Utilization of Ict Tools in the Teaching-Learning Process by State Universities and Colleges in Caraga Region: Issues, Problems and Concerns

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Abstract

Conceptually, the study is anchored in the so-called "blended learning framework", a blend of learning theory, teaching practices and new technologies combined to provide students with rich, meaningful learning experiences that extend beyond the classrooms. The study was conducted in five (5) State Universities and Colleges (SUCs) in CARAGA Region. A Simple Random Sampling was employed both for faculty and student respondents. Frequency, percentage, and average were used to determine the descriptive interpretation of data collected in this study. This paper describes and identifies the common ICT tools used in the teaching and learning process.

Keywords: *Blended Learning Framework, CARAGA Region, Higher Education Institutions, ICT Tools, Search Engines, Teaching- Learning Process*

1. Introduction

Education is interactive and spontaneous where teachers and students work together in the teaching-learning process. Students learn through participation and interaction where homework is only part of the process. Teaching is an active process and students are not passive learners since factual information is readily available, problem solving, creativity and critical thinking is more important. Teaching – learning process is defined as a measured intervention that involves careful planning and implementation of instructional activities and teaching experiences to meet the intended learner outcomes included in the teaching plan (Barberos et al.,2017)**.** The method of integrating technology in the teaching-learning process helps teacher to efficiently deliver the lecture with practical demonstration. It helps teachers to assess an individual student's strengths and needs.

Theoretical and Conceptual Framework

A Blended Learning Network (BLN) is defined as a heterogeneous community in which people with various backgrounds and with different experiences share a common interest and work together to achieve a common goal. In BLN, participants will get to know and respect one another, share knowledge, experiences and learn from each other (Harper, 2014).

Social Media in relation to Web 2.0 Technology is patterned in the social prism of Future Works (Solis, 2008) that depicts social media as 'The Conversation Prism: The Art of Listening, Learning, and Sharing'. It tracks dominant and promising social networks and organizes them by how they're used in everyday life. Social media doesn't just encompass Facebook and Twitter; it also includes a cross section of community sites, blogs, bookmark- ing sites, photo sites, sharing tools, audio and video tools and some advanced tools that are used in conjunction with one another to have a dynamic online experience. Figure 1.0 illustrates The Conversation Prism: The Art of Listening, Learning and Sharing.
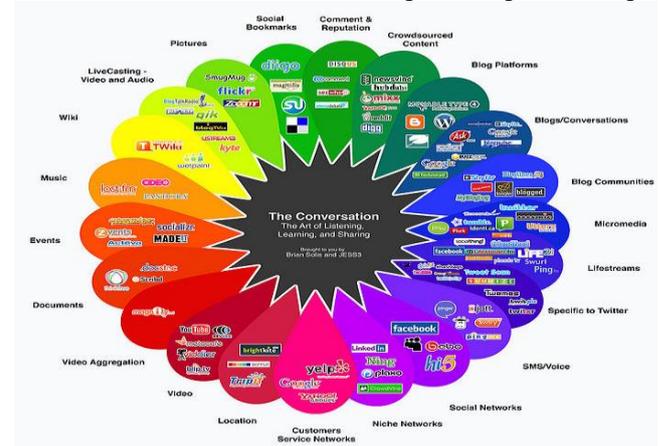

Figure 1.0 the Conversation Prism *(Solis, 2008)*

Objectives of the Study

The main objective of the study is to identify the issues, problems and concerns in the utilization of ICT Tools in the teaching and learning process by the State Universities and Colleges(SUCs) in CARAGA region.
Specifically, the study sought answers to the following questions:

1.) What is the profile of SUCs in CARAGA Region in terms of:

    1.1 Typology – University or College

1.2 Year Established as SUC
1.3 Curricular Program Offerings (e.g.
        Engineering, Info Tech, Teacher
        Education, etc)
1.4 Student Population
1.5 Faculty Qualifications and Trainings in
        the use of ICT facilities
1.6 ICT Infrastructure such as LAN/WAN
        and Internet Bandwidth
1.7 Average Computer-Student ratio during
        laboratory classes

2) What ICT Tools are highly utilized in state universities and colleges (SUCs) in CARAGA region?

3) Why do SUCs in the CARAGA region utilize ICT Tools in the teaching-learning process, in terms of:
        3.1 Ways of utilizing ICT Tools in the
        teaching and learning process;
        3.2 Extent of utilization of the ICT Tools in
          the teaching and learning process and;
        3.3 Frequency of utilization of the ICT
Tools in the teaching and learning
        process.

4) What are the perception of students relative to the use of ICT Tools in the teaching and learning process in terms of:
        4.1 Contents covered by lecture notes uploaded   in
        the platform
        4.2 Ease of understanding the contents
        4.3 Enhancing the teaching-learning process
        4.4 Maximizing the use of class time
        4.5 Appropriateness of the platform used relative
        to the bandwidth
        4.6 Reliability of internet connection

5) What are the issues, problems and concerns in the utilization of ICT Tools in the teaching and learning process?

