PROPOSED BLENDED LEARNING MODEL FOR CAGAYAN STATE UNIVERSITY

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Abstract: *The study aimed to assess the blended learning approach (BLA) that is utilized in Cagayan State University-Andrews Campus in the teaching of Comp 11a (Introduction to Computers). Specifically, the study surveyed the students' level of readiness in using the BLA, students' level of satisfaction on the quality of the BLA, extent of compliance of the BLA, and the proposed blending learning model for implementation at Cagayan State University-Andrews Campus. In assessing the blended learning approach, the researcher administered the survey questionnaire to the student-participants while the evaluation checklist was given to the Information Technology (IT) specialists. Moreover, the study was conducted during the Second Semester of Academic Year 2014-2015 at the College of Business, Entrepreneurship and Accountancy, Cagayan State University, Caritan Centro, Tuguegarao City. The researcher concluded that Cagayan State University, a public higher education institution is ready to implement the BLA as a means of delivery of instruction. The utilization of the BLA has been welcomed by the students with positive experience. It has been proven to be an effective approach in the delivery of quality instruction since most of the students are satisfied with it. The readiness of the utilization of the BLA was confirmed by the evaluation of the IT specialists in the level of compliance of the learning management system of the University.*
Keywords: *Blended Learning Approach, Blended Learning Model, E-learning, Flipped Classroom, Learning Management System, Rotation Model*

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STATEMENT OF THE PROBLEM

Generally, this study aimed to assess the blended learning approach that is utilized in Cagayan State University-Andrews Campus in the teaching of Comp11a(Introduction to Computers).

Specifically, it sought to provide answers to the following questions:

1.   What is the students' level of readiness in using the blended learning approach in terms of:

    a. Students' exposure to and experience on online teaching;

    b. Years in using the computer and internet outside the university;

    c. Years of using computers in school;

    d. Uses of computer/internet not related to school work;

    e. Uses of computer/internet related to school work;

    f. Skills in using the computer and internet and its tools and application; and

    g. Problems encountered by the students prior to the utilization of blended learning approach?

2.   What is the students' level of satisfaction on the quality of blended learning in terms of the following factors:

    a. Student-student interaction;

    b. Student-teacher interaction;

    c. Online environment;

    d. Face-to-face environment;

    e. Technical support; and

    f. Downloadable materials?

3.   What is the extent of compliance of the blended learning approach utilized in terms of the following e-learning components as assessed by IT Specialists:

    a. Instructional design;

    b. Technical characteristics;

    c. Accessibility features;

    d. Assessment tools;

    e. Navigation features;

    f. General design;

    g.   Audio and narration;

    h.   Fonts;

    i.   Text contents;

    j.   Graphics; and

    k.   Video and animation?

4.   What blended learning model can be proposed for implementation at Cagayan State University-Andrews Campus?

RESEARCH DESIGN

This study focused on the analysis, development, utilization and evaluation of a blended learning approach for Comp11a (Introduction to Computers). The research approach is non-experimental, qualitative and exploratory-descriptive.

SETTING OF THE STUDY

The study was conducted at the Cagayan State University–Andrews Campus, Tuguegarao City, Cagayan.

Participants

The participants in this study were students enrolled in Comp11a (Introduction to Computers) during the Second Semester of Academic Year 2014-2015 in Cagayan State University-Andrews Campus. Moreover, IT specialists were involved to critique the level of compliance of the e-learning component of the blended learning approach.

The two classes composed of one hundred (100) students were involved as participants out of the five (5) classes the researcher handled during the semester on random basis and nine (9) IT specialists were selected based on their technical expertise and experience.

Data Gathering Procedure

The researcher administered the survey instruments to student-participants of the study while the evaluation checklist was given to the IT specialists. The role of the researcher was to elicit information during the formal interview.

The researcher administered the first survey instrument to the student-participants in the study prior to the development of the blended learning approach for Comp11a (Introduction to Computers). The instrument focuses on the readiness of the Cagayan State University students to receive instruction through the blended learning approach.

On the other hand, the second survey instrument was administered by the researcher to the student-participants of the study purposely to gather their responses on their level of satisfaction on the blended learning approach. The instrument was administered after the utilization of the blended learning approach.

Furthermore, the evaluation checklist was administered to the IT specialists to collect their responses on the extent of compliance of the e-learning component of the blended learning approach with the commonly accepted characteristics of a good e-learning environment as utilized by the student-participants of the study.

Lastly, a formal interview was conducted by the researcher to gather additional information and validate the responses of the IT specialists on the level of compliance of the e-learning component of the blended learning approach.

Data Analysis

Data analysis means to organize, provide structure and elicit meaning. Analysis of qualitative data is an active and interactive process (Polit et al, 2001). Data analysis commenced after administering the first survey instruments and the result was used as basis in the development of the blended learning approach for Comp11a (Introduction to Computers) while the succeeding data analyses were performed after the administration and conduct of the second survey instrument and evaluation checklist, respectively.

The researcher comprehended, synthesized, and theorized the data and information gathered. Significant statements that pertain to the subject of study were extracted. Statements which were used to formulate meanings were organized into clusters. The researcher also returned the description to the source for confirmation of validity.

Data were treated using descriptive statistics such as frequency count, percentage and weighted mean. In this study, meanings were formulated from extracted statements and then clustered into themes to provide full meaning of the results. The participants were consulted to ensure or confirm the credibility of the description.

