EMERGING SUPPORT MEASUREMENT BASED E-LEARNING TO HIGHER EDUCATION SYSTEM

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Abstract-In this work developing e-learning are adopting the replica approaches used by online higher education user. E-learning can provide the numerous benefits to the institutions such as accessing education at any time connecting to each other's. Also it's provide enhances interactivity, integrity scalability improved by the student's academic performance in cloud service. However, sound studies and show majority of these benefits are enjoyed on institutions in the e-learning. The fundamental new idea to keep service data into mind is that the strength of online educational platform comes not just from replicating things that should be possible work in other ways, however when it is used to do things that weren't possible without it. In this propose on Emerging support measurement in Higher Education (ESMHE) this technique using user short on cloud data security initiatives. To implement the online higher educator to arrange document protected close time level less in quick information telling on the e-learning system. In this e-learning to be consider entire process of academic education such as design, knowledge on developing and creating by the wonderful employing e-learning arrangement in cloud. They are significant, and they include improved efficiency, effectiveness, and enjoyment of the learning experience system colossal idea measurement online higher education user.

Keywords- E-learning, Higher education, measurement, services, emerging.

I. INTRODUCTION

Useful e-learning aids can considerably lighten the workload of teacher's online data allowing them to spend more time guiding and assisting each one student. Because these digitized programs can provide appropriate e-learning content, instruction process, and feedback the intervention of a teacher data, they contribute significantly to simplifying and streamlining the work more practices test of educators or user. Developing useful e-learning system aids is, therefore, an important focus of research in the domain of digitized learning. For this reason, a wide range of digital learning platforms and test systems have been developed.

The e-Learning system is an unwatched network teaching system based on the computer network that is an online management system. The system emphasizes course's often the collecting cloud information sharing the network possible work data distributed open architecture, communication of system module of collaboration, data sharing, rapid data edit update and other network characteristics of e-learning from the student self-learning, self-test module exercises and problems discussion, jobs submitting to the final course examination, all of these are automatically initial completed by the system. Interactive e-learning management system for online students. Its host's e-learning, EBooks, webcasts, real time mentoring to student more details and anytime learning for our students.

E-learning is the use of electronic media and information and communication technologies in education. E-learning is broadly inclusive of all forms of educational technology in learning, and teaching e-learning is inclusive of and is broadly synonymous with multimedia learning, technology-enhanced learning. If the Emerging Support Measurement in Higher Education (ESMHE) support on e-learning system higher education service model produces with complete student use. With student manual work to time severe and frequencies measure tell as e-learning information.

If cloud service data e-learning service, a framework has been developed to enable the business to quickly understand the security controls that must be in place to ensure the confidentiality, integrity, and availability request of more data place specific assurance criteria an application link. E-learning with higher education shown the value.
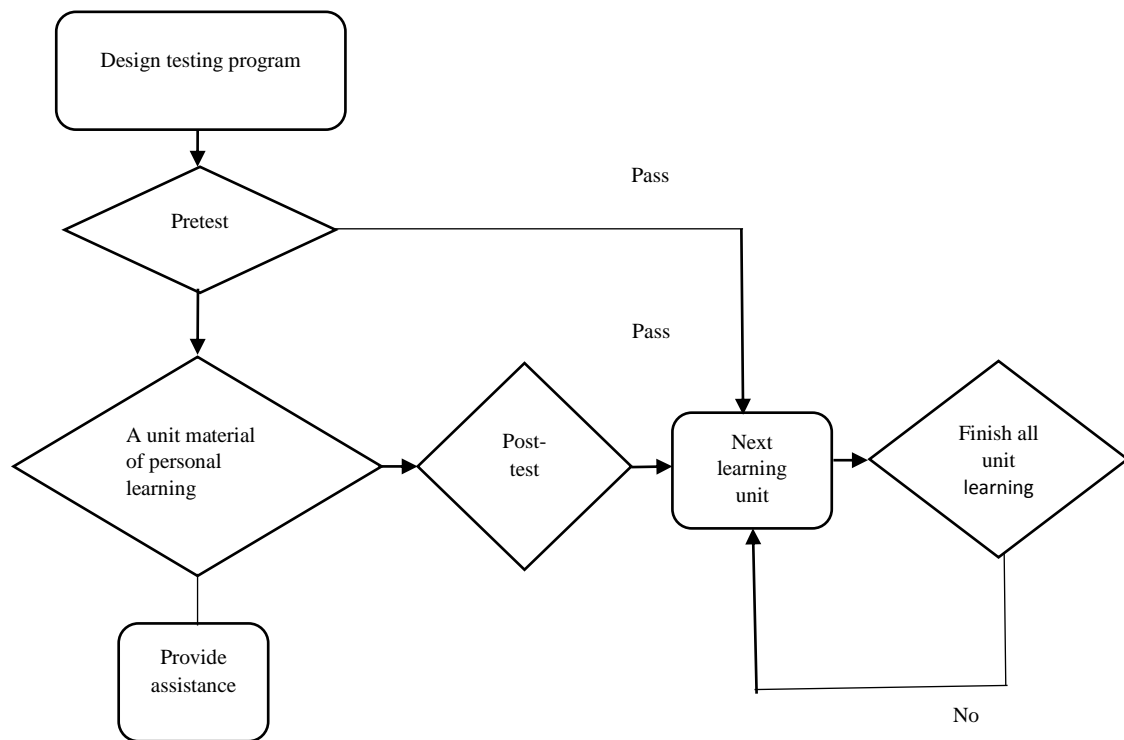
Figure 1.1 Flow of the learning process of Teachable Moment Embedding e-learning

