Original Article

Use of VideoScribe application in teaching: A comparative study

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Abstract

Aim: The aim of the study is to know the effect of VideoScribe application in teaching and learning of pathology.

Objective: The main objective is to compare the conventional textbook learning with VideoScribe flipped classes.

Materials and Methods: A video is made using the VideoScribe application. Thirty students were asked to prepare on the same topic and were asked to take up the test. The video was then played, and the students were asked to take up test again. The answers were evaluated and compared.

Results and Discussion: The results clearly show that there is increased percentage of marks when the flipped class is made available. This shows that flipped class are helpful in the improvement of knowledge in comparison with conventional textbook methods. This study is designed in a way to evaluate the effectiveness of audiovisual aids in learning process.

Conclusion: Audiovisual aids are important in the education system. These encourage the teaching-learning process and make it easier to understand the concepts. Hence, there is no doubt that these applications and software have greater impact.

Keywords: Applications, audiovisual aids, flipped classes

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INTRODUCTION

Teachers have a duty to guide and direct students to reach competencies, but this process is not going well as per the expectations due to lack of concentration and very low percent of students capable of absorbing all those taught during lectures.[1] Video learning is an approach that delivers the information and contents in a good pace and that can be helpful in learning at any place regardless of environmental conditions and helps in competing the classroom distractions and promotes activity-based learning.[2] Pathology is a subject where there is a need to know about different terminologies and conditions which are volatile. Sometimes, this interrupts the process of learning. To overcome this problem, efforts must be taken. One of the efforts may be the use of audiovisual-flipped classes on each topic in pathology using applications such as VideoScribe.[3]

As the world is developing day by day, there is a need for educators to take a step to utilize the technologies. These include the use of graphic-based learning, interactive slides, activity-based learning, and documentation of practical works and seminars.[4] The use of technology started by the late 1900s in many parts of the world. They help in precise gaining of knowledge. In particular, students from different

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regions can understand the concepts in a common way irrespective of communication barriers.[5] Every university student has a smartphone with him. These can be used to access information about subjects and create their own way of representing pathways, cycles, etc.[6]

Some applications such as Web 2.0, VideosScribe, and Brushes Redux are helpful in the understanding of various concepts of pathology.[7] It is difficult for students to take up the books from clinic to clinic, but they can easily refer to their iPhone or iPad as a small reference guide.[8] Over the years, pathology advanced a lot in the diagnostic area, with the development of histological, molecular, and genetic techniques.[9] To cope up with such advancements, flipped class modules were chosen. In this, the theoretical content is made ready as flipped class, and the students were engaged in practical activities related to the prepared lecture video in the form of concept mapping, quiz, etc. These are mainly applied in concepts such as inflammation, tissue damage and repair, and neoplasia.[10]

MATERIALS AND METHODS

A set of 30 students were selected by random selection method. They were asked to study about necrosis and were asked to take up a test. A video on necrosis was made using the help of VideoScribe application. The video was based on the points taken from textbooks and pictures where added. The video was shown to the participants, and they were asked to take up another test. The papers were evaluated and statistically analyzed.

RESULTS

The marks obtained by the two groups are charted in Figure 1. The paired *t*-test values are obtained by statistical means [Table 1]. The *P* value of paired *t*-test is 0.0001.

Table 1: Statistical analysis

Group	Group 1	Group 2
Mean	2.67	7.33
SD	1.24	2.40
SEM	0.23	0.44
N	30	30

SD: Standard deviation, SEM: Standard error of mean

By conventional criteria, this difference is considered to be extremely statistically significant.

DISCUSSION

It has been evident that the use of VideoScribe application has helped in increasing the performance of students. Another observation made was that it had helped the students in learning histopathology.[11] The process of creating a concept map help to achieve the contextualization and decontextualization of knowledge.[12] In today's educational environment, technology is an integral tool in achieving quality education.[13] The technology chosen by teachers helps students to stay engaged and develop interest in learning.[14] Topics that are taught previously in the class are learned by students through this flipped classes.[15]

The expectations for the application of multimedia in basic, advanced, and further education and training have peaked.[16] The goal of flipped classroom is the shift from passive learning to accelerated advanced learning.[17] Therefore, it is important for medical professors to focus on interactive learning.[18] The integrated combination of teaching methods and modern technologies is helpful in understanding the concepts of pathology.[19] Flipped classes facilitate critical thinking which promotes active learning.[20]

Technology is making this learning possible, and material-based learning helps in developing skills which cannot be taught by conventional lecture methods.[21] Students and researchers appreciated the flipped class as it makes learning easier and effective.[22] The videos with lectures focus on improving the ability of students to understand the subjects and elevate their interest toward the subject.[23]

CONCLUSION

Innovative approach using technologies helped in shifting from blackboards to digital screens which serve as a promising approach for development of education. Students preferred videos made by their lecturers. This suggests that source of learning has a crucial effect. The implementation of flipped classes has significantly increased

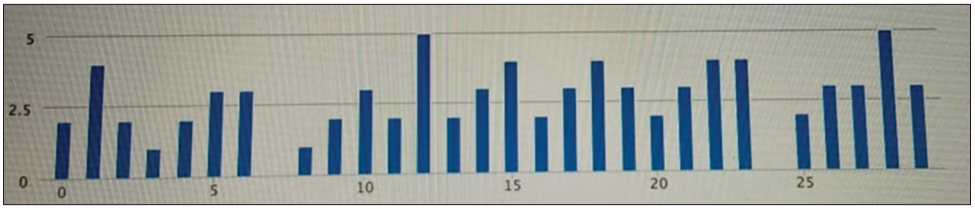

Figure 1: Representation of marks before and after the use of VideoScribe application

the attendance, behavior, and grades and has satisfactorily reduced classroom interruptions and distractions. Thus, usage of flipped classes helps in development of interest toward pathology and helps the students engage in active learning.

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Conflicts of interest

There are no conflicts of interest.

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