EDUCATIONAL INSTRUCTIONAL VIDEOS: EFFECTTIVE STRATEGIES FOR TEACHING MASS COMMUNICATION IN THE DIGITAL AGE

BY

ABDULMUHMEEN TAYO MOYOSORE

DEPARTMENT OF MASS COMMUNICATION
KWARACAILS, ILORIN

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Abstract

Unarguably, we are encircled, indeed, wrapped up, in technology. Technology has led to colossal changes in the economy, in the way we communicate and relate to each other, and increasingly in the way we teach as teachers and learn as students. Generally, teachers and instructors are faced with a massive challenge of change in the various forms of teaching instruments which is caused by technology. This study assessed the instructional effectiveness of educational instructional videos by 100 purposively selected mass communication students from the National Open University of Nigeria. The students were exposed Io instructional learning videos on one of their courses for a period of 10 days after which they were assessed' on the learning outcomes of the course. Findings from the study showed that the students found the videos interesting and its ease of use and accessibility helped to enhance their learning arriving at a conclusion that in teaching mass communication in the digital*age that educational instructional videos are useful instructional resources and therefore recommend the collaborative integration of' video resources with other text based learning materials to provoke critical thinking among students of mass communication and other viable courses .

Introduction

The field of education is challenged with keeping pace with the swift technological advancements that the society is experiencing; and acclimatizing such technologies to classroom teaching and learning is a tall mountain to climb with the most difficult point being the inability to develop the best teaching and learning environment for students of the digital

age. Boateng, Boateng, Awuah, Ansong and Anderson (2016) notes that many educators and researchers have endorsed video lectures as an imperative too! for establishing the setting or starting point for learning.

Video lectures, one of the most expanded and separate practical learning channels captures and presents information; and offers a sensory learning environment that permits learners to understand more and retain information belter (Fern et al. 2011). As stated by Gia. Lawrence and Juan (2015), the use of videos in teaching is not novel. They date back to primeval times when cave teachers utilised 16mm projectors to show cave students examples of insurance company marketing commercials in business courses (Berk, 2009). However, the use of educational video and television in classrooms has risen steadily over the past 20 to 30 years. according*to a series of studies conducted by the Corporation for Public Broadcasting. As an instructive technology in the classroom, it has assumed an exclusive sequence of operation over time. Broadcast television and film were first used, chiefly as out-of-the classroom arrangements for enhancing learning (Grecnberg, et al., 2012).

Videos have become valuable and essential academic tools. They provide good illustrations of digitized images, text and sound that can be uploaded to a shared virtual community (Goldman 2007) and can also be interlinked with slides, supporting texts, resource links, discussion boards, chat platforms among others, as part of a virtual learning environment. The value of videos also lies in the ways they are put to use in real life teaching and learning situations. Learning activities that students perform with videos play a critical role in learning outcomes (Karppinen 2005).

Furthermore, video based instructional materials enhances student creativity and cooperation (Gia, Lawrence and Juan. 2015). Access to video can help motivate students and create a distinctive context for their learning experience. Ogimbote and Adesoye (2006) expressed that multimedia technology adds new dimension to learning experiences because concepts were easier to present and comprehend when the words are complemented with images and animations.

When used correctly, video can serve as a powerful teaching tool. Koumi (2006) describes three key types of value that video is well placed to add in an educational context:

(a) cognitive.
(b) experiential, and
(c) nurturing.

Cognitive value can be added through visual strategies to assist learning, such as demonstrations of processes using animated graphics. Experiential value provides vicarious experiences, allowing students to see something in a video that they might not be able to see in everyday life. Nurturing value refers lo video's power to motivate and connection with the audience through the affective domain. Mishra (2001) in Lapada and Lapada (2017) said is useful to show practical and real-life activities and can be used to capture hazardous and costly experiments for presentation and for repeated use. Tooth (2000) in Donkor (2011) also observed that video resources are expensive to produce but are very useful where practical demonstrations of skills are required.