The following Likert Scale and descriptive interpretation were used as basis for the interpretation of the results and findings:

Likert Scale and Descriptive Interpretation for the student's level of readiness in using the Blended Learning Approach

Mean Range	Descriptive Interpretation
4.20-5.00	Very high extent
3.40-4.19	High extent
2.60-3.39	Moderate extent
1.80-2.59	Low extent
1.00-1.79	Very low extent

Likert Scale and Descriptive Interpretation for the level of satisfaction of the students as a measure of quality of blended learning approach

Mean Range	Descriptive Interpretation
4.20-5.00	Very high extent
3.40-4.19	High extent
2.60-3.39	Moderate extent
1.80-2.59	Low extent
1.00-1.79	Very low extent

Likert Scale and Descriptive Interpretation for the extent of compliance of the E-learning Component of the Blended Learning Approach with the commonly Accepted characteristics of a good e-learning environment

Mean Percentage	Descriptive Interpretation
90%-100%	Very great extent
80%-89%	Great extent
70%-79%	Moderate extent
60%-69%	Little extent
50%-59%	Very little extent

SUMMARY OF FINDINGS

This research study presents the following findings in relation to its primary aim to assess the readiness of the Cagayan State University in using the blended learning approach.

I.   Students' Level Of Readiness In Using the Blended Learning Approach

1. The student-participants have moderate level of experiences and exposure in the use of technological gadgets.

2. The student-participants have reasonable number of years of exposure to the use of computers and internet outside the Cagayan State University.

3. Before their entry to the Cagayan State University, the student-participants were already moderately exposed to the use of computers and internet.

4. Aside from school work, student-participants are also using the computers and internet for various reasons. Foremost of which is the practice of searching different sources online for information and learning about a particular topic of interest.

5. Student-participants also used the computer and internet at a moderate extent in doing their school work. Using the computer and internet in doing homework is the most prevalent, while the least practiced is to send email to their teachers.

6. The student's level of skills in using the tools and applications in the computers and internet was rated at a moderate extent. The use of the "word processing program" and "editing digital photographs and other images" were the most utilized programs. These programs are the most basic tools in the computer.

7. There were various problems encountered by the student-participants prior to the implementation of the blended learning approach in the University but were not extensive as perceived.

II. The Level of Satisfaction of the Student-Participants to the Blended Learning Approach

The level of satisfaction of student-participants in this study was determined through the following quality measures:

1. The student-participants interaction among themselves and other students relative to blended learning approach was rated positively at high extent.

2. The students' interaction with the teachers reveal an even more cordial and comfortable relationship as perceived by the participants. The resulting over-all weighted mean indicates a very high level of satisfaction.

3. The student-participants have very positive impression of the University's online activities.

4. The face to face method of learning with their teachers also revealed a highly positive indication of good quality measure of the University's blended learning approach.

5. The technical support provided to the students was perceived to have been attained at a high extent.

6. Accessibility of downloadable materials was also perceived to have been provided at a very high extent.

III.   Extent of Compliance of the E-Learning Component of the Blended Learning Approach with the Commonly Accepted Characteristics of a Good E-Learning Environment

The extent of compliance of the e-learning component was measured through the following indicators:

1. These features of the e-learning component of the blended learning approach were perceived to be conforming to the standard characteristics at a moderate extent: instructional design of the e-learning, accessibility, navigation, and text contents.

2. The following characteristics of the e-learning component were perceived to conform at a moderate extent with a rating of 78% each:

    2.1.   Technical Characteristics

    2.2.   Assessment Tools in Measuring Students' Performance

    2.3.   Audio and Narration

    2.4.   Graphics

    2.5.   Video and Animation

3. The general design was seen to be conforming at a great extent.

4. The characteristic of the font was perceived conforming at a very great extent.

CONCLUSIONS

With the findings of this study, the Cagayan State University, a public higher education institution, is ready to implement the blended learning approach as a means of delivery of instruction. The utilization of the blended learning approach has been welcomed by the students with positive experience. It has been proven to be an effective approach in the delivery of quality instruction since most of the students are satisfied with it. Said readiness was confirmed by the evaluation of the IT Specialists in the level of compliance of the learning management system of the University.

RECOMMENDATIONS

In view of the findings of the study, the following recommendations are offered:

1. Like many schools or universities, the Cagayan State University faces challenges as it takes steps to transform or enhance its delivery models to create greater access to quality education and deepen student learning, while integrating use of technology.

The researcher believes that the University's plan for blended learning should be closely aligned with its technology infrastructure, other resources and its improvement planning process. As such, the researcher is proposing the model utilized in this study;

2. For Cagayan State University to adopt or institutionalize blended learning program or approach to maximize both human and technological resources available;

3. For Cagayan State University to encourage the faculty members to develop syllabus using the blended learning approach;

4. For Cagayan State University to constitute a committee to review or assess blended learning program or approach developed by the faculty members;

5. For Cagayan State University to develop a plan to boost the existing number of equipment and facilities to cope up with the demand of the increasing number of students.

6. As to the extent of compliance of the E-learning component of the blended learning approach, the following area need to be further enhanced:

    a. Instructional design;

    b. Technical characteristics;

    c. Accessibility features;

    d. Assessment tools;

    e. Navigation feature;

    f. Audio and narration;

    g. Text content;

    h. Graphics; and

    i. Videos and animation.

7. A Rotation Model, particularly flipped classroom type is also recommended. In this model, the students rotate on a fixed schedule or the instructor's discretion between learning modalities, at least one of which is online learning. Further, students are encouraged to participate in online learning off site in place of traditional homework and attend the traditional learning environment.

8. A longitudinal study may be conducted to assess the effectiveness of the blended learning approach.

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