Efficacy of new media based video lectures in open and distance education system of India

Mayank Gaur¹, Rashmi Bohra²

Abstract: New Media based learning materials are gaining popularity among teachers and students nowadays. The present investigation was intended to explore the efficacy of new media-based video lectures in Open and Distance Education system of India. For this investigation a sample of 300 students was drawn from three Indian Open Universities viz., Indira Gandhi National Open University New Delhi, Vardhman Mahaveer Open University, Rajasthan and Uttarakhand Open University, Uttarakhand. The 100 students were selected randomly from each University. This research was focused on student's opinions about effectiveness of Video lectures which were watched on New Media Platforms either during their course of study or otherwise. In order to know the effectiveness of video lectures, a questionnaire consisting of 16 items were used. The questionnaire was designed to get responses about the duration of video lectures, their presentation format, the language used, and the mode of delivery of lectures. Data revealed that video lectures of short duration were more popular. Further the format containing the Presenter with PowerPoint presentation, integrated with Animations and Graphics format was more popular among respondents. As far as language was concerned, both English and Hindi were preferred equally by respondents. The mode of delivery of video lectures which was preferred was online and New Media (web) based. TV broadcasting was least preferred by respondents. The above findings indicated that an effective video lecture with duration of less than 15 minutes including Presenter with PowerPoint presentation integrated with Animations and Graphics format either in Hindi or English were more effective delivered through New Media (web) based platform.

Keywords: New Media, E-learning, Indian Open Universities, Open Distance Learning, Video Lectures.

Introduction

New Media is a combined network of all digital medium including Social media platforms. The New Media world opens the varied opportunity for users to explore different kinds of information and get connected through the utilisation of the Internet. The technology-based in New Media provides Rich resources of information and knowledge that could be very essential for learners or students. It continuously growing with different kinds of New Media like YouTube, Facebook, and WhatsApp, which have possible potential to enhance the quality of instruction in Open Distance education. Some basic features of New Media based video lectures could have a remarkable impact on the development of the teaching-learning process.

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As per the present scenario video lectures, based on e-learning has become more advanced (Sharma, 2018 and 2018a). In today’s world students have become digital natives who are approaching to watch more digital content. It can be related to educational or something different. Social Media has a wide and great potential in learning skills especially the YouTube Platform. It has a wide range and abounds of learning aspects, which is yet to be fully explored. YouTube with a wide range of easily accessible, enhance instruction and increase the interest of users. With a variety of content, YouTube has become the most eminent e-video content provider and also the world’s largest video sharing service. This study had been focused on exploring the factor of effective video lectures through New Media based system in mode of distance education learning. E-lectures provide flexibility, accessible on-demand, and most important, easy to access anywhere at any time (Chander & Sharma, 2003).

**Literature**

According to Choi, Kim, and Kim (2007), “E-learning systems deliver training materials synchronized or unsynchronized to multiple distant locations. They may be capable of providing training over the LAN, WAN, or Internet”. As a generation of New Media technology-based learners, they use to Web-based medium to acquire the information. New Media based video lecture refers to video learning content through social media and mobile app-based platform.

Buzzetti and Nicole (2015) stated that the importance of the use of YouTube as an instructional aide and that use is consistent with the Cognitive Theory of Multimedia Learning which states that video is particularly effective at knowledge construction and memory building.

Murthy& Naraharisetty (2011) summarized the effectiveness of video-based lectures and voice-based presentations in terms of e-Learning content, Retention of learning, Ease of use, Satisfaction, Video quality, and Audio quality. They found that the duration of video lectures might be limited to a maximum of 20 minutes. A video lecture can be impactful with voice over also consist of text-based concepts along with some animated diagrams and graphics supplement with connected hyperlinks for more illustrations.

Nawaila & Bicen (2018) suggested that WhatsApp provided several benefits like it’s a free application that can be easily affordable, a good source of entertainment, helps in relationship and communication, the source of information, cost-effective for E-learning and knowledge sharing.