Figure 1.1 e-learning system providing the test module and with coaching vender test and personal coaching assignment test, some of the pass/fail center no visited that e-learning process of teaching moment of next level and finished higher education qualification model.

In this e-learning system design with program type of pretest the content on higher education model on personal information and with registration user login mode set on your private data cloud based on information store with bind. E-learning system for test on a unit material of personal data service on teaching with online pre-service in with providing window pages on e-learning assistance of unit with finish service on e-learning method.

This is to serve the primary government station and high college education on requirements data for online e-learning in one state of and is a compelling indication collection of the explosive growth in online e-learning. In informal online learning, the Internet service has become a primary source for e-learning, and this includes a blending of formal and informal education through the within cloud service availability of free and open data model enrolment in courses through massive open online courses system. It saves on include also states that most students attending online classes are attracted cloud data by the convenience and flexibility of scheduling.

We, therefore, propose a generic framework to manage the label e-learning matching process in diagrams for automatically marking them system. This framework has been named as Teachable Moment Embedding e-learning (TMEEL) and comprises five stages improved. We have also introduced a new method to calculate the syntactic similarity between labels in a diagram. This method combines the existing word-to-word syntax matching algorithms into a label-to-label syntax matching algorithm. We also evaluate this new method using undergraduate coursework from Brunel University and compare the accuracy of automated approaches with that of the human marker.

The framework of the system includes six different types of courses or modules traditional courses, active-learning courses, learner-customized courses, knowledge-service availability based courses, exploratory courses, and generated many courses. Generative courses are particularly suited to students who have special requirements or who do not have the time or patience to complete theme-based courses.

II. RELATED WORKS

Various forms of training that use e-learning systems such as closed and opened educational portals were examined. Existing e-learning systems cannot find information quickly in all the training courses that have been downloaded, which limits access to the information provided. Several commonly used searching engines were researched to access the possibility of using them for efficient access to all materials presented in the e-learning system [1]. If used effectively, e-learning can provide numerous benefits to the institutions such as accessing education at any time and place, enhances interactivity, scalability, flexibility, and thereby improved student's academic performance through creating a supportive and conducive e-learning environment for learning. However, studies show that the majority of these benefits are enjoyed by institutions in the developed countries than the developing once [2].

The importance of distance e-learning education at the university level is based on a number of grounds, mainly: (i) addressing the steady increase in the names of those wishing to obtain a university education, (ii) the existence of various sources to achieve knowledge and their fast growth, (iii) the ability of modern communication and information technology to spread education among educated people, by several ways, and (iv) adoption of the principle of lifelong learning and self-education [3].

