THE UTILIZATION OF EDUCATIONAL TECHNOLOGY IN TEACHING COLLEGE STUDENTS

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ABSTRACT

This study utilized the descriptive method of research. This method was most appropriate in determining the used of educational technology in teaching college students of Calinog Campus West Visayas State University, Calinog, Iloilo, Philippines. The respondents of the study were the 46 college faculty of West Visayas State University-Calinog, Campus, Iloilo, Philippines. The purposive sampling method was purposive in selecting respondents. The researcher-made questionnaire that would measure the extent in the use of educational media; it consisted of 15 items per category. The statistical tools were used to analyze and interpret the data such as Mean; standard deviation and Analysis of Variance (ANOVA). The significance level was set at .05. The findings revealed that the level of educational technology being used in teaching college students at West Visayas State University-Calinog, Campus for the school year 2015-2016 were “Very Highly Used” and when categorized as to Television “Excellently Used”; Movies “Excellently Used”; Internet “Very Highly Used” and Radio “Very Highly Used”; and their is a significant difference was shown in the extent of the use of educational technology in terms of radio and movie. On the other hand, the table showed that there is no significance in the extent of the use of educational technology in terms of television and internet.

KEYWORDS: Use, Educational Technology, Teaching, College Students

INTRODUCTORY PARAGRAPHS

The consumption of authentic educational technology materials in the form of films showing, radio, TV, and multi-media has been there for a long time. It is factual that these technologies have proved doing well in replacing the traditional teaching methodologies of teachers.

Media education is commonly called media literacy education. Its origin has a close relationship with media and technology use in education. In the early 20th century, film emerged as a tool for teaching and learning and school teachers used motion pictures as a means to teach writing to young students. By the second half of the 20th century, while work rose to popularity, high school textbooks were developed for exploring advertising, popular music and film. In the early stage, media literacy education was also understood as a “cognitive defense” against the disturbing forms of sensationalism and propaganda. Later on, this attitude changed and media educators turned to more analytical inquiry, media literacy education began to be recognized as a critical practice of citizenship [11].

Researcher concluded that the role of educational media in teaching and learning is always paramount despite the subject, class one teaches and level of learners or students. Educators have revealed that effective use of educational media materials is better than lengthy explanations. It made teaching and learning easier and more meaningful. Research has also shown that the use of various teaching media and appropriate teaching method is better than lengthy explanations. It is vital for concept formation in
learners. Besides focus on teacher qualifications and quality education, there has been debate centered on material provision. Bello [2] posited that using educational media and technology in the teaching and learning process made instruction easier and meaningful. He also submitted that the use of multi-media computer software in engineering enhanced learning by students with different learning styles. He also viewed that multi-media fill in the gaps created by dichotomy in teaching and learning styles. Some teaching/learning styles, like demonstration style, points the need for using media and technology in making teaching and learning more meaningful and a dialogue process.

Knowledge and application of instructional media were a crucial part of every teaching and the provision and effective use of instructional media and technology distinguishes a superior school from an inferior one. Oyedele, Rwambwa and Mamvutu [17] revealed that several studies have examined the availability and used of educational media as crucial in the teaching and learning process. He further observed that learners confessed that teachers’ use of instructional media in teaching/learning made them understand what was thought.

Currently, the education system had undergone rapid changes. Various new methods were introduced and used. Further, it made teaching more effective and learning is highly significant. Inevitable, the media has been dominating in all aspects of life. Every individual was surrounded by various media such as books, magazines and internet. Other than parent, it was the responsibility of teachers to help their students to become critical consumers when using the variety of media sources.

Karpudewan [13] stated that education is critical to sustain the future. It is a solution to provide information and start to change our values and behaviors.

Development of technology in education has ability to answer the questions about the impact of technology in reconstructing the education system and the use of technology, in line with learning theory. While, expanded use of computer facilities and other mass media will led to the rapid transfer of information.

Esmaelzadeh [6], concluded that often occur questions about the use of computers and it is related in aspects of teaching, the ability of students to think actively, critically and to the formation of a spirit of cooperation among students.

Kumar [14] posited that there were studies and the existence of the Technology Acceptance Model (TAM). It was a parsimonious, theoretically and empirically justified model aimed at explaining the usage of information systems. It stated that behavior is driven by the intention to use a system, which in turn is driven by the users’ attitude and perceptions of normative influences. According to the model, a teachers’ decision to use a technology is linked with the technology usefulness, ease of use, computer self-efficacy, job relevance, compatibility and subjective norm. The successful teachers need to be knowledgeable and skilled in the application of new technologies in order to extend teaching effectiveness besides enhancing positive attitudes. Kumar literature cited that it could be easily deduced that teachers use computer for teaching and learning. They used the computer to impart knowledge in the classroom, create variety, conduct activities, easily deliver their wordy explanations and instill interest in the lesson they are teaching. The computer gives teachers the confidence in the classroom as they are not looked down by their students as obsolete and old fashioned. They prove to the contemporary generation that they too know modern technology and are not left behind time [14].

