

A COMPREHENSIVE STUDY ON E-LEARNING PORTAL

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Abstract – This paper aims to establish a better relationship among teachers, students, and parents. Here, I integrated the correlation between teacher, student, and parents. A web-based online learning portal defines components that make up an online learning system more effective than face-to-face interaction. Users can use this application at any time and from anywhere with an authentic email and password to access the application. They can avail themselves courses according to their standard when they are getting free according to their respective busy day. Here is no restriction to the repetition of courses they can go through with the subject as a user can. I also included here some study material like a presentation, videos, and handwritten notes for better understanding and interaction with students. The Teachers can communicate easily with students by comment. by comments students who have the same doubt, they do not repeat the same question to faculty regularly. so time conservation will happen in this scenario and the teacher also not get irritated with the student. there is a very good and attractive material that provides users easy to understand and more engaging. web service is secure and personalized with login credentials. The web application is designed user-friendly with interacting UI/UX design there is no hidden feature users can easily access this web portal. there is very faster and more effective communication between students and teachers and all students monitor that conversation by this feature students never ask the same doubt from teachers.

Key Words: Database, Django, Online learning, Python Framework, SQLite, Web Security.

1. INTRODUCTION

Online learning is popular nowadays. within the recent years during covid, it has had a major impact on education and started a new trend towards digital learning. in covid government decided to shut down all the institutions due to that online learning in touch the hike. It is also now in trend for small children they can't move towards institution during covid. educational institutions (schools, colleges, and universities) had followed traditional methods of learning, that is, they follow the face-to-face lecture in the classroom. after arising of COVID-19, all the situations were changed. WHO (world health organization) declared COVID-19 as a pandemic. The government announced the shutdown of all the educational institutions. after that all students were fully dependent on online learning, they enrolled in some online learning courses. due to this online learning get booming. But in online learning students do not get the proper notes and concepts through videos only and if they will make notes

then it will be more time-consuming. the demand arises rapidly for online learning with notes and effective learning materials. according to a survey in one month two crores' courses were enrolled on only the government online learning website. Face-to-face learning was more effective in recent times but now e-learning is better than face-to-face learning. because online learning is more active and asynchronous. Here students will get textbooks, supplemental materials, as well as online discussion, coursers' announcements, quiz competitions.

2. Online learning strategy

It has become very difficult and time-consuming for students to learn a new chapter from pre-written notes.

Most of the time if any student goes into the portal they are not able to get a concept also he/she gets confused. due to this, my portal includes video lectures, pre-written notes, and written notes like how teachers wrote on board they can get easily there.

The to a lot of subject's activities and other curriculum activities students are busy they want to cover chapters smartly and want to spend fewer time due to lack of time they want to learn as soon as possible. this is a common problem that has been observed in almost every student from my survey.

The problem does not only impact the student, but it will affect our country also a lot of unemployment is happening in today's era only due to lack of education. according to a survey in the village area, there is a lack of teachers and those who are there mostly haven't a good technique of teaching. From this portal, students can get good knowledge about subjects and also updated in today's era and also, they can qualify for the competitive examination. This portal saves time as well as money for students. They do not need to spend thousands of rupees on coaching classes.

3. LITERATURE REVIEW

The models that are not separated from the known technology or system and the participant feature quoted in the research literature. structural equation modeling provides better model support which is believed to have a strong systemic impact to be applied described in [1]. The main purpose of the system design leads to better retention of students and is a consistent learning method. Models incorporate determinants from well-established

technologies for students to learn and apply new processes or knowledge in the workplace.

The design of the experience, awareness, and implementation of the e-learning project is included in the student education portal called "eLearn central". The author focuses on the quality of e-learning lessons. The model-based curriculum is designed to improve user-friendly applications i.e. students can easily use and learn individual learning styles, which are customized geographically[2]. The author takes the study of "Multimedia Implementation" as an example. In a Moodle-based education program: by analyzing information or recording information. Targeted learning functionality that students are use effectively or simply and according to the needs they have customized.

The model for the Indian education system using BLMM for improvement. Here he explains about MOOC (Massive Open Online Course). MOOC is in trend nowadays on the internet. This allows the learner to improve their skill. the data in BLM computer model analysis the output data is used to accomplish BLM analysis[3]. Comparison of these values derived from the model has repeatedly been found to be comparable to the results of lethal tissue concentrations from acute toxicity tests. BLM model work on past output. It learns from history output then it will implement on the future output.

The model has been tested using PLS(Partial least squares regression) analysis, model[4]. PLS is a statistical model that gives some relation to principal components, alternatively finding maximum variance between the response and independent variables. By survey, the author got the conclusion that online study is very effective in this era. Students can find their tutor on online learning. He used PLS analysis and meta-analysis to build a model to conduct online lectures face-to-face.

