

# Learning Through Videos Vs Text: Assessing The Effectiveness Of Video: Faculty Perspective

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## Introduction

Nowadays students learn differently than those in the past, resulting in a different classroom environment. Video as a tool for teaching medical students was the topic of this study, which was designed to provide and add some clarity to knowledge on the subject.

## Materials and Methods:

An analytic experimental intervention design study, take place in March 2022 (1 month). During the online CHPE 6 months course, After lectures on different teaching strategies. Send the movie link. After watching a movie, participants had to fill out a questionnaire.

## Results:

In the CHPE program, 109 out of 118 student responses were recorded (response rate - 92%), age range 25-55 years; males dominate females, minimum qualification is MBBS, and high degrees are Ph.D. or FCPS. 59.9% of students said that the time they spent watching the movie was produced, while 7.4% considered it unproductive. According to the survey, 97.6% of students think the assignment is interesting, while 2.4% believe it was not. In addition, 31.2% of people watched this video in one go, and 33.9% watched it three or more times. Lastly, they were asked to identify a chapter from a textbook to which this film can be compared; 78% identified it as problem-based learning, 10% as task-based learning, 9% as small-group discussion, and one percent as a critical thinking scenario.

## Conclusion:

Selected videos are a more effective and efficient teaching-learning tool for long memorization and critical thinking in the training of medical students.

**Keywords:**

Medical Education, Teaching & Learning Strategies, Learning Tools, Video-based learning, Directed Learning Strategy

**Introduction**

In this time and age, we live in a media-driven and technology-friendly world, with rapid advancements in technological tools. Because of these rapidly changing specialized tools, teaching has become a more complex profession. The learning approach of today's students is vastly different from their previous era, resulting in a change in the classroom environment. (1) For example, various forms of technology have been integrated into the teaching methodology, like simulations, expanded use of videos, online lectures, and new teaching and learning tools.

Many digital and textual opportunities are available for teachers and trainees today to acquire knowledge. (2) However, it is unclear which medium is most effective for which situation. Many training tools are used in the field of education, ranging from audio, videos, and written papers, to many online tools. By combining motion with audio, visual, and textual information, video is seen as a rich and powerful medium for presenting information in a realistic way. (3,4) Video-based learning provides students with a useful tutoring tool that allows them to pause the video when needed, learn at their own pace, and access information in their preferred environment.(5)

As a result of different recent studies, virtual activities have been associated with help; for instance, medical students have benefited from such activities to develop specific skills and minimize burnout risk during clinical practice and medical education. (4) The arts, especially the visual arts, are also included among the activities useful for skill development. Many

scientific papers have indicated that can be guided observance of visual art to cultivate and teach qualities associated with empathy, for example, in medical and health education. (2) Moreover, visual arts can help develop clinical skills, such as observing, analyzing, and communicating visual information. (6) Metaphorical movies or video clips allow students to focus and identify recognizable shapes and contextual information. (7) At the same time, abstract art encourages the development of pattern recognition skills and greater tolerance of ambiguity with the freedom to follow one's imagination and emotions. (5) An important skill is to relate critical thinking and keep an open mind, self-awareness, and consideration and appreciation of different and diverse points of view that make each condition and patient experience unique.(8) This study aimed to provide and add up clarity on the significance and efficiency of video as a learning media and tool for the training of medical students.

**METHODOLOGY:**

For this study, an experimental intervention design was constructed. To measure and analyze the efficiency of learning through video, specifically focusing on the learning outcomes of factual and procedural knowledge and students' interest. A study was done for one month (March 2022) duration. The participants had to watch a movie within a 20-day time frame and then fill in the related questionnaire. In CMH Lahore Medical College & Institute of dentistry (CMH LMC & IOD). Ethical approval/permission was obtained from CMH LMC & IOD Research and Ethics Board. Participation in this study was

voluntary. 118 students were enrolled in the Certificate in health professions education (CHPE). The participants vary in background, age, gender, and qualifications.

### Procedure:

Through the online CHPE course from CMH Lahore medical college & Institute of dentistry, we take 2 hours of interactive lectures on different teaching strategies. After the class, we sent the links to one selected movie and an online questionnaire. Cognitive presence refers to exchanging ideas and being able to apply what is learned in the course. All CHPE course Students who fill out the questionnaire completely were included.

In semi-structured self-designed questionnaire was used, consisting of the following two parts:

Part 1: Sociodemographic characteristics like gender, and course status, as mentioned in table 1

Part 2: The list of close-ended questions with five options as mentioned in table 2

### Result

The total number of enrolled students in the CHPE Course was 118. Responses recorded were 109. So, the response rate was 92%. Our first

question was about the type of time when you watched the movie. 92.6% of students declare it quality or productive time, while only 7.4% think it is unproductive, dead, or leisure time. The second question was about which type of time you extracted to watch the movie; 59.9% called it quality/productive time, and 40.1% called it unproductive or dead time. Our next question was, "in which quadrant have you placed this assignment" 97.6% of students think it is interesting and easy to understand only 2.4% of students feel is a non-productive and poor understanding assignment.