Otto Peters (2001) summarized “The concept of open learning offers interesting opportunities for the further development of distance education, which can only be exhausted if teacher and students work out a new perception of themselves, and if learning and teaching in distance education is structured, arranged and organized differently so that it can be adapted flexibly to the different learning requirements of a very heterogeneous clientele”.

**Theoretical Background**

At present in India, there are several university-based on distance education system i.e National University Indira Gandhi National Open University and 13 state-level Open Universities. There main goal is expansion of Distance Education. However, presently Odessa Open University is taking shape. Distance education has always been very accessible and flexible form of learning and teaching (Sharma & Garg, 2005). Open and Distance learning approach had a significant impact on learning and teaching. Distance education offered flexible learning via new media-based materials (Vyas, Sharma & Kumar, 2002; Kumar, Sharma & Vyas, 2003). The development in New Media has created a new trend of teaching and learning in distance education mode.
Multimedia-based E-learning provides flexibility in program delivery and magnifies the content by focusing subject matter expertise that may not be available locally. In the main, video E-lecture provides “personalized and self-regulated” learning medium (Henz, Dologand, Nejdl, 2004). E-learning is the mode of training and education through digital communication technology to deliver knowledge. As we see, traditional face-to-face learning methods had their limitations; it was bounded with time and location. E-learning provides a significant learning environment for students. E-learning is a new approach for learning through telecommunication technology such as internet. Students can get benefit through getting information at any time and at anywhere. In order to understand the influence of E-learning on students and the intention to use E-learning system and the impact of using the system, recent studies designed different learning methods over various learning systems (Chou & Pi, 2015).

New Media technology provides teachers with an opportunity to engage learners in the online classroom, as well as to support the development of learner skills (Kanioglu, Altinay, Dagli, Altinay, Soykurt, & Sharma, 2017). The Social media is basically organised in a manner that consist of individuals, communities, organizations, companies or classes in universities with similar interests, attitudes, values, vision, lifestyle friendship and learning objectives in the field of E-learning this structure can be used in many ways and through a number of tools (Anaraki, 2015). For advance learning educators must seek out new and old teaching and learning theories for providing best and meaningful education to the learners. In this new era of e-generation, New Media is clearly proving to be a significant technological revolution. It is creating a significant motion as a dynamic content provider and interactive media indeed revolutionizing the world of communication.

YouTube is a useful medium for E-learning because of its free and can be used to promote and support education, while viewers can also rate the video’s content and quality as well as gives feedback about the content in the comment box. YouTube provides the facilities to create its video channel that can be Educational, Entertainment, and Informative, etc. YouTube plays a significant role in E-learning that can be taught visually. But from video point of view the video production is not being able to produce videos integrated with textual content, slideshows, quizzes, etc. YouTube has a large variety of audio- video content on every subject. This thing makes the YouTube popular among the students. YouTube provides a modern LMS platform, such as Moodle, make it easy to embed its videos in your e-learning courses. It is a strong platform to deliver video lectures to students. YouTube has a large variety of audio-video content on every subject that makes it easy to embed its videos in your E-learning courses.

In today’s world, the use of technology is very frequent. Technology related to mobile is using frequently in online instruction in universities worldwide (Jimoyiannis, Tsiotakis, Roussinos, & Siorenta, 2013). Information and communication technologies shared between online students through social networking on mobile tools promote opportunities for online cooperation and collaboration. WhatsApp is the online application that offers the facility of instant messaging with online collaboration and cooperation between online students connected from school or home on mobile. It is a free online application that is easy to access by the society. It provides the option to create the Group on WhatsApp for instant messaging, that can share learning objects easily through photos, videos, audios with number of people in that group. WhatsApp also has a feature of video calling, which can be used for a live session or a live class. Through WhatsApp instant massaging E-learning information and knowledge can be easily constructed and shared.