Analysis of Learning Management System (LMS) in education shows the need to reorient learning process to meet student's individual needs in digital society. During the canalization of the prospects e-learning systems, we saw a critical need to include personal intellectual agents, whose primary role are to help regulate student's success in academic level and communication strategies in education. The primary goal of our work is to consider communication models in an e-learning environment based on intelligent agents [4]. The Personalization Rules are defined to support the personalized semantic search for different learning resources, which deduced by a reasoning engine. Experimental results demonstrate that the proposed approach enables the resource recommendation to individual users, which is originated from multiple sources [5]. This work will describe the background of the project and discuss state of the art in research on e-learning quality standards and reference frameworks. It then presents the project's goals and results, especially the specification of the quality standard for e-tutors. The work finishes with information on the project impact [6].

E-learning can offer great opportunities to students with disabilities, but still few barriers prevent special needs to participate in educational activities, obstacles that relate to the characters play vital role to prevent student from their educational right, This work presents an attempt to estimate the current levels of attitudes and practices towards e-learning course, the sample of the leading research are comprised of (151) of students with disabilities, Out of which (77) male, and (72) female, the current study belongs to descriptive, analytical studies [7]. With the flourishing development of contemporary information technology and network learning, E-learning plays a vital role in people's learning life. E-learning is aimed at maximizing the efficiency of teaching and learning through a self-learning method which enables individual learners to choose the specific learning resources befitting their level and ability [8].

This specification is built on a sturdy, expressive conceptual model that allows describing in fine learning/instruction processes, in the aim of assisting instructional designers to produce formal and interoperable learning designs, and thus facilitating the delivery of courses on learning management systems [9]. This definition is broad. To offer a common understanding throughout this work we would like to use the term e-learning in a more detailed sense. Hence, we understand and define e-learning as the strategically and didactically well-organized electronic support of learning processes [10]. Five hundred (500) copies of a self-completion questionnaire were administered to students at the only study center resident within the University of Lagos campus. Two hundred and ninety-seven (297) students representing 59.5% returned the questionnaire. The data were analyzed using descriptive statistics. The findings indicated that students preferred a combination of both traditional and the e-Learning methods of teaching for active learning [11]. These improvements allow genuinely interactive learning experience anytime, anywhere. The second group of game changers is the Generation Y or the Millennial. They practically live their lives in cyberspace, so nowadays education has to find its way through the Internet to reach students. The synchronous nature of traditional lecturing does not suit the lifestyle of these digital natives [12].

The analysis has been conducted based on actual feedback from staff, and students via online suggested voting system or the traditional way, the outcome will measure the effectiveness of e-learning system by being able to trace the students' preferences, and to find a new opportunities to apply the e-learning environment in Bahraini universities, which will associate or affiliate people in the community to join Virtual university [13]. The basic idea of education is that it is a type of learning in which a group's habits, knowledge, and skills are carried over from one generation to the next via research, teaching, and training. While education takes place most often under guidance by others, it can also be autodidactic [14]. This work outlines

state-of-the-art precious emerging technologies which are appropriate for carrying out a variety of activities related to not only distance learning but also e-learning [15]. Therefore, we seek to explore user characteristic, user's cognitive styles, their current views on e-learning usability and perceived importance of its usability design features. A survey was conducted in one of the universities in Malaysia where e-learning courseware is extensively deployed. Discussion of the findings is provided [16].

This work aims at presenting and analyzing the e-learning experience at HU and the most e-course activities that should be used to encourage students to use E-class, and how to use and apply e-learning in schools. We have consistently found high levels of students and staff satisfaction through learning outcomes [17]. And sequencing of content-based, individual learner, self-paced learning objects. While definitions of e-learning vary, the main elements tend to include the greater focus on context dimension of e-learning, a more activity based view of e-learning, and greater recognition of the role of the multi-learner environment [18].

In fact, the result of this research will allow the managers to identify and prioritize technical requirements in three areas (e-Learning system, e-Content, and Virtual class) with regard to financial resources limitations, technological possibilities and the importance of customer needs, along with the aim of reaching the highest level of customer satisfaction [19]. With the development of network technology, the traditional e-learning education philosophy and modes can't keep in step with the times, and therefore a learning model of real-time interactive e-Learning system based on Web emerges as the times require. The architecture of this model is analyzed, and the characteristics of each model are also discussed [20].

