

Challenges of e-Learning and Implementing a Responsive e-Learning in Higher Education

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Abstract

Responsive eLearning is the way towards building up a solitary course that looks stunning and will function admirably over an assortment of stages and screen sizes. Students today use multiple gadgets of all sizes and shapes like desktops computers, mobile phones and tablets. Depending on the comfort, ease of use and locations the students shift the usages between the devices many times in a day. Nearly all millennials (87 percent) uses two to three devices in a day Workers of both generations use their mobile devices to obtain knowledge through training and learning. Responsive eLearning is the craft of building up a solitary course which will look stunning and perform over a scope of gadgets and screen sizes.

Keywords: *E-learning, Responsive eLearning, advanced education, scholastic difficulties.*

I. Introduction

An investigation by Google uncovered 98% of Internet clients switch between gadgets of different screen sizes in a day. Responsive eLearning offers individuals a remarkable learning adaptability. Responsive eLearning permits successive screening of a course in any gadgets from the point where it was stopped from another gadget. This makes the learner easier to access the courses from any devices and continue the learning without wasting time. This makes the learning profoundly adaptable and easy to understand. Responsive eLearning helps a learner to play out their courses easily and viably, regardless of whether they are utilizing a work area PC, tablets or mobile devices. The courses are consistently accessible and open. It doesn't matter the complexity of activities that learner has to go through to take them inside the course.

Responsive eLearning frequently guarantees that the learners don't have to squander their time for extinguishing or zooming at any time during their learning via any gadgets.

Current Situation

All the training associations around the globe are shut down. Over 1.2 billion youngsters are out of the learning centres around the globe. Accordingly, the guidance for learning has been changed radically with the introduction of e-learning in which guiding occurring remotely and automated stages. Researches suggests that electronic learning has been appeared to augment information upkeep and take less time. Technology has changed along these lines much that it fills the topographical partition with the utilization of assets that make you feel similar to you are inside the study hall.

II. LITERATURE REVIEW

On the worldwide market for higher education, numerous new universities are currently competing fiercely. However, the implementation of e-learning programmes in the majority of wealthy nations is still in its infancy-learning is hard to set up in higher education. To solve this problem, they have put in place an IT infrastructure and a proper e-learning culture. [1] [2] Some earlier studies emphasised how organisational cultures and planning influence how people use e-learning systems. [3]- [4]. Kyzyl et al. [5] noted that the Lack of expertise with online teacher training is a critical factor that may affect how well they use e-learning in a blended learning environment. Another investigation was done by Wang et al. [6] discovered that culture and lopsided degree of data proficiency absence of learning situations and the absence of systems for assets development are the principle difficulties of e-learning execution. In addition [7] Kisanga and H.Aldowah et al [27] demonstrated that The main obstacles to implementing e-learning or changing current e-learning activities involve bad interfaces, a lack of knowledge for educators, resistance to change, and other financial constraints. Mulhanga and H. Aldowah et al [8] [27] contended that the A variety of social, political, and prudent requirements may be exposed by the combination of e-learning stages in advanced education foundations of developing nations, particularly in Africa.

Similarly Kenan et al [9] and H. Aldowah et al [27] discovered the boundaries that may influence singular utilization of e-learning into four fundamental classifications. Usage hindrances, mechanical obstructions, bungle hindrances and social hindrances. They also focused on how certain social issues can affect the suitability of e-learning in a collegiate setting. They discovered that social concerns including PC illiteracy and a lack of eLearning resources could potentially affect how well

teachers use e-learning in their particular situation.

M. M. Alkharang, and G. Ghinea [10] on the other hand examined the components impacting directions' of utilization of online e-learning frameworks. They discovered a significant link between educators' use of e-learning framework and inspiration and Internet self-sustain. Salmon and Jones [11] reported that management (management awareness and support), technical (transfer speed Internet speed foundation PC and information security), and language factors may affect how well an individual learns from e-learning.