In the current scenario, video lectures and its delivery mode should be effective than only the New Media dimensions E-learning will be progressive. This research was conducted to explore the effectiveness of New Media based video lectures which were already available on New Media platforms i.e. YouTube, WhatsApp, Facebook, etc.
Methodology

Research Model/Design

The present study was focused on the efficiency of New Media based Video lectures in open and distance education of India. The study was based on the Survey method and conducted through the Questionnaire.

Data Collecting Tools

In this study to find out the opinion of the students, the Survey-based method has been used. The questionnaire has been developed which consists of 16 items of ‘Yes’ and ‘No’ based rating. All items covered within four domains. viz., 01. Duration of video lectures, 02. Presentation Format, 03. Language and 04. Mode of delivery of video lectures. All four domains indicate to effectiveness of video Lecture. The subjects were asked to rate their opinion on each question. To find out the effectiveness of video lectures in different domains, the Questionnaire was crafted with 16 different questions covering four domains of video lectures. The subjects selected from three India Open Universities were presented the questionnaire and asked to give their response to each question. The responses obtained on each question of the questionnaire were calculated in percentage form and then analyzed.

Sampling or Study Group

There are 14 State Indian Open Universities and One National Open University. These Universities have a large number of students. The Study was delimited in three Indian Open Universities which were Indira Gandhi National Open Universities, New Delhi, Vardhman Mahaveer Open University Kota, Rajasthan, and Uttarakhand Open University Uttarakhand. Students of these three Indian open universities were chosen as Population of this research. For this study random sampling has been used for selecting the samples. 300 students were drawn as samples from these universities. The 100 students were selected randomly from each University those belonged to PG, PG Diploma, Graduation, Diploma and Certificate Programmes. The data were gathered from the contact classes, counseling program camps, and practical camps at University’s study centers.

Data Analysis

1. Video Lectures are easy to access at any time and everywhere

![Figure-01](Image)

Video Lectures are easy to access at any time and everywhere

- Yes 93%
- No 7%
On item 1, 93% of total students accepted that the Video Lectures are easy to access at any time and everywhere while 7% of students denied it. Figure 01 indicates the same.

2. **Video lectures are effective in Open Distance Learning**

![Figure-02](image)

The fig. 02 shows that 88% of the total students agreed with the item 02 'Video lectures are effective in Open Distance Learning,' but 12% of students were not agreed with this item.

**Domain -01 Duration of Video Lectures**

3. **Duration of effective video lecture should be less than 15min**

![Figure-03](image)

The Pie-Chart-03 depicts that 61% of students accepted the effectiveness of the Video lectures, which are of less than 15 min, but 39% did not accept the same.
4. **The duration of an effective video lecture should be 16 to 30 min.**

![Figure-04](image)

On this item, the 71% of students are not agreed with the duration of an effective video lecture of 16 to 30 min., while 29% of students accepted that the duration of an effective video lecture maybe 16 to 30 min (Pie Chart 04).

5. **The duration of an effective video lecture should be more than 30 min.**

![Figure-05](image)

Figure 05 shows that 90% of students refused to accept the duration of effective video lecture should be more than 30 min. Whereas 10% of students liked that the duration of video lectures should be more than 30 min.
Figure 06 shows that 61% of students liked to less than 15 minutes of duration video lectures. 29% of students said ‘Yes’ to 16 to 30 minutes duration’s video lectures. Only 10% of students showed an interest in more than 30 minutes duration of video lectures.

Domain -02 Presentation Format of Video Lectures

6. Only Presenter based video lecture format

Above pie chart (Figure-07) shows only 12% of students liked to see the ‘only Presenter based video lectures,’ and they feel this format is effective for video lecture teaching on another hand 88% of students did not like to see the ‘only presenter based video lectures’.

7. Voice Over+ PPT based video lecture format

Chart08showsthat85% of students do not like to watch the format of Voice-Over + PPT based video lectures; instead, they like the old format. However, 15% of students liked it and said that this format could be more effective for distance education learning.
8. **Presenter+ PPT+ Animation+ Graphics based video lecture format**

The 73% of total students liked ‘Presenter+PPT+Animation+Graphics based video lecture format’ and said it is effective for open distance learning, (item 8 and fig. 09). However, 27% of the students did not agree with this format for distance learning.