III. MATERIALS AND METHODS

Technological evolution has brought remarkable changes in economy and society, with an irreversible impact on education. The internet has enabled the emergences of a global world where knowledge and information move at a swift pace, and where flexibility and innovation are essential demands of the learning process. E-learning process focuses on the social admin checking data or information and clear database in light of the client benefit choice. Every facility would create different outcomes for a similar survey from the student with an education. It is essential to cover the Emerging support measurement in Higher Education (ESMHE) which expresses to the understanding or relevance of the inquiry and result on created. Such an approach would enhance the execution of services with processing determination data in the advanced education learning of dataset frameworks. So we consider. Emerging support Measure and Service Ordering in E-Learning for Higher Education for semantic closeness between the reports is essential when it is isolated from the free substance information.
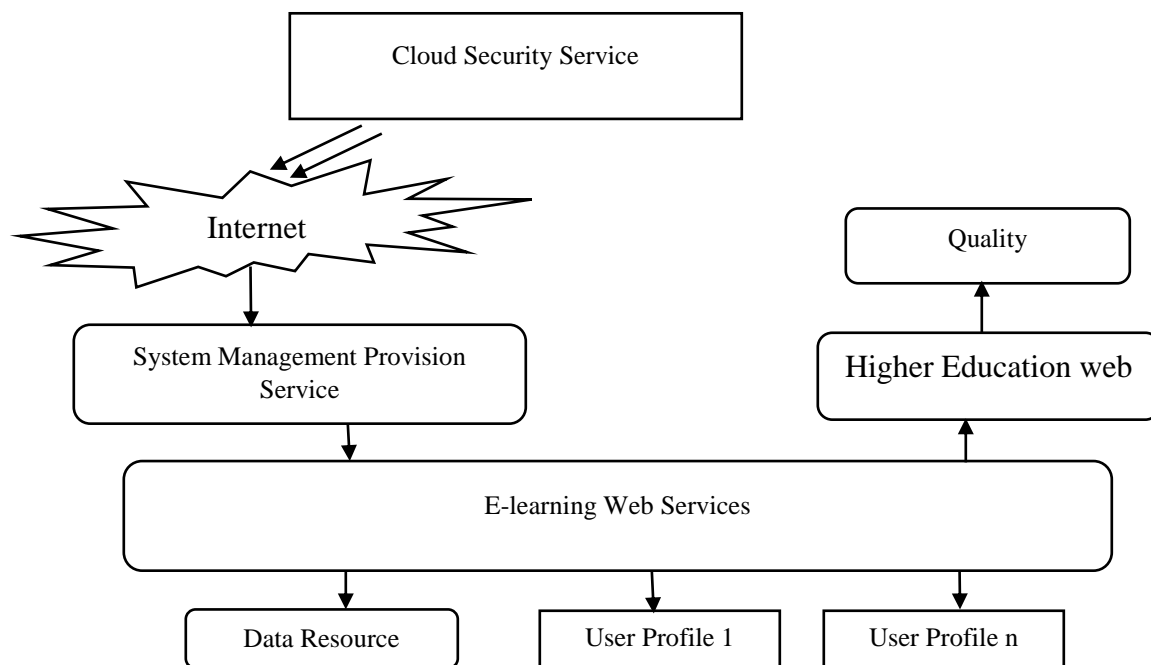

Figure 3.1 working on E-learning based Higher education system

Figure 3.1 The implementation of projects that promote the development of updated teaching and innovative research practices, where Emerging support measurement systems, multimedia resources and blended fully online education process with all information e-learning initiatives start to take place is a significant investment of a substantial number of universities and colleges. If efficient of work to essential students data collection cloud service based on with higher education fully developed time complicity less to the frequency Measure (FM) method on education level various on downtime to calculating some equation of sum.

3.1 Emerging Support Measurement in Higher Education (ESMHE)

In this work implementation of cloud security based on the e-learning in higher education, open university on result should be time variant on use Emerging Support Measurement in Higher Education (ESMHE). The e-learning industry, more web application link particular our service overgrowing around the world in the recent year. The fast highly growth is imprudent these include environmental cost and impact that quality of education and the flexibility and convenience that it some more students. If idea paradigm in e-learning that employs the web service to the message send in learning as the single user or collaborative situation, in this powerful application new sophisticated methods with because of the internet ubiquity. Student higher education based on an area of smart classrooms.

In this work, we describe how blended learning for e-learning professional development was used, by introducing the online system and classroom support as well as learning analytics to foster engagement. The course allowed learners to watch and re-watch as shown by the collected data, collected voice record, lecture videos and have asynchronous forum discussions anytime. Furthermore, learners have invited to two Face-to-Face (F2F) sessions with multiple cloud service to allow in higher education where they engaged in hands-on activities and participated in in-depth discussions.