The integration of technology into Nigerian academic environment is steadily becoming a venture for most institutions. However, there has been a gap between refining ICT infrastructure and the incorporation of technology, specifically videos into the teaching and learning process (Awidi 2008). Worthy of note here is the fact that the traditional classroom mode of teaching still remains the most common and widely used method used to teach mass communication students in most Nigerian Universities.

In the National Open University of Nigeria, video lectures were used within a period of time. These videos were recorded as complimentary materials by lecturers in the institution and presented to the students of the institution through the NOUN iLearn Platform as complimentary materials to their written course materials. In this study, we attempted to provide answers to questions bothering on the instructional effectiveness of these videos as well as mass communication students' perceptions about the videos.

Study Objectives

1. Ascertain the instructional effectiveness of educational instructional videos
2. Examine Mass Communication students' perception of the use of instructional videos by tutors.
3. Investigate the potential benefits of using educational instructional videos by tutors.

Literature Review

Diverse studies have been used to describe the benefits of instructional videos in other fields. Although, none has focused on the field of mass communication. For instance, a study of 147 psychology students reported that video was a more effective method of teaching than text for giving real-life situations in order to improve the learner's understanding, retention and

gratification (Choi and Johnson 2007). In another study among English and Management students, it was stated that digital video encouraged the contextual aspects of learning, as well as the emotional involvement in the entire learning process (South ct al. 2008; Hakkarainen et al. 2007).

Similarly, in the bid to assess the perceptions and attitudes of students at the University of Ghana towards the use of videos as a medium for teaching and learning, Boateng, Boateng, Awuah, Ansong and Anderson (2016) collected qualitative data using semi structured interviews. Findings showed that students perceived videos in general as being of some benefit to their learning activities. Overall, comments on videos as a medium of teaching and learning were positive. However, students had negative perceptions about the nature of the videos they watched. Almost all the participants indicated that they had issues with the content and the format of all the videos they watched. But, majority of the participants perceived that the videos they watched enhanced their learning outcomes and improved their learning approach. Also, in order to examine student perceptions and preferences regarding the implications of YouTube, Buzzctto-More (2014) studied student opinions regarding the usage of YouTube videos to supplement instruction in online and classroom based courses. Findings showed that use of YouTube in the teaching and learning process enhances instruction with students most likely to visit video sharing services from mobile devices.

Multiple academic studies have further shown that video, specifically, can be a highly effective educational tool. Breeht (2012) investigated the instructional value of online video lectures videos that a course's instructor prepares to supplement classroom or online-broadcast lectures. Three video designs were tested, each with an alternative learning environment designed into the videos. The most significant findings are that video lectures are used by students for tutorial help, they improve initial learning, they reduce dropout rates, and they improve course grades. Mendoza, Caranto and David (2015). Studied the effectiveness of video presentation to students' learning. Questionnaires were administered to 224 students of Benguet State University to measure effectiveness of video presentation to student's learning. From the outcomes, it was found out that the level of effectiveness of video presentation to students learning is highly effective.

Roshier, Foster and Jones (2011) using a focus group in the format of the nominal group technique studied veterinary students' usage and perception of video teaching resources. The

students had a positive perception of video usage in higher education. Also, students highlighted a number of strengths of video resources including;

(1) teaching enhancement,

(2) accessibility,

(3) technical quality and

(4) video content.

Of these items, students rated teaching enhancement and accessibility most highly.

