



TRENDS OF VIDEO USE IN DISTANCE EDUCATION

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ABSTRACT

Although there are various studies regarding the use of video in distance education, very limited amount synthesizing research on the subject is available. A research trend is identified regarding educational video use in distance education. Findings from the review indicate that there is a rising research trend in applied fields such as education, health and engineering, focusing on the technical aspects of video. However, it has also been found that video use in distance education has not been sufficiently studied regarding its social aspects. Based on the findings of the study, suggestions are made for further studies. Innovative research suggestions about using 360° video and video games in distance education are also offered.

The video classes are one of the main teaching resources in the distance education. Effective tool, use video classes in distance learning is a clear and dynamic way to teach , and usually very pleasing to students.

Video classes consist in video recording of educational content. Increasingly used in online educational institutions and in companies that work the corporate education, the quality level of this material has increased considerably.

KEYWORDS: Trends of Video, Use in Distance Education.

INTRODUCTION

Educational videos are the richest content combining the visual and verbal in the multimedia learning processes in e-learning environments. Videos created by text, sounds and images are powerful tools that are frequently used in current learning environments. Using both visual and verbal elements facilitate learning for learners with different learning styles. Because of this feature, videos enhance the attitudes of students and value of teaching and learning. Furthermore, the rapid development of video technology has been gaining an increasing attention. Especially in recent years; increased video resolution, interactive videos, 360° videos, 3D videos and video games are examples of remarkable video technology.

Educational videos have become an important part of higher education, providing an important content-delivery tool in many flipped, blended, and online classes. Effective use of video as an educational tool is enhanced when instructors consider three elements: how to manage cognitive load of the video; how to maximize student engagement with the video; and how to promote active learning from the video. This essay reviews literature relevant to each of these principles and

suggests practical ways instructors can use these principles when using video as an educational tool.

REVIEW STUDIES

In their study focusing on video trends, analyzed video trends under five categories: determining the video recording limit, determining a basic frame, video synopsis, performance assessment, and video qualities. In another study, using videos in education is important and such videos will have a rising trend in this field.

Research on videos demonstrates that videos offer many more advantages compared to text and images and that they are more informative and facilitate deep learning (Al-Seghayer, 2001; Fletcher & Tobias, 2005; Jukes, McCain & Crockett, 2010; Kesim & Altınpulluk, 2014; Lewalter, 2003). In a study supporting such advantages of videos, Means, Toyama, Murphy, Bakia and Jones (2010) found that learning via video is retained better in memory than learning via still images. Lending further support to this, Shorter and Dean (1994) report that learners usually process and remember what they see more effectively than what they hear or read. Therefore, learning via video can be said to be more effective than the one carried out via static content.



Videos are defined by Bruce and Chiu (2015) as the powerful technologies that are slowly appearing in learning environments. Thus, offering embeddable interactive functions and flexible use in learning environments, video use can be viewed as an important development to increase the efficiency in learning processes. Educators refer to videos as literacy tools (Beach, Campano, Edmiston & Borgmann, 2010), new learning tools (Kalantzis & Cope, 2008), and even as the most convenient tools for learning environments (Miller & Borowicz, 2005). As such, lending themselves for effective use as learning materials in learning environments, identifying video trends is thought to be important. Therefore, determining video use trends in learning environments through the present study is expected to provide guidance for future studies.

RESEARCH PURPOSE

The aim of this study is to identify a research trend by analyzing the scientific research publications on educational video use in distance education by the variables of variation by year, type of publication, the number of citations, related field, source of publication, institution of publication and country.

METHODOLOGY

RESEARCH DESIGN

This study is a research synthesis. The primary aim for research syntheses is to synthesize previously obtained scientific knowledge with the current knowledge, and thus offer powerful suggestions for future research.

INSTRUMENT

In this research Scopus used as data collection environment. Scopus is one of the largest abstract and citation database of peer-reviewed literature including scientific journals, books and conference proceedings. Also it is a product of Elsevier Publishing. The study used Scopus database because of its several properties. First, Scopus system has inquiry system that includes keyword-based, abstracts, title, source, organizations, authors and field queries.

PROCEDURE

In this study, variation of studies on the use of video in distance education was analyzed by year, type of publication, the number of citations, related field, source of publication, institution of publication, and country of publication. Afterwards, the publications were subjected to text analytics by title, abstract, and keywords.