Algorithm

Further, explain of all step of the operational Emerging Support Measurement in Higher Education process is provided below:

> Step 1: user login to the system; the system determines all information bind whether the e-learning system to complete the process other one information read
> Step 2: If the learner is new to the system, he/she first completes the
> Registration form full with a process, which involves providing it will make all personal data store backend language and setting
> With speed again the more individual learning goals. Next,
> Which the system generates each person login with test online with information communication web link personalized learning path based on pre-test
> Step 3.1: If the learner is an ESMHE, the system guides the learner in the communication of connecting service people continuing the ESMHE process where he/she previously left off.
> Step 4.1–4.4: This stage covers the student learning process for a single module test plan service complete in the ESMHE process. The system provides learning materials based on student Time Complexity on the measure
> Step 4.1: Progress report. Upon completing the module produce communication, the system directs the learner to condition,
> Step 4.2: Commence the examination for this specific stage of learning condition with more checking. If the learner fails
> Step 4.3: The inspection, he/she must repeat the module; if the learner successfully
> Step 4.4: Passes the examination ESMHE process data next unit of learning.
> Step 5: All complete stage repeats the processes outlined condition efficient in Steps 4 until all modules about the specific time level stage on student course of study have been completed.
> Step 6: Based on the post-test results, ESMHE the system assesses and records the Effective learning ness demonstrated by the student.

The operational Emerging Support Measurement in Higher Education process: A Students new guide on data delivery sum result model Emerging Support Measurement in Higher Education (ESMHE) to the learning system participate time landing some in a pre-test to determine the condition look of this merging data possible on working their initial capabilities. After analyzing Teachable Moment Embedding e-learning if part of an e-learning system the pre-test results, the system generates a personalized learning path. Students set their own individual learning goals with complete.

3.2 Course Adoption of Online Learning

Online course with intelligent learning systems all of based on the smart class-oriented model. The student model, on the hand, knowledge course qualitative representation with personal area course telling Course Adoption of Online Learning some

assigning system. If the all course search the new direction add to the e-learning and task analysis. The outputs of this phase often include the instructional goals and that more than list and task will be the inputs for the design phase.

In the online course e-learning subsystem with displaying web-based online exam. If the intelligently generate sessions of works according to a title and phase various rooms, and because type and difficulty level of review questions answer with displaying emerging window with a type of set by automatic e-learning system. Through the statistical analysis of exam results on an online window, the grasp level of learners to knowledge can be quickly processed and accurately evaluated to facilitate learner's multimedia type to adjust learning strategies. The self-test exercises subsystem more test display result provides the function of timely inspecting learning effect online exam model for learners system. Learners can use this system at any time to conduct the test to a chapter cloud service data, and record the corresponding test results to acquire their understanding extent of knowledge type.
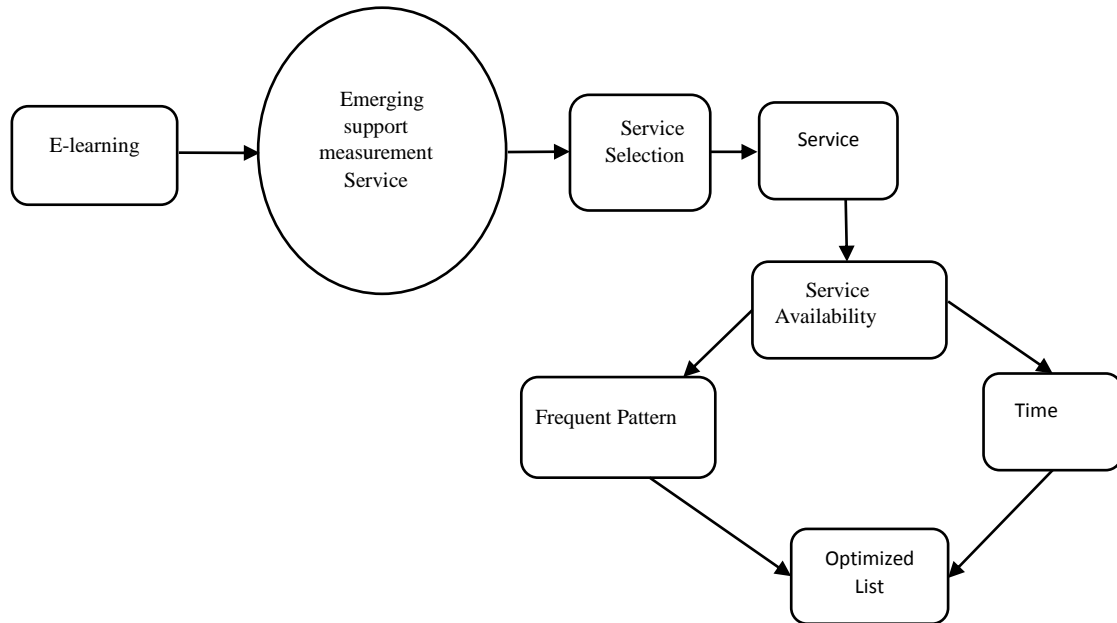

