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Animated Self-Learning Material and Student Performance on Exams: A Study

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Abstract:

The study's goal is to examine the links between two variables, such as test performance and 3D animated YouTube video learning material. Undergraduate students from private colleges were chosen as main sources to better understand the correlation between the two variables. The use of educationally linked YouTube animated video learning resources in two separate practical topics, namely 3D modelling and 3D texturing, was connected with two semester marks of animation undergraduate students. To prevent biased information and biased findings, a simple random selection procedure was adopted. There was a total of fifty samples selected from the universe. It was chosen from among three hundreds of samples. The learners were chosen based on their previous semester grades in order to create commonality among them. The information was taken from medium-level students, i.e., those who scored 50 to 60. The simple percentage analysis was used find the relationship of the two components. To test the association, two semester grades were associated, and the difference was determined by comparing the results. The study's findings revealed that there was a favourable association between the two variables. Students who used self-learning YouTube videos to study animation practical courses fared well in their respective semesters' practical exams.

Key words: Exam performance, self-learning material, private universities, average level learners

Introduction

The use of animated self-learning material can have a positive impact on student performance. Studies have shown that animated videos help students learn better and retain knowledge about complex subjects. One of the benefits of animated self-paced content is that abstract or difficult ideas can be presented visually, making it easier for students to absorb and retain them. Animation can make your subject matter more engaging and engaging, encouraging your students to learn better and perform better. In addition, students have access to animated self-study materials at their own pace and pace, so they can review and correct the material as needed. This is especially useful for students who struggle with certain ideas or who need more practice to fully study the content. However, it is important to note that the effectiveness of animated self-study content can vary depending on aspects such as the quality of the material, the learning style of the particular student, and the level of engagement and feedback the material provides. Overall, animated self-study materials can be a useful tool for improving student performance, especially in areas where visual aids and interactive learning help students understand and retain complex concepts.

Review of Literature

The benefits of animated self-study materials for learners are discussed in the relevant literature. A growing body of research shows the benefits of animated self-study content for learners. Here are some reviews of the literature on this subject. According to a systematic

review published in the Journal of Educational Psychology, animated self-study resources can enhance student learning by providing an engaging and dynamic learning experience. According to reviews, animated self-study materials motivate students, spark interest in the subject matter, and help students retain information more effectively. A meta-analysis published in the Journal of Educational Psychology found that using animated self-study materials improved student learning outcomes. A meta-analysis examined the results of 57 studies on the use of animated films in education and found that students who used animated self-study materials performed better on tests and remembered information more effectively than those who did not. I understand. A study of the literature published in the Journal of Educational Technology & Society highlights several benefits of using animated self-study materials in teaching, including improved student engagement, improved learning outcomes, and greater accessibility to learning resources. Some benefits have been demonstrated. Another study published in the Journal of Educational Multimedia and Hypermedia found that using animated multimedia YouTube videos to teach subjects such as math, science, and language acquisition was beneficial. The evaluation highlighted the potential of animated films to visually present abstract or complex subjects, encourage active learning in students, and encourage independent learning. A study published in the Journal of Interactive Learning Research investigated the impact of animated self-study materials on student motivation and learning outcomes in a college-level computer programming course. The study found that students who used animated self-study materials were more motivated to learn and performed better on exams than those who did not.

A study published in the Journal of Educational Multimedia and Hypermedia investigated the impact of 3D virtual reality on student learning outcomes in a chemistry course. Studies have shown that students who use 3D virtual reality achieve significantly better learning outcomes than those who do not. Another study, published in the Journal of Chemical Education, looked at her use of 3D molecular models in a chemistry class and found that students who used the models performed significantly better than those who did not. I understand. A study published in the Journal of Educational Psychology examined the use of 3D animation in physics lessons and found that students who used animation had significantly better learning outcomes and improved content retention than those who did not. I have also noticed a significant improvement in strength. A study published in the Journal of Interactive Learning Research investigated the use of 3D educational games in history lessons and found that it improved student engagement and learning outcomes. A meta-analysis published in the Journal of Educational Psychology examined the results of 25 studies on the use of 3D graphics in science education and found that the use of 3D graphics improved student learning outcomes and content retention. Collectively, these studies demonstrate that 3D materials can be useful tools to improve student engagement, motivation, and learning outcomes in a variety of fields, including chemistry, physics, history, and science education in general. is showing. 3D materials can provide a dynamic and engaging learning experience while facilitating deep her learning.

Research Methodology

To better understand this relationship, private university students were chosen as the primary source of information. YouTube animated video learning materials usage to learn 3D modelling and 3D texturing subjects and semester exam performance was correlated among the undergraduate learners. A basic random selection technique was used to avoid biased information and conclusions. A total of 50 samples were selected from space from hundreds of samples. To establish common ground among students, they were selected based on their

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performance in the previous semester. Data were collected from intermediate level students. The selected students' score level was between 50 and 60.

Total number of participants

Table 1

S. No	Male	Female	Total respondents
1	39	11	50

Table 2

S. No	Urban	Rural	Village
1	30	26	4

Table 3
Opinion about 3D tutorials – usefulness

S. No	Tutorials-self learning	No. of Respondents	Percentage
1	Strongly agree	36	72
2	Agree	9	18
3	Neutral	1	2
4	Disagree	2	4
5	Strongly disagree	2	4

Table 3: This table shows the level of (3d animation degree learners') opinion on usefulness of 3D tutorials

Table 4
Opinion about the satisfaction

S. No	Tutorials-self learning	No. of Respondents	Percentage
1	Strongly agree	43	86
2	Agree	3	6
3	Neutral	0	0
4	Disagree	2	4
5	Strongly disagree	2	4
	Total	50	100

Table 4: This table shows the level of (3d animation degree learners') opinion on satisfaction of 3D tutorials

Table 5
Frequency of usage

S. No	Tutorials-self learning	No. of Respondents	Percentage
1	4 hours	20	40
2	3 hours	20	40
3	2 hours	8	16
4	1 hour	2	4
5	Not using	-	0
	Total	50	100

Table 5: This table shows the level of (3d animation degree learners') usage of 3D tutorials

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Findings and suggestions

General findings:

1. All the students were in between the age groups of 20 to 24.
2. All the students' marks were in between 50 to 60 in previous exams.
3. 78 % of the students belongs to male category
4. 22 % of the students belongs to female category
5. All the students were selected from three 'A' grade private universities of Tamil Nadu

Specific findings:

1. The YouTube tutorial users had better performance in their 3d modelling and 3d texturing practical subjects.
2. The opinion of the learners favours the use of YouTube tutorials on learning 3d subjects.
3. Learners used different video materials and sources for their learning practical subjects.
4. Self-learners in 3d practical subjects performed well in their exams.

Limitations:

This study was conducted among the three 'A' grade private university B.Sc. animation degree students. The exam performance might vary because of the external factors. Many students used various other sources and video tutorials to get the practical knowledge. Very few colleges in Tamil Nadu had course related to animation. So it was difficult generalise the concept.

Conclusions

The study's findings demonstrated a positive relationship between the two factors. Students who studied animation practical courses using self-learning YouTube videos performed well in their respective semesters' practical tests. The research results shows that there is a positive correlation between the use of animated learning materials and learning performance among the undergraduate animation degree course learners. Furthermore, the learner's gave a very positive response regarding the use of 3d learning materials. The Animated learning materials created a dynamic and engaging learning experience that promotes deep learning and improves memory, leading to better learning outcomes and higher levels of engagement.

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