Figure 10 indicates that 12% of students liked “Only Presenter” based video lectures, and 15% of students showed their interest in “Voice Over+ PPT” based video lectures. 73% of students liked to “Presenter+ PPT+ Animation+ Graphics” based video lecture format for ODL.

**Domain -03 Language of Video Lectures**

09. **English Language-based video lectures**
The pie chart 11 depicts the opinion of distance education students on item 9. The 42% of students opined that the English language-based video lectures are effective for distance e-learning while 58% of students said No for the English language-based video lectures.

10. Hindi Language-based video lectures

For the Hindi language-based video lectures, 41% of students gave their opinion in ‘Yes’ and said such lectures would be effective in Open Distance learning. While 59% of students were not agreed (chart 12 and item 10) with this.
11. Regional language based video lectures

Fig. 13 depicts that only 3% of students like to e-learning in the Regional language, while 97% of the total students did not like to watch regional language-based video lectures for e-learning.

12. The Bi-Lingual (English & Hindi Mix) language-based video lectures

On the item of Bi-Lingual language-based video lectures, 15% of students were agreed and said ‘yes’ it is effective (fig. 14). But 85% of students opined that such videos are not effective for open distance e-learning.
In Figure 15, 42% of students liked English language-based video lectures. 41% of students agreed that the Hindi language-based video lectures are effective in ODL. Only 3% of students supported Regional Language-based VL. The rest of 14 students accepted Bilingual language-based video lectures.

Domain-04 Mode of Delivery of Video Lectures

13. The Mode of delivery of video lecture should be Online and Web-based

The mode of delivery of video lecture plays an important role in distance education learning. 57% of students liked and preferred to learn from web-based or online-based video delivery, and they agreed that the mode of video lectures delivery should be online or web-based. 43% of students did not agree with this (fig. 13).

14. The Mode of delivery of video lecture should be Offline CD/DVD or Storage Device based

91% of students did not prefer the CD/ DVD or storage based like Pen-drive or memory card, based video lectures delivery mode for distance learning on the other hand 9% of students were agreed that this format could be useful as shown in below the fig. 17.
15. The Mode of delivery of video lecture should be TV Broadcasting based

![Pie-chart 18](image-url)

Figure-18

Pie-chart 18 indicates that 93% of students majority rejected the TV broadcasting mode for Video lectures study in Open-distance education. Only 7% of the students showed their interest in this format.

16. The Mode of delivery of video lecture should be Mobile or Android App-based

![Pie-chart 19](image-url)

Figure-19

Mobile app technology is growing fast in New Media technology and spreading worldwide. But many people are not aware of app-based video lectures available in the New Media. As depicted in the fig.19, 27% of students of open distance education liked to watch video lectures on the mobile app, but 73% of students said No for this.
Figure 20 is showing that 57% of students liked Online and Web-based video lecture delivery format. 9% of students showed interest in Offline CD/DVD or Storage device based delivery format. Only 7% of learners liked to watch video lectures through TV Broadcasting based delivery format. 27% of students agreed that the mobile app-based video lecture delivery format is effective for E-learning.

Findings and Discussions

The results of this study reveal that more than 90% of students agreed that New Media based Video Lectures are easy to be accessed at any time and everywhere. While more than 80% of the students said that Video lectures are effective for Open Distance Learning. The research is focused on four domains of New Media based teaching video lectures, viz., Duration of VL (Video Lecture), Format of VL Presentation, Language of VL, and Mode of delivery of VL, hence we will discuss the results obtained on these domains.