Figure 3.2 Pattern Analysis in E-learning

Algorithm
If pattern analysis in e-learning system followed by the algorithm
Step 1: Start
Step 2: Modelling and optimization Course Adoption of Online Learning of coordinated interactions among autonomous entities for smooth system traditional information
Step 3: service protection selective
Step 4: it as e-learning system managing and controlling this online data the growth arbitrariness
Step 5: viability and scalability e-learning support
Step 6: information assurance and support: security method, integrity method, and significance of the information which online time severe e-learning teaching service
Step 7: it is handling online check errors and conflicts to enable the above without significant disruptions
Step 8: stop

Impact of Frequent Measure on e-learning with measurement of system availability checking than a service particular pattern time various type of easy to calculate common measure. Emerging support measurement service more availability secure system with list values of sum system. Static pages are taken web application link content of constant action checking the values availability the dynamic pages adopted for question S & D, all of then practice test and course test model frequently.

3.3. Teachable Moment Embedding e-learning
If the experience of remote experiments in the teaching of materials on playing an essential role in the curriculum. The students in all forms of science on education bring about the loss of motivation of understanding of a real system. One of the ways

where the help is a web-based link registration new strategy of education, integrated e-learning. The traditional science curricula for engineers with the example on Physics, Chemistry or materials sciences are based on two forms of higher education that lectures, smart area departments where the fundamental laws and models of real-world phenomena are examined. If the following on Teachable Moment Embedding e-learning system higher education algorithm.

Algorithm
Teachable Moment Embedding e-learning algorithm is a text E-learning or classification system that learns from a set of real documents and set on education teaching material on the classic on text education teaching.

Step 1: Start
Step 2: Identifying a set of reliable contrary documents from the unlabeled game.
Step 3: If building and selective iteratively apply a classification model.
Step 4: Condition checking more effecting technique science of higher education.
Step 5: Teaching world on emerging result
Step 6: Stop

In this algorithm world line positive and negative methods on iterative education to environments on good teaching based on identifying a user to set on higher education service to provider outstanding teacher and the excellent result on the real world.

IV. RESULT AND DISCUSSION

In this work developed implementation in visual studio framework for the platform Microsoft with data process emerging environmental science. It is tested on the implementation of an algorithm with many datasets with the data mining service provider with online education web application resources. In this application electronic system data send, we considered only good online education preprocessed application link with click carrying student web application support the outline e-learning service, with all data retrieve in a database. The proposed Emerging support measurement in Higher Education (ESMHE) other web application service produced efficient results than selection methodologies. If the excellent education service model information with discussion selection on web service. We have an implementation of proposing different method Similarity Measure in Higher Education (SMHE) and Fashionable Adoption of online learning (FAOL) and Embedding e-learning (EEL).