Willmot, Bramhall, and Radley (2012) show that there is strong evidence that digital video reporting can inspire and engage students when incorporated into student-centred learning activities through:

- increased student motivation
- enhanced learning experience
- higher marks
- development potential for deeper learning of the subject development potential for deeper learning of the subject development potential for deeper learning of the subject
- development of learner autonomy
- enhanced team working and communication skills
- a source of evidence relating to skills for interviews
- learning resources for future cohorts to use
- opportunities for staff development (CPD). (p.3)

According to a summary of current research and educator surveys, educational television and video:

- Reinforces reading and lecture material
- Aids in the development of a common base of knowledge among students
- Enhances student comprehension and discussion
- Provides greater accommodation of diverse learning styles
- Increases student motivation and enthusiasm
- Promotes teacher effectiveness (CPB, 2004)

Theoretical Foundation

The theoretical justification for the effectiveness of video is absent from most studies. However, the Cognitive Theory of Multimedia Learning (Mayer 2009) comes closest to clearing up the literature on teaching with videos. That a picture tells a thousand words cannot

be successfully debated. This was probably the thoughts of Thomas Rdison in 1922 when he proclaimed that "the motion picture is destined to revolutionize our educational system and that in a few years it will supplant...the use of textbooks" (Mayer and Moreno, 2007). However, 'thoughts arc provoked when one imagines the blissful conjugation of pictures with words in the academics. Over the years, various studies and hypothesis have been developed and revolved in an effort towards understanding and establishing a standard and beneficial learning procedure for learners. Paivio (1971) cited in Paivio (2006) created the du.al-coding theory. According to Paivio, there are two ways a person could expand on learned material: verbal associations and visual imagery. Hence, the Dual-coding theory postulates that both visual and verbal information is used to represent information (Stcrnberg, 2003). Furthermore, Baddeley & Hitch proposed their three-part working memory model and Sweller in the 1980s proposed the Theory of Cognitive Load designed to provide guidelines intended to assist in the presentation of information in a manner that encourages learner activities that optimize intellectual performance" (Swelier, Ayres and Kalyuga, 201 1).

The above theories and others formed the foundation for Mayer's Cognitive Theory of Multimedia Learning (Sorden, 2012; Mayer and Moreno, 2007). Mayer (2011) defines multimedia as the presentation of material using both words and pictures. Rahman (2011) notes that this definition of multimedia is narrowed down to two forms of information: verbal and pictorial or visual as shown in figure 1.

