

Brainq An E-Learning Applications

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Abstract: *Most universities in India face many educational problems and obstacles that technology can help to overcome. In an IT and software industry, new and improved technologies are always on the rise. And when talking about education there has always been a speculation of how can we use the format of applications to benefit the educational field. Also using these for commercial purpose has always been upfront. We have to keep ourselves updated with the ongoing demand, in order to develop an effective product for commercial use. We have a more crucial role to play to ensure an application's efficient working, as almost all of the books and exam, today, is online. This paper shows that the use of interactive features of e-learning increases the motivation of the undergraduate students for the learning process.*

I. Introduction

Web-based learning is used nowadays as another option to face to face education. As a matter of fact, its use increases in a direct proportion with the increase of the number of students. This has made educators exert a lot of effort to help the learners to get interactive content that is full of multimedia as it has been proven that it has a significant effect on the process of learning. The impact of blogs and wikis has also been investigated on learners' collaboration and reflection and it was reported that they both have a positive effect.

E-learning has been introduced as a tool in the learning process in the majority of the international universities worldwide. The term "e-learning" is defined by as "any learning that involves using internet or intranet." A year later made the definition more generalized by indicating that it is "anything delivered, enabled, or mediated by electronic technology for explicit purpose of learning". According to "e" in e-learning should not stand for electronic; it should be an abbreviation for "evolving, enhanced, everywhere, every time and everybody." In fact, the quotation of shows most of the advantages of e-learning for learners and instructors.

Although the e-learning term and tools do exist for over a decade, the educational research field has not given enough attention to the study of student motivation under the effect of e-learning. E-learning has grown in significance as an educational tool just like technology has developed and progressed over the years. Interestingly, there have been more efforts at advancing technology than on attempting to understand the needs and learning styles of individual learners and instructional design. The 21st century has seen rapid progress with such things as the Internet and online learning.

The increased use of e-learning among educational institutions has led to a change in higher education. According to findings, there has been a rise of about 12-14 percent annually in enrolment for online learning over a five year period: 2004-2009 after secondary education . One of the main reasons for this is it gives students' greater access to education in comparison to traditional methods of teaching as students can undertake their study from anywhere and at any time as well as being given the option to study part-time or full-time. E-learning has transformed the educational sector by enabling students to share information and data in a relatively easy way.

II. Motivation

Recent studies indicate that university students who have been enrolled on e-learning courses outperform those being taught on traditional courses. An example of this can be found at Carnegie Mellon University (CMU) in America where student exam results have shown improvement as a result of e-learning techniques . It is therefore imperative that an education system is created which is capable of rapid adaption to its technological, social, cultural and political environment.

Incorporating technology in the learning process does not necessarily guarantee motivated students. In fact, online instruction has resulted in the student teacher relationship becoming less personal. Teachers are required to turn the classroom into an online environment. The question is what exactly is required of teachers to motivate students in an online environment?

It is essential for teachers to understand their students' motivations. Although students take online courses with the intention of successfully completing them, they tend to fail for a number of reasons. The success or failure of online instruction is perhaps related to student motivation. To stimulate students, teachers

should :

1. keep in mind that motivation must be natured in students.
2. explain to their students how the online environment may be used.
3. encourage interaction and collaboration among their students.
4. build study groups so that students will no longer be studying in isolation.
5. help students to make friends by meeting fellow students in the online environment.
6. interact with their students by monitoring the online presence of them and supplying them with continuous feedback..

III. Research Hypothesis

The main objective of this study was to measure to what extent using the interactive features of e-learning increases the motivation of undergraduate students for the learning process. The significance of this study is that it raises the awareness of academic staff to the importance of using the interactive features of e-learning as an important asset in teaching adult students.

In this study five research hypotheses were examined to determine which hypothesis should be accepted and which should be rejected.

H1: Students will show preference towards online activities as opposed to the traditional method of learning.