4.1 Support of Service Availability
We as support service availability in web service center look at the application. One of the simplest ways to calculate service availability is based on two numbers subtraction and divided agreed service time. You accept the amount of time that the service should be available over the reporting period. This is the agreed service time (AST). It measures any downtime (DT) during that period calculate. You take the downtime away from the agreed service time and turn this into a 100 percent.

$$\text{Service Availability} = \frac{\text{agreed service time} - \text{downtime}}{\text{agreed service time}} * 100\% \quad \dots (1)$$

It is service availability calculate with agreed service time subtraction with downtime for a sum of values in divide agreed service time in amounts of into the 100% compute with one values service availability.
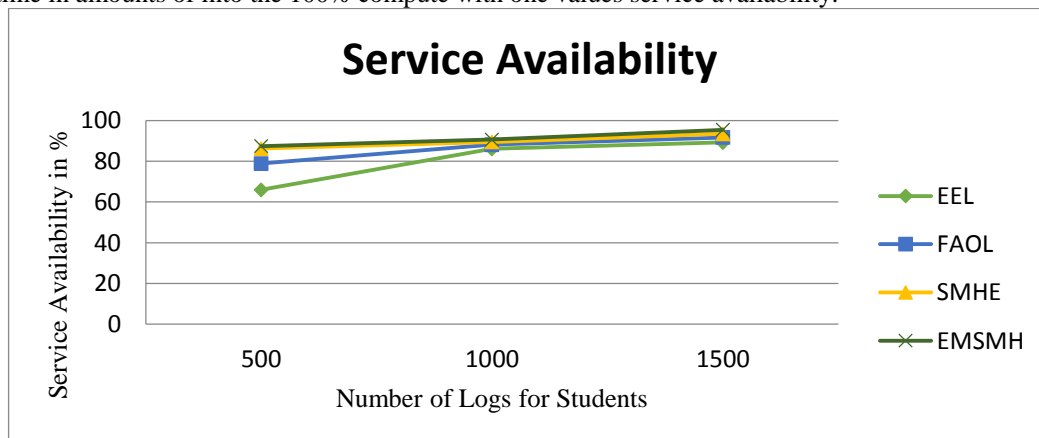

Figure 4.1: Comparison of Service Availability

The above figure 4.1 shows the comparison of service availability data with information number of service logs for student measured between different formula uses. It indicates clearly result that the implementation of the proposed plan has produced higher service availability than other methods.

Table 4.1 Comparison of service availability with dissimilar methods

Number of Logs for Students	EEL in %	FAOL in %	SMHE in %	ESMHE in %
500	65.98	78.85	86.25	87.25
1000	86.12	88.12	89.46	90.46
1500	89.24	91.64	93.45	94.45

The above table 4.1 shows the service availability measure of query search data from data mining resource which returns the number of service to the E-learners have high probability level. The proposed system implementation of produces more top service availability performance compared to other web application systems.

4.2 Impact of Frequent Measure

A measure of central tendency gives the center of a histogram or a frequency distribution curve. The frequent measure analyses as unclassified service providence which in irrelevant subjectivity to the e-learners that are calculated by,

Frequent measure FM $= \dfrac{Number\ of\ services\ wrongly\ assigned - a\ Downtime}{Total\ number\ of\ request\ received} \times 100$ …. (2)
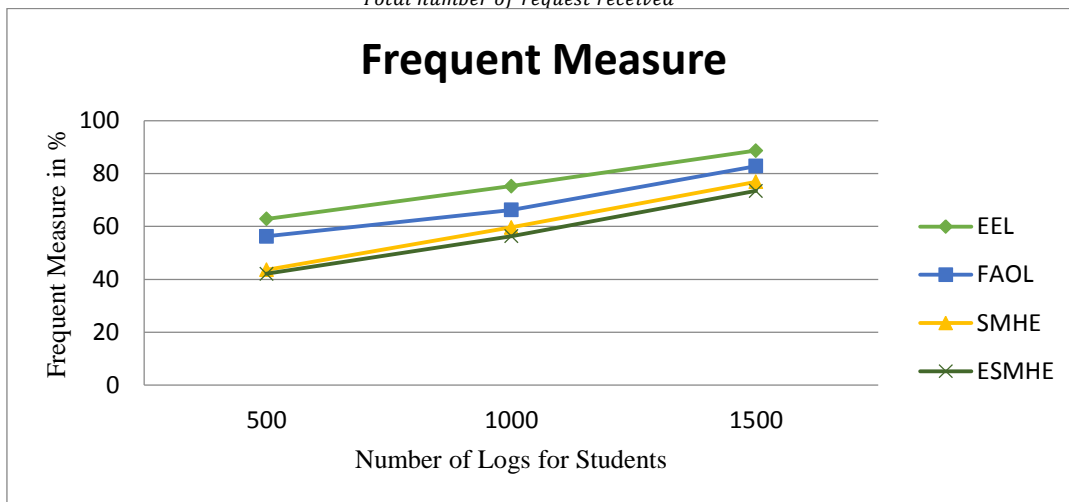

Figure 4.2: Comparison of Frequent Measure

The above figure 4.2 shows the comparison of various measure achieved by different methods. It shows clearly that the proposed implementation plan has produced less or low routine test than others application.

