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IMPACTS OF WATCHING VIDEOS ON ACADEMIC PERFORMANCE AT UNIVERSITY LEVEL

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Abstract:
The study sought to analyse the effects of educational videos on university students' academic activities and performance. This research is useful for educators and video makers who utilize and/ or make free or commercial videos for educational purposes. The research was based on the quantitative method and data had been collected through a sample survey. The semi-structured questionnaire was utilized and 342 responses were retrieved. The study revealed that watching educational videos affected the academic activities and performance of the respondents positively. The majority of the respondents used mobile phones and laptops to watch videos. The study further confirmed that most of the respondents preferred short length videos and animated educational videos.

Keywords: videos, academic performance, higher education, university, Bangladesh

1. Introduction

Educational videos are now widely available thanks to cheap internet and video content creators. In the 1980s, videos started to enter the teaching world. Development of information and communication technology (ICT) has made a good resource with huge possibilities (Nagy & Bernschütz, 2015). Moreover, with the rapid advancement of computer and software technology, the opportunity to produce, change and share videos have increased in university level (Kay and Kletskin, 2012). Many researchers have already confirmed the effectiveness of video in education, focusing its usefulness as a training instrument (Rajadell & Garriga-Garzón, 2017). People can find topics ranging from mathematics to politics. Video learning is changing the world education system (Vander Ark, 2012).

In the last ten years, due to the invention of social media, people can easily share feelings, information, ideas, images, and videos and it has changed the online world

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rapidly (Oberst, 2010). YouTube, established in 2005, is the most popular internet video sharing website (Cheng, Dale, & Liu, 2008). In recent years, massive open online courses also known as MOOCs (Coursera, EdX, Udacity, Udemy) have become eminent trends in higher education. Video-based instructional contents are freely available in these online educational platforms (Baturay, 2015). For online education, videos are now considered as a widely-used type of resource (Guo, Kim, & Rubin, 2014). Therefore, nowadays, students are using video learning websites at an increased rate.

In the early 1990s, personal computers (PC) became popular in Bangladesh because of its user-friendliness and affordability. In 1998, the use of computers and software increased both in public and private sectors in Bangladesh because there was an exemption of taxes of computers and ICT related accessories and price reductions in the global market (Islam & Selim, 2006). The government of Bangladesh has recently taken ICT friendly initiative called Digital Bangladesh to make the government service easily available to the doorsteps of general people (Khan, Hossain, Hasan, & Clement, 2012). The government has launched several initiatives (for example, Multimedia Classroom system by a2i Bangladesh) for making online learning easier. The government tries to control the price of internet and mobile, computer devices. Therefore, it is now easier for students to have and use technology for their education. However, in this study, the term video includes the recording, copying, or broadcasting of moving visual images.

2. Statement of the Problem

Educational institutions have made continuing calls for change and innovation in tertiary education, where information and knowledge have been communicated mainly through conventional lectures despite regular quality concerns (Arum et al., 2012). The concept of education and learning has recently changed from old aged instructor-centered approach to learner-centered education modes. With this change, teachers can act as knowledge givers, as well as learning promoters who motivate learners to build knowledge (Hwang, Lai, & Wang, 2015). The rapid advancement of information technology, telecommunications and media are changing the process of transferring information. These technologies have a big influence on the way people select what types of knowledge they are interested in and where to find it (Nagy & Bernschütz, 2015).

Using videos for learning were instrumental in professors' teaching productiveness and video brought the maximum level of enjoyment (Tang & Austin, 2009). Furthermore, YouTube is the 2nd most visited website in the world, just behind Google (Alexa, 2019). YouTube, a valuable instructional resource and a teaching supplement, can motivate and engage students and assist their digital learning. As a free teaching and learning resource, YouTube is a significant consideration for educational budgets (Burke & Snyder, 2008).

However, parents and guardians are concerned that students spend too much time on mobiles and computers and don't have much time for studying (Owusu-

Acheaw & Larson, 2015). Due to the increased use of video learning, academicians and practitioners are questioning whether students' activities and performance will positively be affected by online and offline videos. There are a number of researches on the influence of YouTube videos on the education sector. But there are shortages of research aimed at investigating university students' use of videos and their effects on academic performance in a developing country like Bangladesh. This research is a practical contribution to video learning literature.