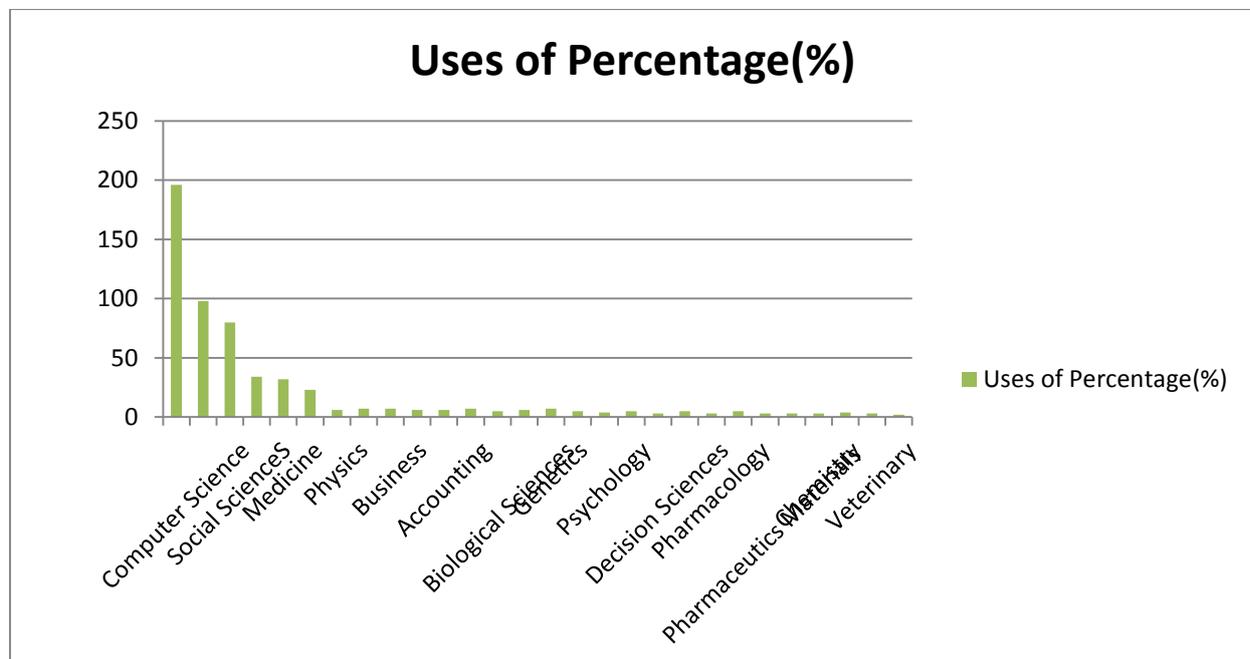


Table 1
Distribution of publications on video use in distance education by scientific field

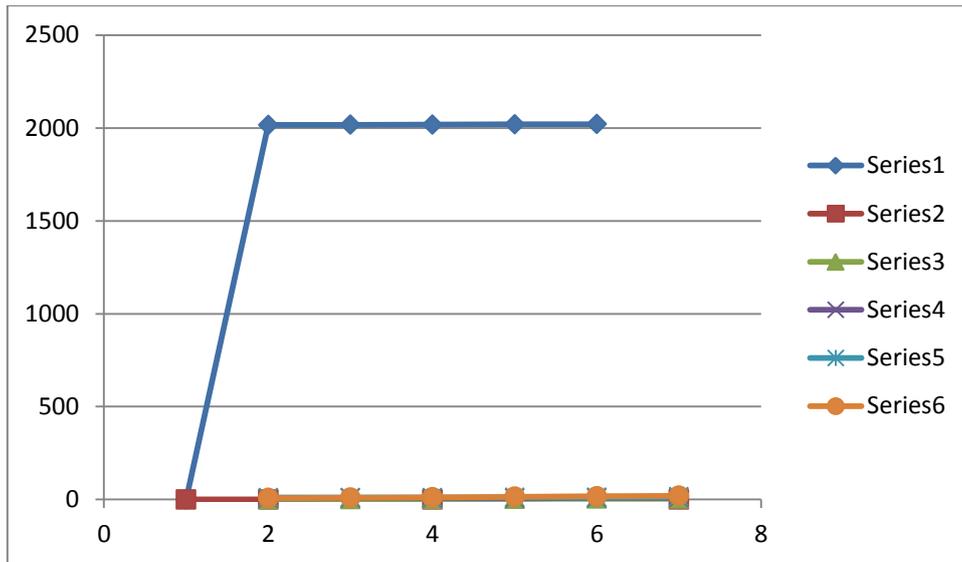


Table 2
Variation of video use in distance education by year (2016-2020)