According to Al-Shaibani and Daoud [1], emphasized that teachers must use thinking map for activities or active organized thinking and teachers should incorporate into their lessons to make good thinking skills lessons. Challenges and use new strategies in order to gain better understanding of the topic.

Hesson [10] found multimedia is the integration between the various media such as text, numeric, graphics, images, video, animation and sound in a digital environment, as well as has the ability to enable users to achieve interactivity requirements without the sequence. Multimedia is a combination of two or more types of media to create a sequence of programs that are effective in conveying an idea, with the assistance of both sound and visual. Moreover he concluded that the computer simulators are used in education to help students understand and comprehend specific topics. Topically, multimedia production developed and controlled by a computer.

Educational development of Jawi: Yaakob [21] found a decrease of education due to the weakness in writing skills, which no one from form five students have good control of the Jawi script. Only 56% of the students can write at a moderate level and 11.1% have not acquired the ox. While, 87% of students not using the script when writing notes and overall education of students not using the script during the examination.

Hameed [9] showed that some people believe a revolution is taking place on education, in the way people learn and the way instruction is given. Internet, multimedia and mobility usage in education process nowadays is expanding rapidly in teaching and learning.

Esmaelzadeh et al. [7] cited that the growth of technology in education has ability to answer the questions about the impact of technology in reconstruct the education system and the use of technology, in line with learning theory. While, expanded use of computer facilities and other mass media will lead to the rapid transfer of information. He added that the often occurred questions about the use of computers and it related in aspects of teaching, the ability of students to think actively, critically and to the formation of a spirit of cooperation among students.

Chen and Bryer (2012) stated that few teachers use educational media for academic practices because majority of them are ready to adopt social media portals for the delivery of course content.
Instructors are increasingly using blended formats to interact with the learners with the use of educational media tools [3].

Others, might be quick to blame the poor quality of teachers, they might also think even harder, if they have not heard of the Facebook frenzy [16]. Olubiyi (2012) noted that these days’ students are so engrossed in the social media that they are almost 24 hours online. Even in classrooms and lecture theatres, it has been observed that some students are always busy ping, 2going or Facebooking, while lectures are on. Times that ought be channeled towards learning, academic research and innovating have been crushed by the passion for meeting new friends online, and most times busy discussing trivial issues. Hence most students’ academics suffer setback as a result of distraction from the social media. It was observed that the use of these sites also affects students’ use of English and grammar. The students are used to short forms of writing words in their chat rooms; they forget and use the same in the classrooms.

Webrrawler [20] posited that educational media and multimedia technology are the channels of transmitting information to learners’ and are also those gadgets, and machines that are needed in transmitting information to learners’. There are various types of educational media and multimedia technology currently utilized in teaching and learning processes which are: computer system, microphone, mobile device, interactive whiteboard, digital-video-on-demand, online media stream, digital game, podcast and so on. Computer system relevance in the classroom allows the educators to present a new lesson, animate, present new materials, illustrate how to use new programs and show new websites. In a noisy classroom or large classes, learners will be able to hear their teachers’ instruction clearly and in the process learn better with the use of microphones.

According to Yoon & Hoon [22], in order to have effective service delivery in teaching and learning the use of educational media and multimedia technology is paramount and higher education media and multimedia technology service delivery has a great influence on teaching and learning, especially with the ready access to new technologies, educational institutions are well positioned to take advantage of these rapid changes.

The study Pew [15] suggested that something more: youths people who create and circulate their own educational media are more likely to respect the intellectual property rights of others because they feel a greater stake in the cultural economy. Both reports suggest we are moving away from a world in which some produce and many consume educational media, toward one in which everyone has a more active stake in the culture that is produced.

Researchers such as Rubens, Emans, Leinonen, Skarmeta, and Simons [18] proposed a framework for designing technology-based learning frameworks that “scaffold progressive inquiry”, provide tools for “structuring and coordinating activity”, and “support community building”. These are unquestionably important characteristics for a learning environment to possess; however, they are defined at a level above the attributes of the technologies. An environment can use the properties of technologies to construct tools that accomplish these aims, and evaluations should occur at this higher level; however, such features of a learning environment are complex manifestations of more primary technological facilities.