3. Literature Review

Information and communication technologies (ICTs) have become an indispensable part of the education system. The system allows incorporating digital technology in a variety of teaching and learning process in higher education (Johnson, Becker, Estrada, & Freeman, 2014). Teaching and learning are changing because of information technology which is the change agent and provided rich sources of information for faculty and students in academic institutions. Many educational institutions around the world have utilized different information and communication technologies in education, e.g., multimedia classroom (Schmid, 2008). Some scholars and professors also encourage the implementation of updated computer technology, online learning, and social media in classrooms (Tang & Austin, 2009).

The uses of modern multimedia equipment and advances in displaying videos on a computer monitor have increased due to the decrease price and recent improvements in multimedia computing and digital video instruments. These advantages allow instructors and students to record their own experiential videos they themselves performed (Escalada & Zollman, 1997).

Videos engage students and generate a higher amusement value than other technologies (Caudron, 1997; Salomon, 1984). People like videos and consider videos as having more enjoyment than other technologies (Fulk et al., 1995). Videos can have a powerful impact on the human mind and senses. Videos can be downloaded from the internet or bought CDs from shops so people can watch videos over and over again (Berk, 2009). Videos can be replayed and reused so many times as well as mashed-up with other content after its creation (Bonk, 2011).

Online videos have the advantages of accessibility, versatility, breadth of content and up-to-date materials which help teachers and students to form and contribute to course content and improve student engagement in classroom activities. In higher education teaching and learning, people are increasingly using online videos. For faculty and students, YouTube has become one of the leading examples of video-sharing resources that can empower students in their education, engaging classroom discussion, and achieve learning goals effectively inside as well as outside of the classroom (Sherer & Shea, 2011). Renowned universities in the world are using their own YouTube channels with different subject areas (Orús et al., 2016). Khan Academy, a non-profit educational organization, has videos of different subjects that enable

learners to learn online according to their own pace and review unknown content (Khan, 2015).

Mobile, a valuable form of technology, has become common among the younger generations. Videos using cell phones are good instruments that teach students on proper skills and improve learning outcomes. It can also lead to a significantly higher level of learning motivation, confidence in learning a skill and class satisfaction(Lee et al., 2016).

Online video resources and materials can boost a traditional course (Bonk, 2011). The research findings by Tan & Pearce (2011) indicated that the use of video in education was an effective way to engage students and support their understanding. The benefits would be providing different ideas and opinions on subjects, several delivery mechanisms, and getting regular examples to explain points. Furthermore, the question numbers were decreased profoundly due to the growing capacity of self-learning among students (Bravo, Amante, Simo, Enache, & Fernandez, 2011).

To use video as a learning tool, Brame (2016) focused on the following principles to be considered by an instructor. • Keeping videos short and targeting learning goals. • conveying right parts of an illustration. • Focus on important concepts and idea. • Utilize an enthusiastic and conversational style to increase engagement. • Embed videos in a context of active learning by interactive elements, using guiding questions, or associated homework assignments.

4. Objectives of the Study

The general objective of the study was to find out the impact of educational videos on academic performance among university going students. The specific objectives of the study were as follows:

1) To identify what types of benefits students got from watching educational videos.
2) What were the drawbacks of watching the videos?
3) To know the most preferred style and length of videos.
4) What could be done to improve the videos for the betterment of students?

5. Methodology

The research was based on the quantitative method and data had been collected through a sample survey using a semi-structured questionnaire. A social survey is an objective approach for studying the social processes within a well-defined area at a given time by means of a questionnaire, an interview schedule, and information statistically (Kumekpor, 2002). Using Google Forms, the questionnaire was designed by the researcher to collect information from a sample of undergraduate students of Daffodil International University (DIU) in 2018. DIU is one of the top ranking private universities in Bangladesh. After the distribution of the questionnaire, 342 responses were collected. Purposive sampling technique was adopted to sample the respondents

as the intention of the study was to find out the impact of video learning. After obtaining data, the results were analyzed with the MS Excel.