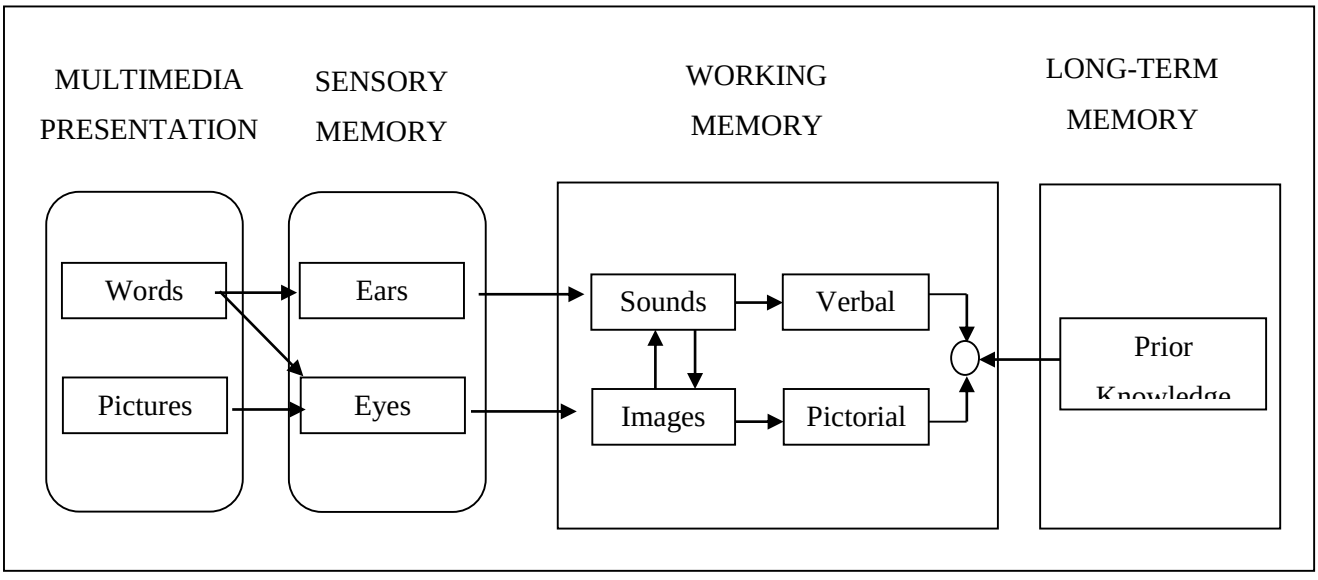


Figure I: Visual Representation of the Cognitive Theory of Multimedia Learning (Source: Mayer 2001)

As showed in figure 1, Mayer's model is based on three primary assumptions which are (Mayer 2009; Mayer 2014) as follows:

i. Visual and auditory experiences or information are processed through separate and distinct information processing 'channels.

ii. Each information processing channel is limited in its ability to process experiences or information.

iii. Processing experiences or information in the channels form an active process designed to construct coherent mental representations.

According to Rahman, throughout the 1990s and beyond, Mayer and his colleagues conducted researches investigating the nature and effects of multimedia presentations on human learning. As stated by Mayer and Moreno (1999) cited by Rahman (2011) in one of the experiments, students viewed a computer animation depicting the process of lightning. In Experiment 1, they concurrently viewed on-screen text presented near the animation or far from the animation, or concurrently listened to a narration.

In Experiment 2, they concurrently viewed on-screen text or listened to a narration, viewed onscreen text following or preceding the animation, or listened to a narration following or preceding the animation. Learning was measured by retention, transfer, and matching tests. Experiment 1 revealed a spatial-contiguity effect in which students learned better when visual and verbal materials were physically close.

Rahman citing. Mayer's (2001) notes that the theory on multimedia learning involves seven principles that can be applied for the design of multimedia messages

1. Multimedia Principle noting that students learn better from words and pictures than from words alone.
2. Spatial Contiguity Principle that students learn better when corresponding words and pictures arc presented near rather than far from each other on the page or screen
3. Temporal Contiguity Principle: here he noted students learn better when corresponding words and pictures are presented simultaneously rather than successively.
4. Coherence Principle: here, students can better when extraneous words, pictures and sounds are excluded rather than included.
5. Modality Principle: students learn better from animation and narration than from animation and on-screen text.

6. Redundancy principle: here, students learn better from animation and narration than from animation, narration and on-screen text.
7. Individual Difference Principle: here, he noted that design effects are stronger for low-knowledge learners than for high-knowledge learners and for high-spatial learners rather than low-spatial learners.

Based on cognitive theory and research evidence, learning courses should include words and graphics, rather than just the words alone. Students-will more likely understand the material and memorize it better when they are engaging in active learning- instructional video does just that; it encourages students to mentally represent the material in words (written or narrated) and pictures and make the connection between the pictorial and verbal representation. This significantly improves recall of heard and seen and also fosters creative thinking.

