BINDURA UNIVERSITY OF SCIENCE EDUCATION

Faculty of Science Education



**Online** **Examination Management System**

**For**

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# **Proposal**

## **Introduction and Background**

As a result of the development of Internet technology, online examination has become an effective complement to traditional examination. It is a common knowledge that students are extremely prone to cheating under the traditional method, which could affect the fairness of examination. The pen and paper method of writing examination, which has been ongoing for decades, may not be pleasing for use because of the problems usually associated including examination venue capacity constraints, lack of comfort for examination candidates, delay in the release of results, examination malpractices, cost implication of printing examination materials and human fault (Fagbola T. M., 2013). The shift of examination as well as examination administration procedures from paper-based to information technology based processes necessitates substantial reorganization processes at universities. Administrative staff, IT support staff, teachers and examiners as well as students have to adapt to and familiarize themselves with new examination practices known as online examination (Wannemacher K, 2008)

An online examination system is an application that allows an institution or school conduct examination via the Internet (or intranet). Various school, institutions and organizations have opted for this method of conducting examinations, because it is quicker, easier and convenient. This system makes it easier for examiners to conduct exams and collate results. The application provides facility to conduct online examination anywhere and at any time. Today, most institutions are conducting their exams online to eliminate the bottlenecks associated with pen and paper type of examination. Technology has supported online examinations successfully for a number of years, and has progressively enhanced the process over the years to have room for more students and ensure a smoother online examination. However, one of the biggest challenges to online examination is cheating using technology.

Several researches exist that are related to the work reported in this paper. The study in (Rahman M, 2013) developed an online examination system that allows for creating a test from the question bank of the system and conducting Academic and Non-Academic examinations in English as well as Bangla. Similarly, (Fagbola T. M., 2013) developed a web-based online examination system to address some drawbacks associated with pen and paper method of writing examinations. The study in (Jantschi L, 004) explored the development of Multiple Choice Examination System and Online Quizzes for computer studies. The paper presents the main aspects and implementation of an online multiple choice examination system with general computer studies issues for student evaluation. Security issues were also examined by some studies. For instance, in a paper reported in (Abdulhamid S, 2014

## **Investigation and description of current system and Literature Review**

Rujeko High School the examination system is being done manually whereby every term every teachers is set examination questions for each subject manually and submit to the head of the department (HOD) for approval. The manual system is time consuming as teacher has to find past exam papers to find questions. This type of system brings repetition of questions in every term and pupils will not improve academically. Also there is a lot of paper work for printing question papers for about ninety students and calculations are involved and more mistakes are made at the end of the exam and there will be no accuracy.

The system that is being used now has the following advantage:

* Employees do not need any computer skills to run the manual system

The system that is being used now has the following disadvantages:

* Too much paper work as it requires lot of stationery.
* Misplacement of some of the examination as there will be lots of paper work done on preparing of exam.
* Miscalculations of marks since the calculations are done manually.
* Time consuming especially in setting exams.

## **Statement of the problem**

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## **1.4 Objective of the study**

* To design an automated online examination system that is able to randomly generate examination questions for a specific subject.
* To manage the Exam Bank by removing outdated questions and avoid picking same questions
* Instant generation and management of examination questions

## **1.5 Scope of the study**

* Online Exam system is designed for Educational Institute (like school, colleges and training center.).
* The system handles all the operation and generates reports as soon as the test is finish. The type of question are multiple choice and true or false.
* The study will focus primarily on Rujeko High School in Glendale

## **1.6. Description of the proposed system**

The Online **Exam System** will be designed and developed for the **Educational Institutes** like Schools, Computer Learning Centers, Tutors, and Collages. The backend script will be written in **Laravel framework or Code Igniter which php framework** and it will help students to take Exams Online with all the features that they need. The main or major part of the Application is **Admin Control Panel**. By using this one can control the whole system as **Administrator**. Here Admin can do a lot of stuff Like Add Student, Set Exam Name or Course Name, Set Exam Timing, Set Questions and Answers, Manage Admin Users, Generate Auto Results and reports and generate graphs. The **Student Exam Panel** in short. Here students will give their Online Test or Exam.  To access this Exam Panel the Registered Students will have to log in with their valid login credentials. The system will verify to check if student is registered, then if he or she is not the system will not redirect you to exam panel. It will also check for fees payment. If student has an outstanding balance the system will no display examination panel.

**The Proposed System is very beneficial to the user because of the following reasons.**

* This helps to get rid of from pen and paper work.
* This helps to decrease redundancy, which is in the file system.
* School’s efficiency and effectiveness will increase because this will give the quick and accurate output of the user’s choice.
* Accuracy will be increased because school can use the efficient information provided by the system at right time and can take effective decision for the betterment for future of student
* Time can be saved which can be utilized in some other needs

The proposed system is real time processing system. It updates the database when any transaction is submitted to the system. Due to this the master file is always up-to-date, so no problem to the user

**The disadvantages of the proposed system:**

* The school will incur an extra cost on the electricity bills due to computerization of the online examination system.
* All staff must be computer literate
* Lots of computers will be required to on examination.

## **Feasibility study**

It means to carry out the detailed study of the existing system, find out the problem related to technical, operational staff, and economical field like cost by concerning the user of the study proposal of the proposed system (i.e. creditor ledger) is accepted by the management it will lead to the investigation of the existing system or problem area. Having recognized the problem, the next step to carry overall analysis of the system requirement in terms of it’s:

* The input data
* Type of processing needed
* The output

**Three phases of the feasibility study is used**

**Technical feasibility**

It is concerned with the available hardware and the software resources whether they meet the given requirement of the analyzed system or not which include latest machinery and the technique required handling the system. It may also invoke the study of the new alternative to solve the given problem.

**Behavioral Feasibility**

People are inherently resistant to change, and computers have known to facilitate change. An estimate should be made of how strong a reaction the user staff is likely to have toward the development of a computerized system. It is common knowledge that computer installations have something to do with turnover, transfers, restraining, and changes in employee job status. Therefore, it is understandable that the introduction of a candidate system requires special effort to educate, sell and train the staff on new ways of conducting business.

**Economic Feasibility**

It deals with the study of the cost benefit analysis. All the cost of the new system compared with the benefits, which can be obtained for management approval. The benefit may be quantities in nature Current System Summary. The genuine consideration of the system being developed is the approach we follow to look the system in the way it is useful for us.