6. Discussion of Findings

6.1 Advantages of Watching Educational Videos

It was found in this research that 90.1% of respondents liked the ICT favoured multimedia classroom system in their classroom where videos could be shown for teaching and learning. These students found their lessons useful because they watched and learnt by watching PowerPoint slides, videos on the projector screen. According to Mishra and Koehler (2006), technology acts as a determinant for improving quality teaching. Incorporating Information and Communication Technologies (ICTs) in the classroom motivates students and increases their performance.

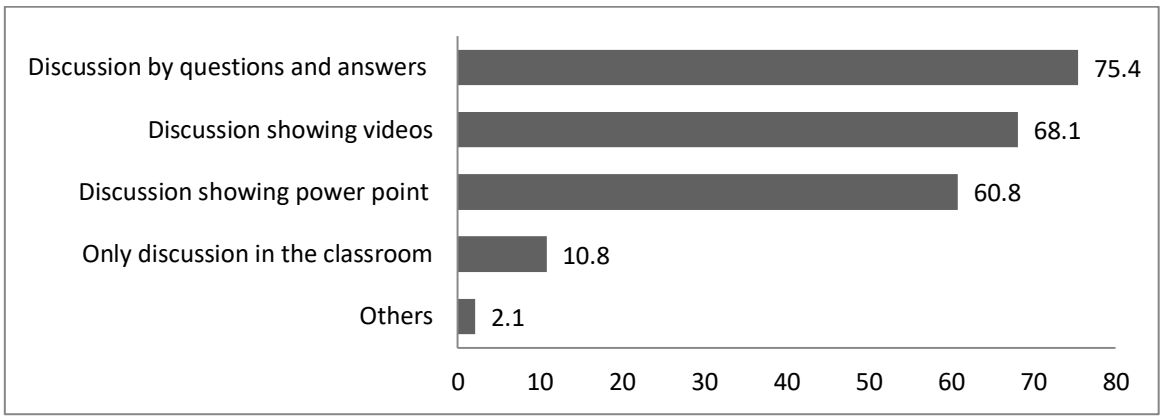

Figure 1: The methods students liked for getting information in the classroom (in percentage)

According to figure 1, Students were more attentive in the classroom if teachers made students empowered by questions and answers session (75.4%). In the class, the respondents also loved to watch educational videos (68.1%). Inside the class, outside the class, or assigned to students to view, online video was the frequently used and 80% of faculty used some form of online video in class for better education(Moran, Seaman, & Tinti-Kane, 2011).

Out of the total respondents, 96.5% saw videos for academic purposes and 78.4% said they got many benefits by watching educational videos. In other research, students viewed educational videos as additional materials which supplemented conventional methodologies and supported self-learning as well as providing flexibility at no extra cost (Rajadell & Garriga-Garzón, 2017).