H2: Students will show a difference in attitudes towards e-learning based on the students' degree year.

H3: Students will show a difference in attitudes towards e-learning based on the students' faculty.

H4: The exam score will influence the preference to online rather than the traditional approach

H5: The teacher has an impact on the students' willingness to use Web-based exercise

In this study, the p-value has been used to test the above hypotheses. P-value is a probability statement which answers the question: If the Null Hypothesis is true, then what is the probability of becoming aware of the test statistics at least as extreme as the one observed. A p-value of 0.05 or less rejects the null hypothesis 'at the 5% level' that is, the statistical hypothesis used suggests that only 5% of the time would the supposed statistical process to come to a finding to the utmost if the null hypothesis were true. 5% and 10% are common significance levels to which p-values are compared.

IV. Studies & Evaluations:

This study investigated H1, H2, and H3 and was conducted with students in the English department at the (BUE). It is important to note that all students in the different departments and faculties at the university are required to take English modules alongside their degree area modules.

The students were given two different exercises, namely Web-based Interactive and Paper-Based. The students were asked to answer both exercises at home in a two week period successively. They were informed that the exercises were not graded. The two exercises were balanced in terms of difficulty, number of questions, question types and the time given to answer each exercise.

Next, the students were given a questionnaire survey to complete. The questionnaire survey was adapted from Cheng (2006) and contained twelve questions with five different scales. The students were asked to choose one option of (Strongly Agree=5 points, Agree=4 points, Neither Agree or Disagree=3 points, Disagree=2 points, Strongly Disagree=1 points) for each question.

The questionnaire survey assessed the students' willingness to use e-learning and to measure attitudes towards e-learning for some specific modules. Table I presents the questionnaire survey used in the study.

Students were also asked to choose between two sets of paper-based and web-based exercises, to solve in class, then to answer a questionnaire. Of the 159 students who participated in the study, 124 questionnaires were completed correctly and used in this study. The students who participated in the study were from the Faculties of ICS, Engineering, Political Science, Business, Pharmacy, and Dentistry. Students were in the preparatory and first year. For H1, the results revealed a significant difference between the students who had chosen web and paper-based exercises for answering questions 1, 6, 7, 8 and 9 ($P < 0.05$)

TABLE I.
THE QUESTIONNAIRE USED IN THE STUDY FOR THE
ENGLISH MODULE

Q1	I like using e-learning for English modules
Q2	I think the teacher's application of e-learning in teaching English modules helps me improve my skills in English
Q3	I think the teacher's application of e-learning in teaching English modules is not useful
Q4	I think my grades will improve by using e-learning for English modules
Q5	I find English modules easier when the teacher uses e-learning in teaching
Q6	I hope teachers of English continue to use e-learning in their teaching
Q7	Using e-learning for English modules is more interesting than the traditional method
Q8	E-learning make me more interested in learning English
Q9	By using e-learning for English modules, the opportunity of interaction with the teacher is enhanced
Q10	By using e-learning for English modules, the opportunity of interaction with my classmates is enhanced
Q11	Using e-learning for English modules encourages me to continue learning on the Internet by myself
Q12	I am unwilling to learn English modules through using e-learning