Methodology

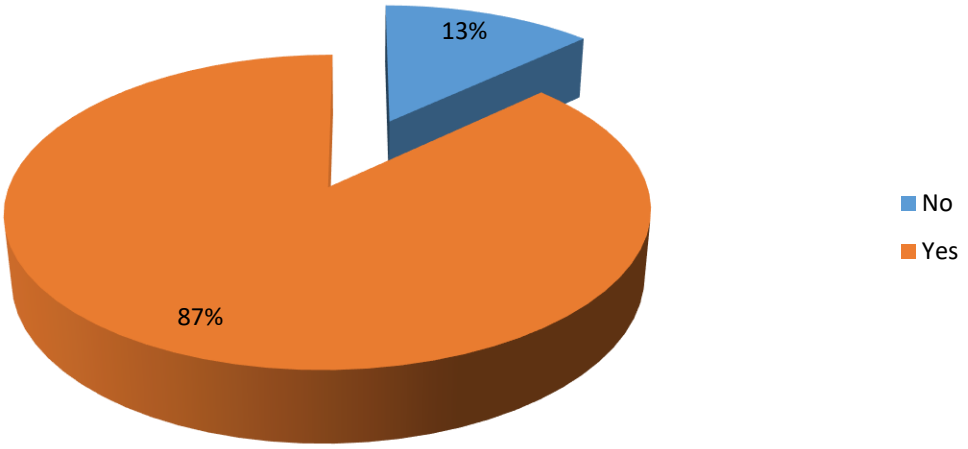
Leedy and Ormrod (2010:12) agree with Babbie and Mouton (2008:74) that research methodology refers to the researcher's general approach in carrying out the study. The design for this study was survey accompanied by interview. Survey according to Nwosu (2006:67) "is a research method, which focuses on a representative sample derived from the entire population of study". Wimmer and Dominick (2014) explained the relevance of survey research which focuses on people, the vital facts of people and their beliefs, opinions, attitudes, motivations and behaviours.

A 100 fresh students of Mass Communication students from Enugu Study center of National Open University were presented with 15 instructional videos shot by the lecturer to cover the curriculum of one of their introductory courses. The videos were within 5 to 7 minutes. The students were to watch the videos along with their course materials for a period of 10 days after which they were to return to fill up questionnaires geared towards assessing their opinions on the instructional effectiveness and their general perception of the video instructions.

Findings and Discussion

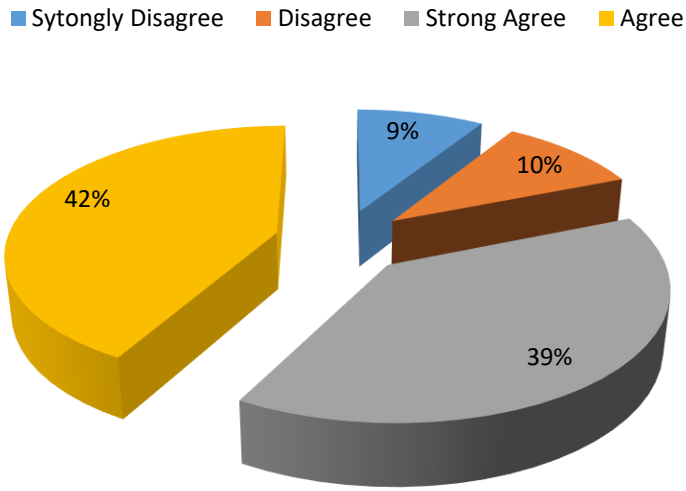
Instructional Effectiveness of the Videos

Mere, the study intended to ascertain whether or not the videos on the courses met the learning outcomes of the courses for the students and whether or not the students understood what they were taught in the videos and the course generally based on what they learnt from the video. The first item was geared to measure whether or not the video met student's learning requirements.



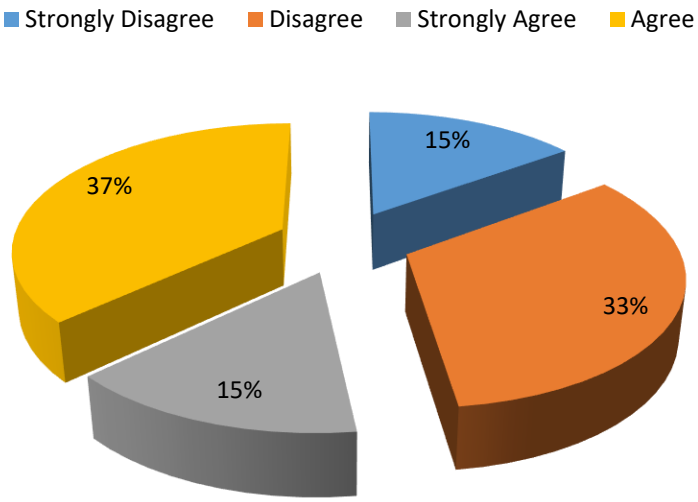
Findings as presented in the figure shows that 87% of the respondents disclosed that the videos met their learning requirements while 13% noted that it did not.