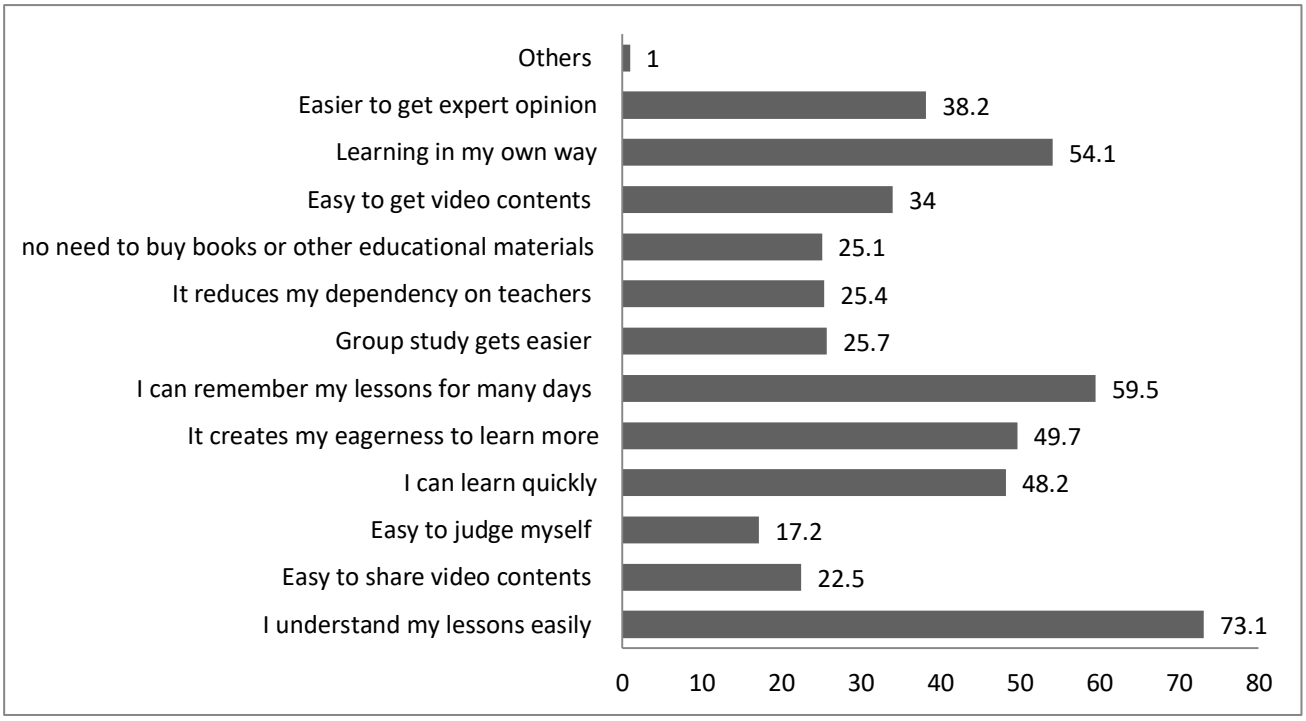

Figure 2: Types of benefits for watching educational videos (in percentage)

According to Figure 2, among many advantages, respondents could understand their lessons easily (73.1%) and remembered them for a long time (59.5%). The result is also confirmed by several researchers. The use of videos had a positive impact on students' perception regarding the improvement of their learning interest, satisfaction and motivation (Bravo, Amante, Simo, Enache, & Fernandez, 2011). Educational videos helped students to get a good view, or have a new addition to the course. Moreover, it offered different ways than traditional notes (Rajadell & Garriga-Garzón, 2017). Another advantage of using videos was cost-effectiveness and a video file could be copied to any computer (Escalada & Zollman, 1997). Berk (2009) also mentioned 20 potential outcomes of video learning in the classroom to consider:

Table 1: Twenty potential outcomes

1. Grab students' attention	11. Foster creativity
2. Focus students' concentration	12. Stimulate the flow of ideas
3. Generate interest in the class	13. Foster deeper learning
4. Create a sense of anticipation	14. Provide an opportunity for freedom of expression
5. Energize or relax students for a learning exercise	15. Serve as a vehicle for collaboration
6. Draw on students' imagination	16. Inspire and motivate students
7. Improve attitudes toward content and learning	17. Make learning fun
8. Build a connection with other students and instructor	18. Set an appropriate mood or tone
9. Increase the memory of the content	19. Decrease anxiety and tension on scary topics
10. Increase understanding	20. Create memorable visual images

The research found that a majority of the respondents (81.6%) perceived their academic result was getting better for watching video content. Moran, Seaman, & Tinti-Kane (2011) found that in classes, educational videos from any online video websites had the greatest value for use.

6.2 Problems with Watching Educational Videos

When respondents were asked why they hadn't got any benefits from watching videos, some respondents replied: videos were not informative (43.3%); language in the video was hard (38.4%); sound problem in the video (32.3%); and video resolutions were not good (28%). Furthermore, 65.8% of respondents faced eye problem for watching videos.