Table 4.2 Comparison frequent analysis with dissimilar methods

Number of Logs for Students	EEL in %	FAOL in %	SMHE in %	ESMHE in %
500	62.85	56.28	43.65	42.11
1000	75.25	66.25	59.65	56.33
1500	88.65	82.82	76.86	73.44

The above table 4.2 shows the frequency analysis with different methods which the test are carried out with an unrelated service probability measure of service result. The proposed method produces the lower base rate of numerous study compared to the other dissimilar ways.

4.3 Impact of Time Complexity

It is memory store in time rate comparison of web system Time complexity is analyzed to calculate the total number of time taken to execute with downtime calculate the service providence from the cloud environment to E-learners that are derived by,

Time complexity $T_c =$

$$\frac{Number\ of\ available\ service + number\ of\ wrongly\ service\ instance - downtime}{time\ made\ for\ the\ Total\ number\ of\ request\ received} \times 100 \quad \dots (3)$$
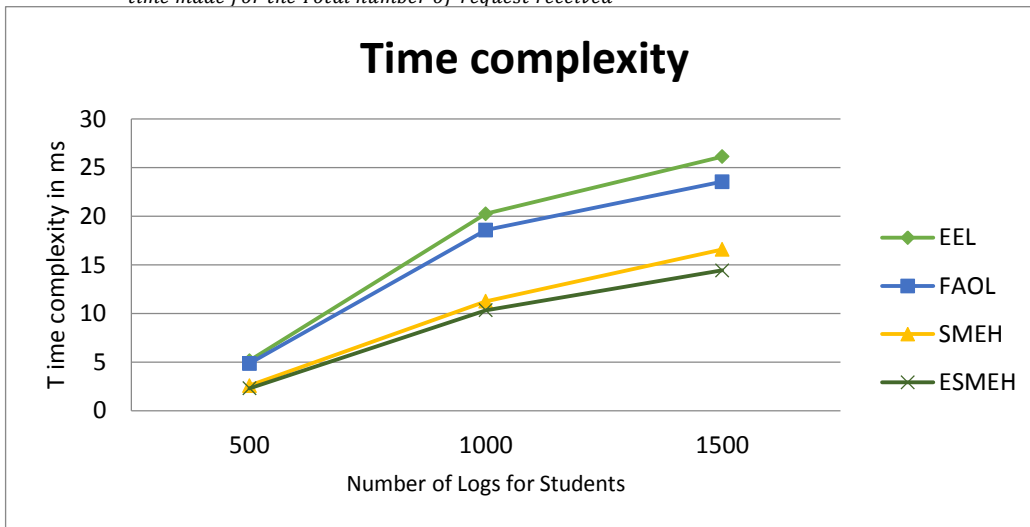

Figure 4.3: Comparison of Time Complexity of different methods

The above figure 4.3, shows the comparison of time complexity produced by considerable time complexity with lower data calculate various means. The projected methods had less time complexity than others.

Table 4.3: comparison of time complexity with dissimilar methods

Number of Logs for Students	EEL in ms	FAOL in ms	SMHE in ms	ESMHE in ms
500	5.15	4.85	2.58	2.3
1000	20.25	18.56	11.25	10.33
1500	26.12	23.54	16.58	14.42

The above table 4.3 shows the comparison of time complexity which they are tested with service selection execution time taken to process. The proposed implementation method produces to lower execution time complexity compared to the other dissimilar ways.

V. CONCLUSION

In this based on Emerging support measure using the proposed algorithm it can the bean E-learning multi type of student's nonlinguistic majors' type program to attend in work settle, it opens the work higher position rank international exam score, and exam attends the in-service being searched. With the proposed implementation of Emerging support measurement in Higher Education (ESMHE) can make it easier to take decisions and the classification of some student information. This

proposed method response redirects the approach to convince student higher education position to hesitate not. If the time should be the higher service availability up to 94.45 also deliver it lower time complexity in 14.42ms lower rate compare to existing one.

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