The second item was geared towards examining if the video enhanced students' learning experience.



Findings in the above figure showed that 42%of the student respondents agreed that the video enhanced their learning experience; 39% respondents strongly agree while 10% disagreed and 9% strongly disagreed.

Furthermore, respondents were asked if they needed to read their course materials along with the video before they understood the course.



Findings from the figure suggest that 37% of the respondents agree that they did not need their course materials to understand the course after watching the video; 33% respondents disagree while 15% strongly disagree and strongly agree respectively.

Students Perception of the Use of Instructional Videos -

These perceptions were in two folds. First, it bothered on the instructional usefulness, innovative and convenience. On the other hand, perception also helped measure issues concerning the duration of the videos, how uninteresting or boring the videos were. These lines of perception were measured on the basis of positive or negative.

Findings showed that;

Item	Positive	Negative
Instructional Usefulness	89(89%)	11(11%)
Convenience	100(100%)	-
Innovative	100(100%)	-

Interesting	100(100%)	-
Duration	59(59%)	41(41%)

From the table, it can be deduced that 89% of the students found the videos instructionally useful; 100% students found it convenient, innovative and interesting while 59% students were comfortable with the duration of the videos.

In a similar study, Devcancy (2009) discovered that all his respondents were favourable to video tutorial. 75% reported that the tutorials were enjoyable and interesting, 84.6% indicated that, it met their needs, 100% reported that they were straight forward and easy to understand, 92.4% agreed that the length of the tutorial were appropriate and 90.8% believed that viewing gave them better understanding than textbooks and guide sheets. He concluded that video is a viable tutorial tool for online courses.

Conclusion and Recommendation

From the findings of this study, it is safe to conclude that video lectures are very important mediums of teaching in today's technology driven society where the student lives, drinks and cats technology everyday of their lives. As disclosed by Woolfitl(2015) video as a medium of teaching continues to have an on-going effect on higher education, provoking debates on the traditional role of the lecturer and the set-up of delivering course content through face to face teaching. Its benefits cannot be over emphasized. Kindler (2006) as quoted by Fakunle (2008) acknowledged that individuals generally remember 30% of what they read, 20% of what they hear, 30% of what they sec, 50% of what they hear and see, 70% of what they say and 90% of what they say as they do a thing. The National Teacher Institute (2006) stated that Chinese concluded that: I hear; 1 forget, I see; 1 remember, 1 do; I understand. Hence from the illustration above, since video has to do with hearing and seeing it could be suggested that it is a vital tool of learning and teaching.

Many lecturers lack adequate knowledge, support, guidance and training to integrate this technology into their teaching, either at a practical technical level or at a didactic, teaching level (Stover &Veres. 2013). Lecturers may not be convinced of potential benefits, may be afraid of this new technology, or see no need to adapt (Reece, 2013). Sarker and Nicholson (2005) declared that for video lecture to be effective, they must be accepted and used by students. They must provide an enjoyable or at least satisfactory learning experience, be

perceived by students as providing a time-efficient study resource and / or be perceived as improving understanding and grade performance. Whatley and Ahmad (2007) stated that, for video lectures to be most effectively used by students, they should appeal to their learning style preferences. Video lecture appeals are as follows

(a) their content is 100% relevant to course performance requirements and it is presented at a more detailed pace than classroom lectures,

(b) videos can be replayed and enable students to repeat the instructor's explanation

(c) they can be viewed at a time, location and under environmental conditions of a student's choice

(d) their portability enables listening and study without the competing distractions that often accompany classroom lecture.

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