CICS COMPUTER-AIDED EXAMINATION OF CSU AT LAL-LO

Mark Anthony B. Abarca*Cagayan State University Lal-lo Campus Lal-lo, Cagayan

ABSTRACT:*This study was conducted to develop a Computer-Aided Examination System of the College of Information and Computing Sciences of Cagayan State University at Lal-lo. This system supports the institution to conduct examinations fast, produce instantaneous but reliable results, reduce effort in validating and checking answers and transform traditional process of examination into a paperless exam through this multiple choice based examination. This proposed study used the systems development and design type of research. Internet technology was used to gather information that scaffold them in developing the proposed system. Oral interview was also used in identifying the problems encountered by the CICS faculty and students during examination period. Faculty problems during written examinations are: dishonesty of students, erasures and unreadable handwriting of some students. Students' problem during written examinations are: no ball pen, no paper and they are sometimes forced by their friends to show off their quiz paper. These problems make the results of traditional examinations unreliable thus, the researchers developed this computer aided examination system to address these problems. The Computer Aided Examination system was developed using Visual Basic 6 and MS Access.*

KEYWORDS: *Computer Aided Examination, Traditional Examination, Visual Basic 6, MS Access*

INTRODUCTION: Nowadays, computers have infiltrated all aspects in the society. They are most likely one of the great technological mechanisms for the increase of human productivity and advantages. Computers became very beneficial to everyone, that's why people now are also adopting various computer software that can make their works easier and faster.

One of the computer software that is widely used by Educational Institutes in hosting online/offline program-based examination is the Computer Aided Examination system. With the use of this system, institutes can have a rapid and error free mode of examination that gives optimum results in a matter of minutes. This examination software is coded in such a way that it would contain the correct answers for each of the questions to provide perfect

evaluation. Once this is done, scores are provided to the institute by the system in a short period of time without the help of professors in analyzing the answers to each of the questions.

The proposed Computer Aided Examination System for the College of Information and Computing Sciences at Cagayan State University at Lal-lo is a multiple choice-based examination which would be implemented in a Local Area Network (LAN). This system was developed using Visual Basic 6.0, where the forms of the proposed system were created and programmed. MS Access 2010 was also used as the database of the proposed system. Photoshop application in editing images needed in the system was also utilized. This Computer Aided Examination system would help the College in achieving fast and error free process of conducting and evaluating examinations.

OBJECTIVES OF THE STUDY

General Objectives:

To assess the manual system of the College of Information and Computing Sciences at Cagayan State University Lal-lo in giving and in conducting examinations and improved it through computerization.

Specific Objectives:

1. to improve the manual system of retrieving and storing scores of students;
2. to reduce time in processing the examination of the students;
3. to speed up the level of checking test papers;
4. to eliminate errors in checking test papers.

RESEARCH METHODOLOGY

The creation of this Computer Aided Examination was based on six steps of Design Science Research (DSR) for Information System (IS).

Problem Identification

Problems in administering, checking and recording of examination results were identified through a series of interview to the faculty and students of the College of Information and Computing Sciences (CICS).

Objective Definition

Theeffectiveness of the study was defined based on the problems identified. As a result, a Computer-Aided Examination which aims to improve the manual system of processing examinations was developed.

Requirements Analysis

The researchers analyzed the requirements based on the identified problems and the objective, then created the design of the derived interface and functionality of the system which involved modelling and flowcharting. The researchers developed each feature of the system which involves programming or coding and preliminary testing, and integrated all the features for testing and for deployment.

Implementation

The researchers delivered the finished system for production or use. It involved end-user training and support, management of change, and data conversations. The researchers also conducted experiment or testing and series of refinement to minimize or eliminate unnecessary inputs.

System Evaluation

The CICS faculty members evaluated the functionality and impact of the CAE if it meets the requirements and the objective of the study. After evaluating the system the faculty of the said college approved the system to be used in the college.

System Documentation

The researchers made the availability of the pages to provide information about the importance of this system, its capabilities or features and its uses.

ESULTS AND DISCUSSION

This study was conducted to develop a computer aided examination (CAE) that can be used to improve and computerize the existing system of giving and checking examinations, as well as in recording examination results.

This computer aided examination lessened the time and effort in giving and in checking examinations while producing instantaneous and reliable results.

The Computer Aided Examination system is far different from the manual system used by the teachers in giving and in checking examinations. Since the system runs into a computer unit connected to Local Area Network (LAN), the teacher can just create

examination in a single computer unit (server) which can be accessed by the students in the available units (clients) connected to the network. The system can immediately generate report of students' scores that can be retrieved by the faculty.

This system also produces instantaneous feedback to the students regarding their performance in their examination by immediately showing their scores after submitting their answers in the system. This system does not require anymore the students to bring their papers and pens to take their examinations.

This system also offers excellent security when it comes to the examinations created by the faculty since it does not allow unauthorized person to access the system and make changes or any actions on the data stored in the system since it is encrypted with password. The system also minimizes leak of examinations among students since there are no printable test paper in the system.

CONCLUSION

The Computer Aided Examinationcertainly transforms the traditional written examination into a paperless examination. It also minimizes time and effort in obtaining and recording the students' examination results.

Implementation of the system provides instantaneous feedback to both students and faculty on the result of examination. The developed system ensures an innovative, convenient and reliable process of evaluating students' performance.

RECOMMENDATIONS

Full implementation and utilization of the developed Computer-Aided Examination system is recommended in order to transform the traditional written examination into a paperless yet reliable process of giving examinations.

Future researchers may conduct further studies to improve the features and processes of the proposed study. Since this system is exclusive for the College of Information and Computing Sciences, future researchers who will conduct study parallel to this, may considerfeatures of Computer Aided Examinations that can also support other types of examinations for all the Colleges of Cagayan State University at Lal-lo.

REFERENCES

Aniket, J., Chetan K., Sumeet, P., & Kruti W. (2017 April). Computer Aided Examination System. Retrieved on September 8, 2017 from https://www.irjet.net/archives/V4/i4/IRJET-V4I4522.pdf.

Paguirigan, J. (2015) Proposed e-HRM System for Isabela State University. SPUP Graduate School Research Journal, Vol. 14, No.1.2016.ISSN 2012-2551.

McManus, J. (1999). Database Access with Visual Basic 6 (ISBN: 0-672-31422-3.

Moursund, D. (2005). Introduction to information and communication technology in education.University of Oregon, USA. http://uoregon.edu/%7emoursund/Books/ICT/ICTBook.pdf.

Gillard, J. (2008). The importance of being digitally engaged. Information Age, Dec08/Jan09, 56-59. [verified 15 Aug 2009] http://www.acs.org.au/iage/ia200812-01.pdfG.

Fluck, Andrew & Pullen, Darren & Harper, Colleen. (2009). Case study of a computer based examination system. Australasian Journal of Educational technology. 25. . 10.14742/ajet.1126.