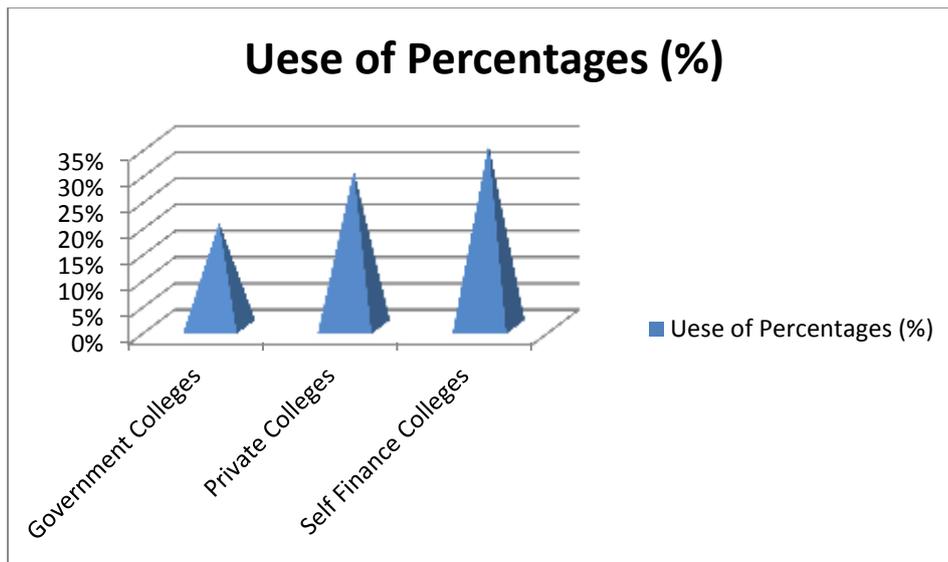


Table 3
Distribution of the publications by institution

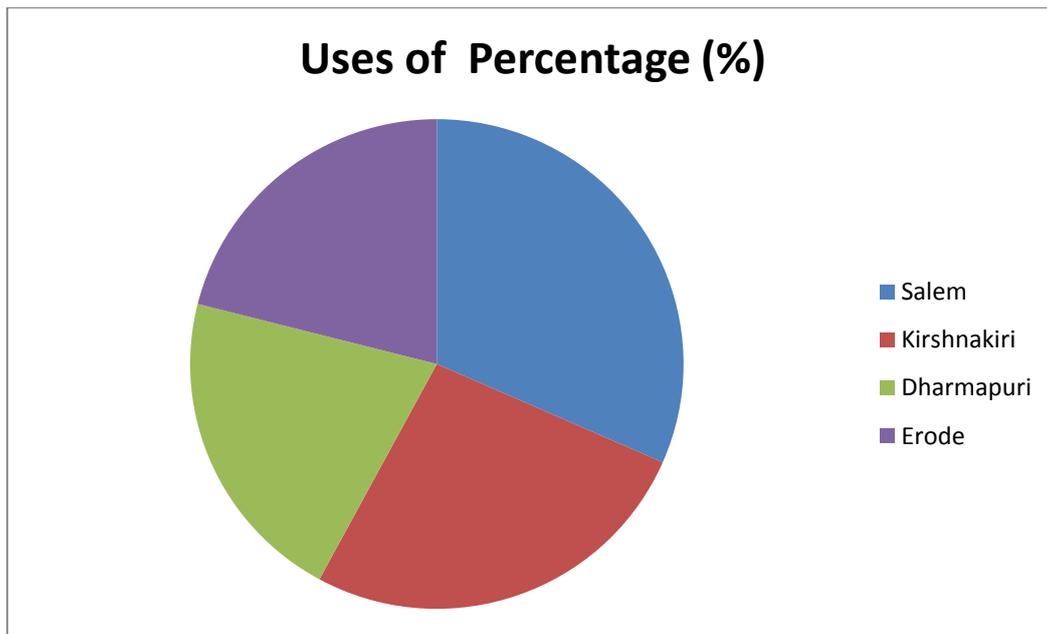


Table 4
Distribution of the publications by District

USE VIDEO CLASSES IN DISTANCE LEARNING

- Videos are more efficient in capturing and keeping the attention of the student than reading materials, for example;
- Through demonstration, this tool is able to make easier the comprehension of a complex concept;
- Creates a greater commitment on the part of the student, contributing to the debate and assimilation of the content;
- Through the use of image and sound, vide classes contribute to building a better relationship between teacher and students.

