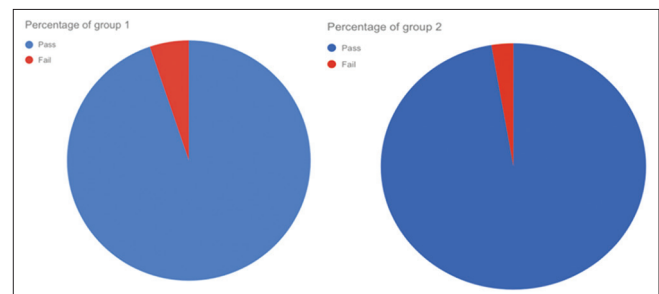**Figure 1:** Mean and standard deviation of the marks obtained by the Groups

Figure 2: Pass and Fail percentage of the Groups

Table 1: Mean and Standard Deviation of the marks obtained by the groups

Groups	SD	Mean value
Group 1	0.636	3.3
Group 2	0.648	3.7

SD: Standard deviation

Table 2: Pass and Fail percentage of the groups

Groups	Pass percentage	Fail percentage
Group 1	94.8	5.2
Group 2	97.3	2.7

This study has been taken on topic of necrosis. The data will be collected, and the results will be analyzed statistically.

RESULTS

The main focus of this research work is the evaluation of the effectiveness of GBL in higher education. However, the scope of this paper is limited to a discussion of the proposed research framework, the methodology, and some analysis and discussion of the data collected during data collection activity. The aim of this paper is to answer two questions. First, whether learner's background has a correlation with learner motivation to learn and learner performances. Second, whether GBL environment has a correlation with learner motivation and learner performance. This study shows that there is a huge difference in factors of learning between two different groups accordingly, based on the existing literature, we divided the game engagement factors to learner-dependent and game-dependent.

DISCUSSION

The main aim of this study is to analyze whether the blind artist game has impact on understanding pathology. The main focus of this research work is the evaluation of the effectiveness of GBL in higher education. However, the scope of this paper is limited to a discussion of the proposed research framework, the methodology, and some analysis and discussion of the data collected during data collection activity. The aim of this paper is to answer two questions. First, whether learner's background has a correlation with learner motivation to learn and learner performances. Second, whether GBL environment has a correlation with learner motivation and learner performance. This study shows that there is huge difference in factors of learning between two different groups. As the test has been conducted between two groups, that is, Group 1 which is a learner-dependent group has pass percentage as 94.8% and 5.2% were failed in the test and Group 2 which is game-dependent group has pass percentage as 97.3% and 2.7% is the fail percentage. This is showed in the Table 2

and Figure 2. The standard deviation of Group 1 which is a learner dependent group is about 0.636 and the mean value is 3.3 and, the standard deviation for Group 2 which is game-dependent group is about 0.648 and the mean value is about 3.7. This is showed in the Table 1 and Figure 1. Hence, this study suggests that the pass percentage of the game-dependent group has greater percentage when we compare with learner-dependent group. These studies focused primarily on the achievements, motivation, and attitude of students involved in learning pathology.

CONCLUSION

This study shows that there is a high significant difference between groups with blind artist game and without blind artist game with $P < 0.05$. It shows that learner's background influenced learner's motivation to learn and thus affected their performance. Although many researchers proved that using games increases motivation and interest, however, there is still missing evidence on the effectiveness of games as learning tools.

Conflicts of interest
There are no conflicts of interest.

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