The security of the Django framework for web security. the features, limitations, and of the web development framework for python programming. An eCommerce and social network built in python framework for reducing the unwanted noise from access[5]. They described how the security of Django is strong and how we can prevent our application from an unwanted source.

The most capturing and utilizing learner model. The learner model is described extracted based on factors like learning style, browsing history, knowledge factor's like prior knowledge. in this paper he described extracting the learning model based on the Felder silver man learning model[6]. The learner in this problem is the one who studying basic science using the NB Tree classification algorithm technique in conjunction with a Binary classifier. The users can classify their interests.

The individual learner concept. Here, he proposed a personalized learning system that is based on ITEM RESPONSE THEORY (PEL-IRT) consider as both course and study material difficulty. Learners need a single difficulty parameter which is used to model the course materials to obtain a more precise estimation of user ability[7]. They also proposed a concept of collaborative voting to manage the course materials for study.

The review on how e-learning styles were integrated into the learning system. Felder-Silverman's was founded on the most popular theory that was applied.[8]. Online learning classify in different methods like stational algorithm allowed coming back from traditional methods that were used mainly in integration learning styles and also adaptive learning system styles. He also includes a recommendation system that is used to take feedback from the user and also get the knowledge of what users want in ongoing tradition.

The task technology fit, system success model, and also contingency theory for investigating factor that keeps learner for utilize online learning system[9]. The survey focused on both quantitative and qualitative group interview, methods and also applied the cases of blended online learning instructions. The relation between system factors and perceived fit can be motivated online learners to continuously utilize online learning systems in blended learning instruction.

The automation of databases using the python framework. The framework automatically migrates and create a database field according to requirement. Also, create some dummy tables for backup and restoration. Here he explains the asynchronous feature on SQL[10]. In the case of data failure, we can easily restore our data from our database with some hidden feature of the database that makes the database more secure and efficient use for users.

An investigation was conducted to determine the extent of evidence for co-learning can be seen in the interactive testing of students in the online learning environment. Books in collaborative learning identified a variety of behaviors that reflect successful engagement reading there face to face. Evidence of this behavior was sought in existing messages student posts while participating in online workgroups[11]. A review of student contributions shows that there is a lot of evidence of cooperation, but there is a difference between the common face-to-face situations of collaborative learning and what is happening unconventionally in a network environment.

This article is a chart of promises and concerns related to online college online education as illustrated in textbooks. It is argued that to appreciate the strengths and limitations of online education, we need to trace the problems of online education and postgraduate education. The article reviews the history of elementary education through the lens of three historical themes — democracy, free education, and quality of education — and chart the current state of online

education in terms of three educational ideas that can inform the development of online program presentation[12]. The viewing, instructional performance instruction, and epistemic engagement views. The article highlights the potential contributions of online education to democracy and the development of a teaching scholarship

The report focuses on online courses and programs offered as a regular part of the institution's programs, as well as Massive Open Online Courses (MOOCs) usually offered free of charge to those outside the institution's student organization[13]. An online course is defined as one in which at least 80 percent of the course content is submitted online. Face-to-face instructions include courses in which zero to 29 percent of content is delivered online; this section covers both traditional and web studies. The rest, combined (or mixed) instructions, are between 30 and 80 percent of course content delivered online. The definition of an online course has remained the same for the eleven years these national reports have been made. These definitions were presented to respondents at the beginning of the survey and were repeated in the body of each question where appropriate. Although there are significant differences between the delivery methods used by individual teachers, the following are presented to illustrate the classification of subjects used in this study.

The collaboration is often charged as an important part of online success reading, tangible evidence of its value, and practical or direct guidance collaboration strategies continue to be lacking. Accordingly, this study uses both quantitative and qualitative data to investigate how teachers and students perceive the importance of online communication and the teaching methods that enhance that interaction. The results show that the educator sees the educator as well as the learner-student interaction as important features in high-quality online programs[14]. While online readers often see collaboration as an effective way to learn, they differ about each other to have more interaction in online courses. Such diversity seems to be associated with it personality differences or learning styles. Current research also shows that they are not teachers they tend to use technology and engage in educational activities that they are familiar with or do not have to rely on traditional learning arrangements. When it comes to complex reading technologies or techniques, educators are very different in the methods of their new application.

Due to increased concerns about the spread of COVID-19 and calls for the prevention of Corona Virus, a growing trend Tertiary institutions are closed about face-to-face classes around the world. Coronavirus already exists reveals the dangers posed by education systems around the world. It is clear now that the community needs flexible and robust educational systems as we face an unexpected future. The method of the meta-analysis was the findings of this study and the relevant literature were visited to capture the essence of continuous learning over time these are times

never seen before. The results show that universities around the world are improving online reading or E-reading. The results also show that without resources, staff readiness, confidence, student accessibility, and motivation play an important role in integrated ICT learning[15]. This is a test paper suggests that employees should use technology and technology gadgets to improve learning in particular at these rare times. The findings also promote online and remote learning as a requirement during lock times declining social distance from the COVID-19 epidemic. It also provides a strong fur field

4. DISCUSSION

In our paper, here we used Django and PLSQL for a more effective website. Django provides us a flexible feature; we can do easy changes and also the whole project will not effect while some part is at maintenance. It also provides security to our project, speed and application access speed are excellent.