The methods of this recent research are not simply a contiguous sequence of stages. Jonassen, Lee, Yang, and Laffey [12] pointed out that educational designers should focus on both selecting collaborative technologies that match the pedagogy of the instruction and design instructional practices that take advantage of the technological tools. Determining technological affordances prior to considering tasks can lead to unnecessary analysis. Determining the exact affordance requirements of a task without an appreciation of the affordances availed by the technologies may mean that implementation is impractical. For this reason, simultaneous consideration of task affordance requirements and affordance availabilities is needed.

According to Gardner’s multiple intelligences theory, an individual possesses, in varying strengths and preferences, at least eight discrete intelligences: linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, interpersonal, intrapersonal and naturalistic [8]. “The relative strengths and weaknesses among and between these intelligences dictate the ways in which individuals take in information, perceive the world, and learn”. This represents a great departure from the traditional view of intelligence, which recognizes only verbal and computational ability. Gardner’s theory suggests that the manner in which subject matter is conveyed will influence that individual’s ability to learn, and that teachers need to take all of these intelligences into account when planning instruction. While traditional textbooks often take a primarily linguistic approach to learning, video’s multiple modes can take a variety of approaches, such as aesthetic, logical or narrational, in addition to linguistic, thus addressing the needs of a broader range of learners: “These ‘multiple entry points’ into the content are especially valuable in a formal educational setting, as they offer greater accommodation to the multiple intelligences of a diverse group of students”.

There are three major ways through which people take in information: visual, auditory and tactile. Silverman [19] related these three modalities to how students process information, deriving three basic learning styles: visual-spatial, auditory sequential and tactile-kinesthetic. Visual-spatial learners take in new information through visualization of the whole concept and think in holistic, often three-dimensional, images. Auditory-sequential learners, by contrast, think in words, processed auditorially, and generally learn in a sequential, step-by-step process. Finally, tactile-kinesthetic learners take in information through physical touch and sensation, and they benefit from demonstration or application more than from verbal explanations.

Callow [4] concluded that students’ intuitive understanding of such visual elements as color, salience and layout needed to be scaffolded through explicit instruction: while “many students have some understanding of visual features, this is not developed into a richer systematic
understanding, where similar concepts might be transferred to other literacy tasks.” In his review of the relevant literature, a lack of substantial research and documentation of “both the metal language of visual texts and the pedagogy for teaching about them,” indicating that this is an area where further work is required. Teaching students to become visually-literate consumers of media also develops their abilities to produce their own multimedia objects, literate as both “readers” and “writers” in a visual language. While historically, research and resources have been more focused on the development of print literacy, the development of visual literacy is in fact a means of supporting more traditionally defined literacy: the application of visual literacy skills will assist students not only “[to] critique their own visual products, but also ... to interrogate other texts to explore intended audience, purpose, emotional effect and ideological positions” [4].

Chen [5] reported that the media education is the combination of the three approaches of media literacy education, namely the protectionism, preparation (training the ability of processing and producing media messages) and media enjoyment, in recent years, nearly all 50 states include media literacy in their state curriculum standards. Hence, this study.

STATEMENT OF THE PROBLEM

This study aimed to find out the use of educational technology in teaching college students of West Visayas State University-Calinog, Campus, Iloilo, Philippines for the school year 2015-2016.

Furthermore, this study sought to answer the following questions:

- What is the level of educational technology being used by the respondents as to:
  - Radio
  - Television
  - Internet
  - Movies?
- Does the extent of technology use in education vary as to:
  - Radio
  - Television
  - Internet
  - Movies?

MATERIALS AND METHODS

This study utilized the descriptive method of research. This method was most appropriate in determining the use of educational technology in teaching college students of Calinog Campus West Visayas State University, Calinog, Iloilo, Philippines. The respondents of the study were the -46 college faculty of West Visayas State University-Calinog, Campus, Iloilo, Philippines. The purposive sampling method was purposive in selecting respondents. Before the survey was conducted, permission was secured from the University president and school administrator of West Visayas State University-Calinog, Campus, to allow teachers to be involved in this research. Upon approval, teachers included as respondents were select purposively. The school principals were requested of their utmost cooperation and assistance in the administration of the survey. They were briefed about the purpose of the study. On the other hand, all faculty members included in the study were personally approached by the researcher for the mechanics of the survey. After the respondents were identified and other arrangements were done, the researcher personally administered the questionnaires to the respondents and the collection of the questionnaires after they accomplished. The data-gathering lasted for the duration of 2 weeks. The accomplished questionnaires were checked if all the items were properly answer. The data were then summarized and tabulated using the SPSS. The researcher-made questionnaire that would measure the extent in the use of educational media; it consisted of 15 items per category. The scale of 1 to 5 was used, five being the highest and one is the lowest. The respondents were made to identify their use of educational technology.