Our next question was, "how did you watch this movie" 31.2% watched this movie in one go, 34.9% watched it in two sessions, and 33.9% watched this assignment-based movie in three or more sessions. Our last question was open-ended "Identify the chapter in your book (ABC of Teaching & Learning), To which you can relate this movie" 78% identified it as problem-based learning (PBL), 10.2% observed it as Task-based learning (TBL), 9.7% related it as small group discussion (SGD) and remaining 1.1% relate it as the scenario of Critical thinking (CT), Decision making communicated the point of view it will convince.

Age (N=118)	47.45% (<35 years)	35.59% (35-50 years)	16.94% (>50 years)
Gender (N=118)	58.47% (Male)	41.52% (Female)	-
Qualification (N=118)	31.35% (Graduate)	40.67% (MPhil or Masters)	27.96% (Ph.D. or FCPS)
Status (N=118)	35.59% (Demonstrator or Registrar)	46.61% (Assistant, Associated Professor)	17.79% (HODs, Professors)

Table 1: Sociodemographic characteristics of Participants

S/No	Questions	Response % (n=109)
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1	Where do you place the type of time when you watched the movie?	Productive time 92.6%	Productive time 7.4%	-	-
2	Which type of time did you extract to watch this movie?	Quality time 59.9%	Unproductive time 40.1%	-	-
3	In which Quadrant have you placed this assignment?	Intersection/easy to understand 97.6%	Non-productive/poor understanding 2.4%	-	-
4	How did you watch this movie?	In one go 31.2%	Two or more sessions 68.8%	-	-
5	Identify the chapter in your book (ABC of Medical Education), To which you can relate this movie.	Problem-based learning (PBL) 78%	Task-based learning (TBL) 10.2%	Small group discussion (SGD) 9.7%	Critical thinking (CT) 1.1%

Table 2: List of close-ended questions

## DISCUSSION

The core knowledge of any discipline is authoritatively represented through textbooks (2). Professors have always encouraged assigned course textbooks, notes, and research articles to assist students in preparing for different topics and activities in a classroom (3). These have been used as study tools for years and have helped me understand lecture slides, prepare notes, and find various definitions. (10)

As our CHPE course was already online, engaging the students to understand the complex concept was difficult. But from the past few years, studies have shown that it is high time to replace textbooks with video-based learning because when we read some text material, only our eyes perceive the message and our brain can understand, but in the case of the video, our eye and ear both are involved in the learning process, and brain compiles it more comprehensively.(11)

It will produce long-term memory and deep understanding(4)

This is further exacerbated by the diminishing trend in the reading of printed material, which began in the 1980s and has gained popularity since then. Recent literature has deemed digital and social media as the culprit for this situation. (5) Furthermore, students have reduced school-related expenses due to rising prices and inflation. The reason is that 65% of students refrain from purchasing textbooks even though they are required to do so. (6) Our study supports this; our results show that many students watch the movie in one go and find it an interesting way.

In recent years research shows that the video book is being used as a new tool to deliver course content and eventually replace the traditional textbook(9,13). Recent studies have found videos to be superior as a teaching tool compared to traditional books, as students learn better through visual and auditory senses rather than just words alone.(2,7,8) In Mayer's Cognitive Theory of

Multimedia Learning(9), the author helps to explain the three principles. Two channels are used for processing visual and auditory information based on the first principle. After a saturation level has been reached, each track has a limited capacity for processing information at a time. And the third principle states that active processing must occur for any learning to occur every time.(13,17) Thus, to increase cognitive capacity, information should be a mixture of visual and auditory add, rather than a single (auditory or visual) mode but making sure to avoid any cognitive overload. (10)

For this recent era generation, the video book is relevant, comfortable, and engaging to them, and they have acclimatized themselves to using video resources when looking for any information or seeking out new knowledge. (8) Since Generation Z and Millennials have grown up with YouTube channels, Khan Academy, websites, and other on-demand services, video learning is becoming increasingly popular.(19) They have easy access to all these resources, allowing them to learn with less effort and master a new skill when and as they please. They prefer to watch YouTube videos and tutorials to acquire knowledge before doing a task or applying information. (11) One main reason is the allowance of greater tutor control on learners, which allows students to start, stop and replay the video or audio track as desired, allowing them to learn at their own pace around the clock.(21) Many authors support our results that this is reflected in students' positive attitudes toward video, which they find enjoyable, interesting, and stimulating. (5,12). Student engagement can be achieved when videos allow the faculty to provide context to the lesson. (10)

### **Conclusion:**

Selected videos are a more effective and efficient teaching-learning tool for long term memorization and critical thinking in the training

of medical students. After considering the responses of participants that they had a more productive time watching the movie and that it helped their understanding, learning We can safely conclude that by making videos and online teaching software that are readily available online as part of the teaching strategies, we can gain our objective of imparting new knowledge and help people maintain the memory longer with details more effectively.

**Suggestion:** design a program with different learning objectives and achieve it all through watching videos

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### **Conflict of Interest**

No conflict of interest

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