6.3 How to Make Educational Videos?

The study found that mobile (78.9%) and laptop (65.8%) were the most used devices for watching the videos. According to Buzzetto-More (2014), many students surfed online video sharing services from their cell phones. Other research also confirmed that mobile learning using a video clip was successful in skill training and education (Lee et al., 2016). Lecturers and video makers should keep in mind these findings for developing websites and creating videos.

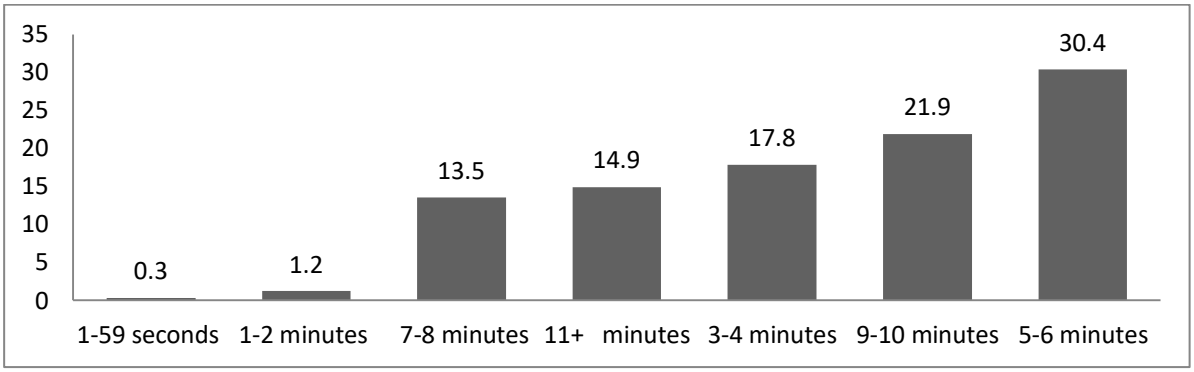

Figure 3: Ideal length of videos for better learning (in percentage)

The figure 3 showed that respondents liked short-length videos (5-6 minutes) most. Actually, if videos are long, they will get bored and it will be hard for them to keep eyes on them. Furthermore, respondents liked the videos that were explained with examples (74%). According to Buzzetto-More (2014), video length had an influence on student decision makings whether to watch a video or not.

Table 2: How educational videos should be made?

Suggestions for making videos	Percentage
i. Making videos with animation.	62.9
ii. Videos using whiteboard	33.3
iii. Live videos	30.4
iv. Videos that combine voice and pictures	63.7
v. Videos like khan academy	12
vi. Others	1

The respondents were asked to provide ideas about how educational videos should be made. They mentioned several ways to make the videos and most students (62.9%) emphasized on making videos with animation. People love animation videos which help them to engage and keep the learning in the memory for a long time.

7. Recommendations

Based on the research findings, some recommendations had been made to make educational videos more useful to the learners. Animated videos, videos using a whiteboard, live videos, videos combining voice and pictures, and khan academy like videos should be taken into account for creating videos as these types of videos were loved most. Short-length videos should be created because long videos can cause boredom and distraction. It is further recommended that videos should be made compatible with mobile, laptop and other updated devices. For helping students and making educational videos, educators, content creators and video makers should keep these recommendations in mind.

8. Conclusion

Higher Education institutions are facing increasing pressure for transformation and modernization of education delivery methods. Information and communication technology (ICT) has now become an essential part of the student experience in educational institutions. Students certainly make good uses of ICTs that work best for their studies (Henderson, Selwyn, & Aston, 2015). New technologies can motivate students and assist in information transmission to students. Furthermore, educational videos provide more rapid explanations comparing to verbal or written forms. As there are the potentialities of videos to allow, expand and even boost student learning, the research was conducted to investigate the impact of university students' use of educational videos on their academic performance.

The study revealed that students loved to watch educational videos and they saw videos for academic purposes. They got so many advantages by watching educational videos in the classroom and outside the classroom. As a result, a majority of the students thought their academic result was improving for watching educational videos. In addition, the study disclosed that most students liked short-length videos and videos with examples. Since the education sector needs to be adapted in ways that meet the needs of our time, the educational institutions should properly consider videos learning inside and outside the classroom with other technologies.

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