Significance of the Study
The study would be beneficial to higher education institutions in enhancing learning and teaching in relation to Connectivism.

Scope and Limitation of the Study
The study is anchored on the Utilization of ICT Tools in the Teaching and Learning Process by State Universities and Colleges (SUCs) in CARAGA Region. Generally, it sought to identify the issues, problems and concerns relative to the use of the tools like social media network platforms in an academic perspective.

2. Literature Review

Related Literature

The importance of interactivity in learning is emphasized in modern learning theories (Muirhead & Juwah, 2004). There is a scarcity of learning aids in general. Some provincial schools lack chairs and tables, blackboards, and laboratory equipment (Committee on Appropriations, 1995).

Related Studies
Based on the study of (Chan, et, al., 2013) titled "Feasibility study of using social networks platform for learning support: an example of Facebook", collaborative learning is a type of learner and learner interaction. Using videos in teaching is not new. It was proposed that videos are effective when used to develop information literacy (Mendoza et al., 2015).

3. Research Methodology

Research Design
The study used the survey method known as descriptive research design. This design was deemed appropriate since the study employed questionnaires to gain valuable information from the participants.

Research Environment
The study was conducted in five(5) Higher Education Institutions(HEIs) in CARAGA Region. It covers utilization of ICT Tools inside and outside the classroom when students get a chance to learn lectures in a relatively risk-free setting.
The Population and Sample Size

The distribution of respondents can be gleaned in

Table 1.0.Distribution of Respondents.

SUCs	Student		Faculty	
	N1	*n1*	*N2*	*n2*
Caraga State University(CSU/ Normisist)- Cabadbaran Campus	1,682	323	112	88
Surigao State College of Technology (SSCT)- Surigao City Campus	7,210	379	172	120
Surigao State College of Technology (SSCT)- Mainit Campus	791	266	63	54
Agusan del Sur State College of Agriculture and Technology (ASSCAT)	2,391	343	120	92
Philippine Normal University(PNU)- Bayugan ,Agusan del Sur	306	173	40	36
Total	**12,380**	**1,484**	**507**	**390**

Legend:

> *N1- student population*   *N2- faculty population*
> *n1- student respondents*   *n2- faculty respondents*
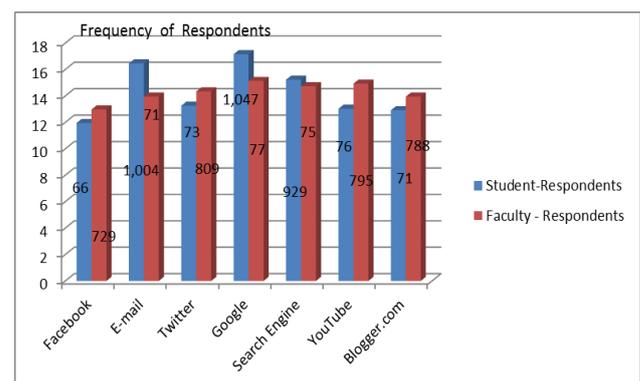
4. Results and Discussion

Figure 1. ICT Tools Utilized by Faculty and Student-Respondents

Figure 1 reveals that Google is the number one (1) ICT Tool particularly a social network platform used in teaching and learning process among faculty and students

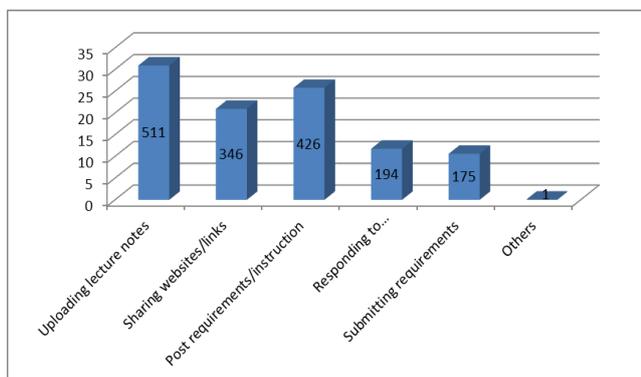**Utilization of ICT Tools in the Teaching and Learning Process**

Figure 2. Ways of Utilizing ICT Tools in Teaching and Learning Process

As shown in Figure 2, faculty respondents mainly utilize ICT Tools to upload lecture notes, post requirements or instruction for his or her class and share relevant websites or links to their students for additional references and sources of information.

Extent of Utilization of the ICT Tools in the Teaching and Learning Process
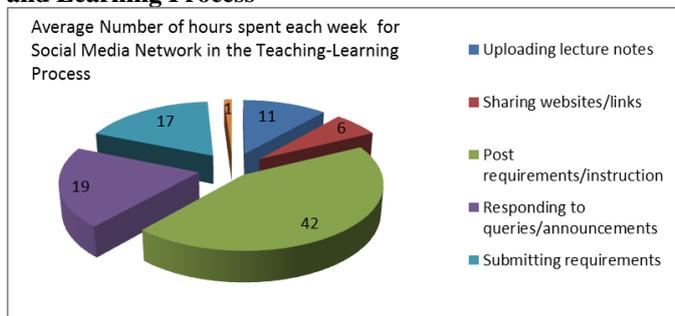

Figure 3. Extent of Utilization of the ICT Tools in the Teaching and Learning Process

Result presented in Figure 3 shows that faculty respondents spend an average of 42 hours each week to post class requirements and instructions.