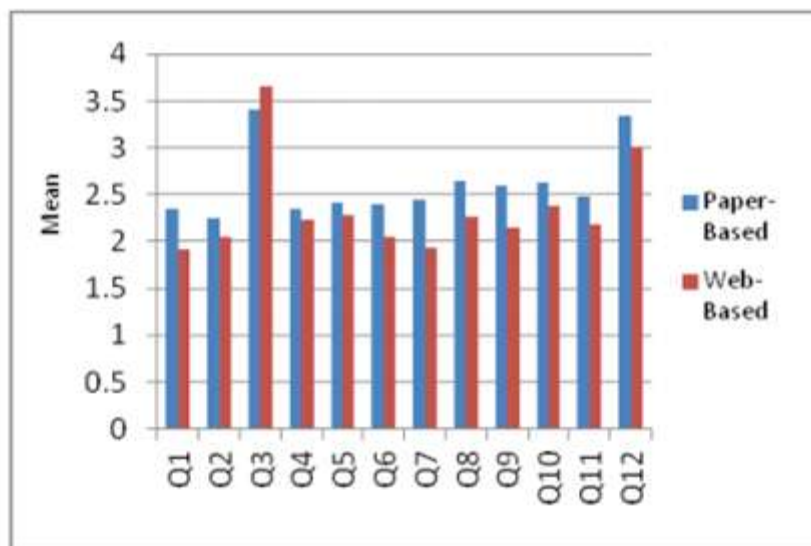


Figure 2. Mean value for the paper-based and web-based questionnaires

V. Methodology

To improve the application's Interface and its quality by making it more user friendly and easy to use. To improve its content.

To let the registered users record their history or bookmark their content into their respective account data. To introduce the concept of Augmented Reality to make the application more responsive and interesting. To provide the sense of competition in the Test Series by providing the All India Ranks to the test givers.

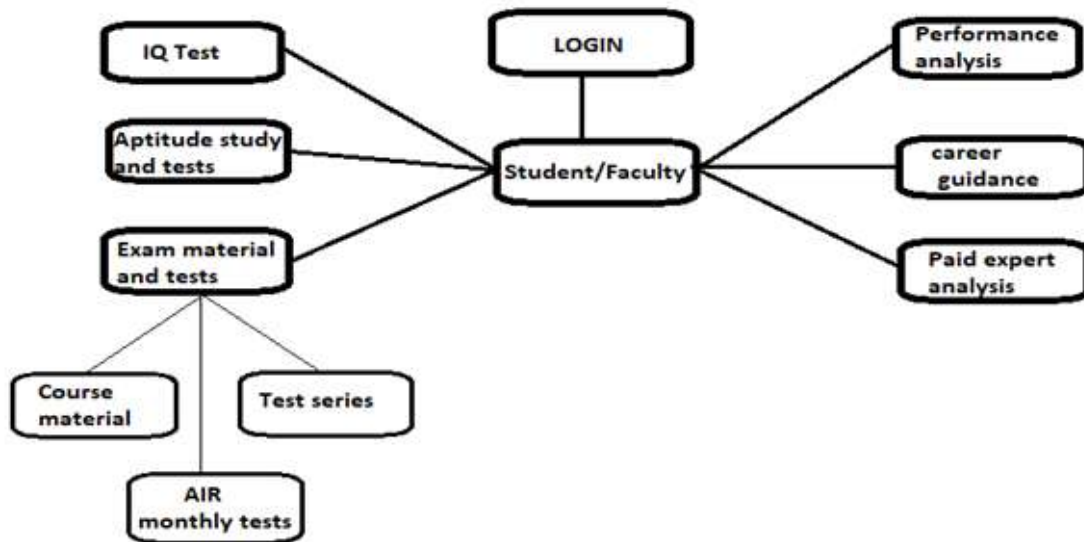


Fig. Functional Diagram

- Creating login id using google mail or facebook
- Links to various courses available online and application guidance to offline courses that are certified from various reputed institutes.
- Local data implementation for storage
- All India Rank using Google leaderboard sdk
- Payment Gateway using Citrus

VI. Conclusion

Thusthis project is helpful for students to practice different mock examinations from this app. In current generation lots of the examinations like GRE, CAT, MAT, GATE etcis conducted through online system. This project will help students to get practiced to online examination method by taking mock tests from this application. Online examination portal is implemented in 2 modules student examination module and examination admin module. admin module will add multiple courses under different branches so students can easily know about test details. In student examination module students ought to register with application and choose interested courses and participate in the online test.

We have an introduction to the IQ test and an Aptitude Test in our application. So we have a package of online assessment, IQ and Aptitude test in one single application.

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