SUGGESTIONS FOR FURTHER RESEARCH

Within the limitations of this study, it is possible to offer various suggestions for future studies. Firstly, video use in distance education has been found not to be sufficiently addressed in its social aspects (pedagogical, cognitive, psychological, etc.). A number of specific research suggestions can be made on this issue in particular. In order to fill this gap in the literature, related open and distance learning, the effects of videos in distance education on;

- learning processes,
- learner motivation,
- learner academic achievement,
- learner cognitive loads,

Attention levels and disorientation states can be studied through experimental or semi-experimental research designs. The underlying reason

for the recent decline in the number of citations contrasting the increasing number of studies on video use in distance education can be studied both through detailed statistical analyses and interviews with journal editors and experienced field specialists. By the same token, another research focus could be the remarkably high number of publications on distance education videos in the health field. Further, comprehensive surveys can be carried out to analyze the purposes of using educational videos by field and their degree of appropriateness for specific scientific fields. In addition, (in a way to complement the previous research) the reasons for using videos in distance education in the health field can be studied further by interviewing health professionals. Within the scope and limitations of the present study, some innovative research suggestions can also be made. One of them is 360o videos. Some research suggestions regarding the use of 360o videos in distance education are as follows.

- Delphi studies on the potential uses of 360o videos in distance education can be conducted.
- Effects of 360o videos on learners' interest, motivation, achievement, cognitive loads can be studied through experimental and semi-experimental designs, with opinion based qualitative or mixed method studies innovative research topics involving video use in distance education are video gaming and 360o videos. Some further research that can be conducted on using video games in distance education are given below.
- Studies can be conducted to make an assessment of which distance education fields video games can be used for. To do this, learner and expert opinions can



be elicited or important data can be obtained through experimental studies.

• Experimental laboratory research analyzing the cognitive, behavioral, and psychological effects of video games on the learner can be carried out. Especially by employing techniques like eye-tracking, more reliable findings can be obtained.

CONCLUSIONS

The prevalence of the use of video in higher education has increased exponentially over the past decade, and this trend is likely to continue in the future. The advancement of the “Net” generation of students through higher education, the advent of new teaching methods (and video’s role in changing some of these), a changing university environment, the development of digital media, and greater knowledge on the benefits of video in higher education will certainly contribute to this ongoing development. Furthermore, studies have shown that they can contribute positively to both student confidence, motivation and performance levels. In each of these ways, videos are already showing high levels of demonstrable impact in higher education.

For example, one very real measure of success could be the definition of some metrics (or ‘altmetrics’) for the understanding of the relative impact of video use as these are now known for scholarly journals. As one of the “newest kids on the block”, the absence of these metrics for video raises questions for some in knowing whether it can drive good scholarly as well as pedagogical outcomes. As we have seen in this white paper, there is more to be investigated on whether video can play a role in the development of critical thinking, knowledge development and student engagement.

Finally, there are a host of other interesting questions about what specific forms of design, graphics and content types in educational video will drive significant success in students’ emotional response to watching video and their learning performance on courses. This white paper has shown that many students indicate that they like learning from videos, empowering them to learn flexibly and independently, leading them to request online content in their courses. Because students enjoy and request access to video, it can be considered a positive, instructional format which should provide confidence to librarians, faculty members and other constituents that as an educational resource it has a very bright future.

RECOMMENDATIONS

To maximize the benefit from educational videos, however, it is important to keep in mind the three key components of cognitive load, elements that impact engagement, and elements that promote active learning. Luckily, consideration of these elements converges on a few recommendations:

- Keep videos brief and targeted on learning goals.
- Use audio and visual elements to convey appropriate parts of an explanation; consider how to make these elements complementary rather than redundant.
- Use signaling to highlight important ideas or concepts.
- Use a conversational, enthusiastic style to enhance engagement.
- Embed videos in a context of active learning by using guiding questions, interactive elements, or associated homework assignments.

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