By using HTML, cascade, and java script I created my user interface. Here also Django gives us a feature to reduce the code of HTML by looping feature. we also can use the looping feature in HTML du to that we can use a small code for a long slider or any module that we have to repeat. PLSQL offers a variety of programming structures. It supports structured programming through model and procedure. It supports object-oriented programming to develop a server application.

The flow of my model how it will work here is three end-user students, teachers, and parents. All can register in model, and avail courses. here students can enroll in their course. Internally, we can see that after login, students have to choose a standard to go through the study material. all the flow of teachers is the same as a student, but the difference is that teachers can modify the courses while students can't. Teachers have the facility to log in and also, they can only add chapters and update study materials they can't be able to increase standards or restrict anyone for not accessing the courses. they have simple work for teaching and communication with students. All the standard and courses will add or modify from the admin phase admin have only permission to restrict anyone or increase or decrease the standard according to demand. Teachers also will select through from the admin phase only. All the events like holidays, quizzes, sports, or any official news can be posted by the admin only.

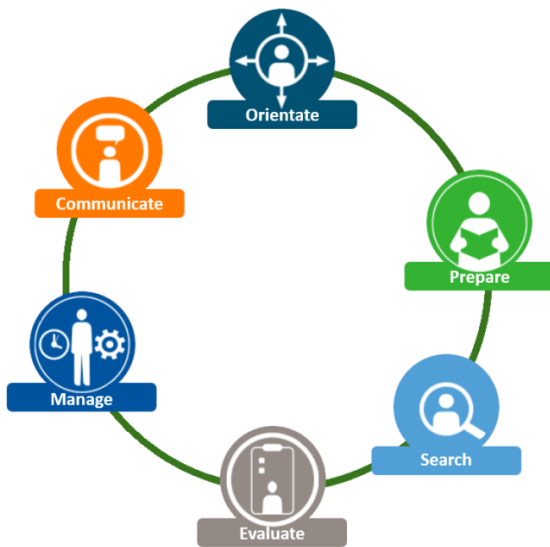


Fig:1.1- A working model

Data of my model will flow in a three-phase first phase, which is the login or register phase where use can register or login. After that next is the platform where users can avail their courses they can also download study material from there. After that logout is there where users can safe from unauthenticated users.

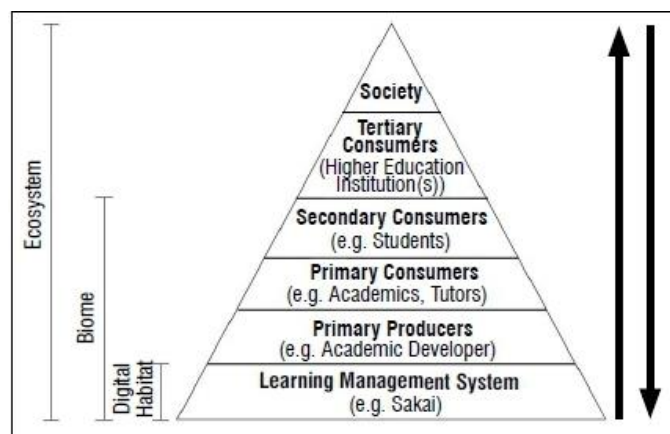


Fig:1.2- Ecosystem of e-learning model

5. CONCLUSION

It helps in availing the online experts. Students can easily get expert teachers for each subject and also they can jump their limitations like one who solved or completed their standard or those who want to study higher they can also increase their level. they can excess any courses like if the student completed the one subject of his standard they can go through with higher section. It helps in availing the online experts. Best source and quick approaches in a single mouse click. Extra curriculum like exam quizzes and any important dates also will inform with the help of the event window. unlimited sources are there they can avail as much as they want also, they can save their time. E-learning operates in

real-time is that is available 24*7 days. Learning timing is reduced. Students also avail better time management like when he is free it means there is no other work then they will start the course. At that time the mind is free so they can understand better. by the results of the highlighting toppers, they will be self-motivated and they also will work hard to hang his picture on the topper notice board. It also improves virtual communication and collaboration. Students are flexible to avail themselves of any platform and they can compete with their exams. Parents also take a report for their children and monitor classes there is no chance to bunk the classes because their parents also have IDs to watch students work.

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June 4-5, 2020

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