The respondents were made to check their answers based on the guide. All answers were then tallied according to the scores obtained. The statistical tools were used to analyze and interpret the data such as Mean; standard deviation and Analysis of Variance (ANOVA). The significance level was set at .05.

RESULT AND DISCUSSION

The Level of Educational Technology Being used by the Respondents

Generally, the level of educational technology being used in teaching college students at West Visayas State University-Calinog, Campus for the school year 2015-2016 were “Very Highly Used” (M=4.46) and when categorized as to Television “Excellently Used” (M=4.60); Movies “Excellently Used” (M=4.55); Internet “Very Highly Used” (M=4.41) and Radio “Very Highly Used” (M=4.28).

The message showed in the table was clear: most (if not all) educational media means must be considered in light of technology content. With respect to development, what students watch and listen are at least as important as, and probably more important than, how much they were exposed on. In this table it further showed that the use educational technology gave an emphasis on cognitive skills and academic performance of the college students. Moreover, the results recognized the primary part media.
education plays in preparing students who would facilitate the free exchange of information and knowledge by participating and appreciating the diverse uses of technology. The free and equitable access to information and knowledge is an essential component for empowering people and ensuring their participation in knowledge societies. This is possible through a systematic teaching of technology education as part of the curriculum in schools.

Table 1: The Level of Educational Technology Being Used by Respondents

<table>
<thead>
<tr>
<th>Educational Technology</th>
<th>Mean</th>
<th>Description</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Television</td>
<td>4.60</td>
<td>Excellently Used</td>
<td>.595</td>
</tr>
<tr>
<td>Movies</td>
<td>4.55</td>
<td>Excellently Used</td>
<td>.599</td>
</tr>
<tr>
<td>Internet</td>
<td>4.41</td>
<td>Very Highly Used</td>
<td>.767</td>
</tr>
<tr>
<td>Radio</td>
<td>4.28</td>
<td>Very Highly Used</td>
<td>.714</td>
</tr>
<tr>
<td>General Mean</td>
<td>4.46</td>
<td>Very Highly Used</td>
<td></td>
</tr>
</tbody>
</table>

Legend:

- Mean Description
  - 4.5 – 5.0: Excellently Used
  - 3.5 – 4.49: Very Highly Used
  - 2.5 – 3.49: Highly Used
  - 1.5 – 2.49: Fairly
  - 1.0 – 1.49: Poor

The Significant Difference on the Level of the Use of Educational Technology

Significant difference was shown in the extent of the use of educational technology in terms of radio (p=0.000) and movie (p=0.001). On the other hand, the table showed that there is no significance in the extent of the use of educational technology in terms of television (p=0.61) and internet (p=0.064). Therefore, the null hypothesis that there is no significant difference in the extent of the use of educational media is accepted in television and internet types of educational technology but rejected radio and movie educational technology.

This means that educational technology are dispositions, libraries, and databases offer the potential for providing students with access to a wide variety of interconnected information resources. However, in order to realize this potential, educational technology should provide access to information and activities that support effective knowledge construction and learning by students. Different types of educational technology presented various advantages and disadvantages. Response and the art of questioning can be built into the presentation and learning. Specific audiences, particularly attractive to college students and educational technology scaffolded to generate interest, awareness, and excitement of college students with high status and perceived credibility.

Table 2: ANOVA Results in the Significant Difference in the Extent of the Use of Educational Technology

<table>
<thead>
<tr>
<th>Educational Technology</th>
<th>F</th>
<th>Sig.</th>
<th>Description</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio</td>
<td>11.309</td>
<td>0.000</td>
<td>Significant</td>
<td>Reject Ho</td>
</tr>
<tr>
<td>Television</td>
<td>2.978</td>
<td>0.061</td>
<td>Not Significant</td>
<td>Accept Ho</td>
</tr>
<tr>
<td>Internet</td>
<td>2.921</td>
<td>0.064</td>
<td>Not Significant</td>
<td>Accept Ho</td>
</tr>
<tr>
<td>Movie</td>
<td>7.551</td>
<td>0.001</td>
<td>Significant</td>
<td>Reject Ho</td>
</tr>
</tbody>
</table>
CONCLUSION AND RECOMMENDATION

The college faculties are technology savvy because they very highly use educational technology; the college faculties are not the same in the extent of the application of educational technology in terms of radio and movie but the same in the extent of the use of educational technology in terms of television and internet. It is recommended that the college faculties maximize the adaptation of technology in their teaching process and should continue to update themselves of the developing and evolving technology and the interventions program to college faculties may be different in use of educational technologies in terms of radio and movie but generic in the employment of educational technology in terms of television and internet.

REFERENCES