Domain 01

Duration of Video Lecture - The result on this domain shows that more than 60% of students like to watch video lectures which are of less than 15-minute and they agreed that the duration of this period is effective in Open distance education. Some students (29%) also like the video lectures of 15 to 30-minute. However, very few students (10%) opined that more than 30-minute video lecture could be useful for open distance learning. There has conducted some researches that learners have shorter attention spans than previous generations. However, there is little evidence to support this claim. Bligh’s What’s the Use of Lectures? (2000), McKeachie’s Teaching Tips (2002), and Sousa’s How the Brain Learns (2006), all suggested that students’ attention spans decrease after a short time and recommend breaking up lectures into 10-to-15-minute duration sections. This study concluded that the Video lectures of less than 15 minutes duration are more effective in Distance Learning Education.

Domain 02

Video Lecture Presentation Format - The result obtained on this domain reflects that 73% of the students like the format of ‘Presenter+ PPT+ Animation+ Graphics’ based video lectures while 16% of the respondents agreed with ‘Voice Over+ PPT’ based and only 11% of the respondent like ‘Presenter’ based video lecture format. According to some researchers in studies that adhering to basic principles of graphic design and visual literacy can be helpful to an effective video lecture. There are some indications that the visual design of multimedia learning materials directly impacts student learning.
Any PPT or slide presentation created for a video lecture should incorporate Graphics and Animations to it. In the PPT or slide presentation should be a background and font color that have high-value contrast increases readability. The Present study also found that the students liked most Animations and Graphics with bundle of Presenter and PPT based video lectures.

Domain 03

Language of Video Lectures- The participants are found to be more positive with the English and Hindi language-based video lectures. More than 82% of students gave their positive verdict in favor of English and the Hindi Language-based video lectures. The 17% Learners did not take much interest in regional language and Bilingual (Hindi and English mixed) language-based video lectures. The Learners agreed that either Hindi or English language-based video lectures could also be effective for distance education-based learning.

Domain 04

Mode of Delivery of Video Lectures-The major difference between the newer digital learning platform (i.e., New Media based) and the traditional video learning platform (i.e., TV Broadcasting) is learners’ involvement. Now the days the Learners have shifted to New Media based Platform, and the results of the study also show the same things. More than 57% of learners opined that the ‘Online and Web-based video lectures delivery Mode’ is more effective for the opened distance education students. Mobile-based technology is flying on a technological cloud; per day, it has a new chapter with new add-on services. More than 27% of students want to use a mobile app-based platform for video lectures. Now the learners have moved from TV broadcasting based learning platform to New Media platforms. Only 7% of students want to learn from TV broadcasting video lectures. 9% of students want to DVD or storage device based delivery of video lectures. The research concluded that new media-based video lectures are effective in ODL (Open Distance Learning) system but need to be focused on some criteriarelated to new media video production. Along with that, need to be spread to new media technology awareness.

Conclusion and Suggestions

Data revealed that video lectures of less than 15 minutes duration were more popular and liked more by students. Further, the format containing the presenter with powerpoint presentation, integrated with Animations and Graphics format was more popular among students. As far as language was concerned, both Hindi and English based video lectures were liked equally by respondents. The mode of delivery of video lectures which was preferred was online and web-based. TV broadcasting was least preferred by respondents. The above findings indicated that an effective video lecture with duration of less than 15 minutes including Presenter with Powerpoint presentation integrated with Animations and Graphics format either in Hindi or English were more effective delivered through web-based platform. Indian Open Universities Students gave their verdict in favor of short duration video lecture integrated with format of Presenter including PowerPoint, Animations, and Graphics either in Hindi or English were effectively delivered via New Media (Web) based (YouTube) Platform.

Indian Open Universities need to create a model for New media-based video lectures in terms of Duration of video lectures, Presentation Format, Language, and Mode of delivery of video lectures. They also need to require knowing the path of maximum utilization of produced video learning material. New Media based technology is offering a pedagogical path to all students who want to gain knowledge through distance learning. To the way conclusively, it can be interpreted that the use of New Media based technologies at open Indian universities have a wide scope but a long way to go.
References


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