Frequency of Utilization of the ICT Tools in the Teaching and Learning Process
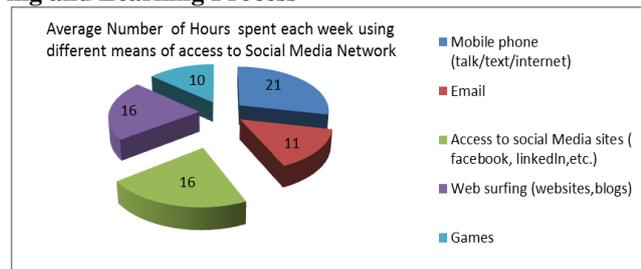
Figure 4. Frequency of Utilization of the ICT Tools in Teaching and Learning Process

Perceptions of Students on the Use of ICT Tools in the Teaching and Learning Process:
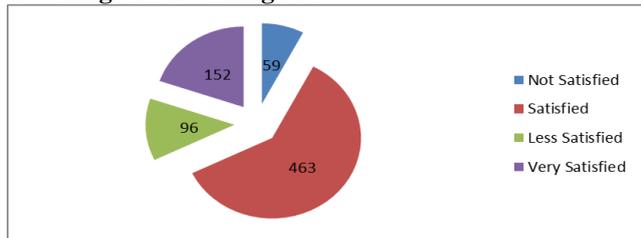
Figure 5. Satisfaction with the uploaded contents and lecture notes
There are 60% of the student respondents who said that using ICT Tools in uploading contents and lecture notes helps them to easily learn.
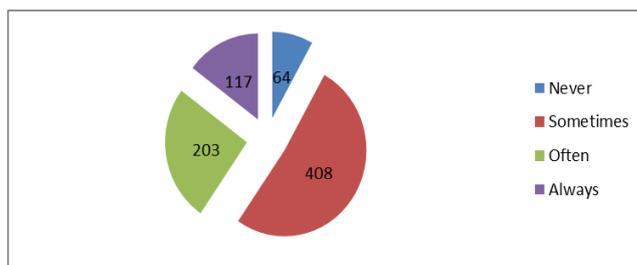

Figure 6. ICT Tools as an aide in maximizing the use of class time

Student respondents were also asked about their perception on the role of ICT Tools as an aide in maximizing the use of class time, and based on the result in Figure 6., 51% of them answered "Sometimes" meaning only sometimes but not all the time that platforms will maximize the use of class time depending on the topic and course where the tools are utilized.

V. Summary, Conclusions and Recommendations

Summary
This study aimed to ascertain the *Issues, Problems and Concerns* in the Utilization of ICT Tools in the Teaching-Learning Process of State Universities and Colleges(SUCs) in CARAGA Region.

The following presents the summary of findings, to wit:

1.   Profile of SUCs in CARAGA Region
1.1 60%(3/5) SUCs in CARAGA Region are State Colleges .
1.2 CARAGA SUCs were mostly established and recognized as SUCs within the year 1953-   1998.
1.3 Majority of the identified CARAGA SUCs are   offering Education, Fisheries, Forestry,Agriculture, Business, Engineering and   Information Technology programs.
1.4 Results of the study show that based on the respondents' personal information, most   of the student-respondents ages 15 to 29 are freshmen female undergraduate with an average age of about seventeen (17) years old.
1.5 Majority of the faculty members have attended only local trainings in the use of ICT facilities.
1.6 The study revealed that the existing schools' internet   infrastructure is more on Wide Area Network (WAN) confined to a single building or group of buildings.
1.7 Generally based on student responses , two of the identified SUCs allocates one(1) computer per user during hands-on sessions, while the other two(2) SUCs allocates one

ICT Tools Utilized in State Universities and Colleges (SUCs) in CARAGA Region
Result of the study reveals that Google is the number one (1) ICT Tool of the faculty and student respondents in the teaching-learning process.

Recommendations
Based on the findings and conclusions of the study, the following recommendations are obtained:
1.   The SUC management may come up with institutional policy that would encourage and maximize the use of existing online resources for teaching and learning among faculty members and students.
2.   The SUC management may look into the possibility of providing sufficient budget for faculty and student development, specifically national and international ICT-related trainings. If budget is a constraint, the institution may consider in-house training where experts or resource persons may be invited to save on costs.
3.   Based on the results presented on figures 1.5a and 1.5b on educational qualifications of faculty and ICT trainings attended respectively , it is recommended that

"CHED Policy: Vertical articulation of curriculum and faculty" should be given importance .SUCs must offer BS programs vertical to the Masters' degree programs being offered or vice versa.

4. The SUC management may continue to endeavor to upgrade and/or increase their ICT infrastructure/equipment to meet the ideal ratio of one(1) personal computer (PC) to one (1) student.

Acknowledgement

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