Studies by H. Aldowah et al, [27] M.Selim [12] they have claimed that the initial step to making e-learning happen is training on how to use the technology. Likewise Arabiyat [13] found a strong connection between hierarchical parts and how happy teachers are with e-learning frameworks. Even though these studies have tried, none of them have looked at the relationship between the different problems and how individual teachers use e-learning. As stated by Traxler [14] Corbeil and Valdes-Corbel [15] actualizing mobile learning in advanced education is yet to test because of social and authoritative elements. Along these lines the initial step toward an effective execution of portable instructing and learning in advanced education is the under-remaining of elements. According to Mohamad et al. [16] the difficulties of presenting mobile learning in Malaysian schools are assembled into six key issues s includes abuse the board and support current instructive arrangement, computerized separate partner's demeanour and individual space attack

According to Traxler [17] and Mathur [18] the restrictions of mobile learning usage are divided into two type's specialized and educational difficulties. The specialized difficulties are related to the information and yield capacities of the mobile devices.

According to Motiwalla [19] and Ramsden [20] entering text using the on screen keyboard in portable apparatuses is truly unmanageable and addresses prevention to utilizing the gadgets in learning.

Fisher and Baird [22], Farooq AlTameemy, Prince Sattam Bin [21] stated that students are interested in mobile learning and continuance use of mobile phone cause the severe health issues and most of the students are interested in mobile learning and instructors are not showing that much interest. The strains that evolved were discovered by Fozdar and Kumar [23] Using a cell phone to learn during daytime. In addition, Heath et al [24] explained the powerlessness of sending yields to a printer with multiple mobile phones for the student. However, these low broadband organization associations Rekkedal and Dye [25] add little memory storage are the problems of small remote cell transmission. (Attewell and Savill-Smith [26] Learners may be over-burdened due to continuance learning and they need to complete their assignments and tests within time frame (Motiwalla2007) and may be easier to cheat. (Corbeil and Valdes-Corbeil 2007) and Fozdar and Kumar (2007) if they are not properly used, versatile learning can be counter-productive and there is a chance to Maltreatment with MMS, Bluetooth and advanced badger methods.

A. Main advantages of Responsive eLearning

1) Flexibility of learning:

Responsive learning gives adaptability for the client by permitting to use whatever apparatus he needs to learn. For instance the student can get to learning modules from any portable gadget and they can start the learning process from his work area and proceed it on his versatile gadget. The student is no more extended compelled by requirements such as office hours since he can learn without much of

a stretch by using his PC tablets and so on to complete the progress of learning

2) User-friendly:

More and progressively versatile gadget are improving client experience. Obviously responsive web plan has gave shoppers with an agreeable web interface as it can be custom fitted to the screen for all intents and purposes of all gadgets.

3) Less Maintenance:

Construct a responsive site upkeep costs are low as it has just one interface that can work on all types of gears and decrease the remaining task at hand altogether.

4) No more domain names:

If you use responsive eLearning websites that's going to be just one site. But if you are using a mobile website there are two websites you need to configure a separate additional domain.

TABLE I COMPARISON BETWEEN E-LEARNING AND RESPONSIVE LEARNING

Mode	E-learning	Responsive ELearning
Place	Classroom seminars or computer laboratories	Know wherever and whenever
Instructor student communication	Time delayed (Students track their websites or emails) Passive communication	Instant email or SMS delivery ,Quick communication Synchronous Spontaneous
Student interacting with others	Email to email	Always-on Instant Messaging With wireless internet connectivity, there is no trip time. Flexible

		timing on a basis of 27/4 One-on-one communication removed inhibitions and enabled rich communication.
Location	Private location Time to fly to website	No Geographical communications With wireless internet access no travel time
Pedagogical change	Less Features	More voice graphics and animation-based instructions Learning occurring in the area
Input to understudy	Paper based	Coordinated premise conceivable Both offbeat and simultaneous Customized guidance Execution and improvement based reviewing Real-life cases and on the site tests Less paper less printing lower cost
Tasks and examinations	In class or on computer	Any area 27/4 immediate Any measure of time conceivable

5) Simple and enjoyable experience of learning

For understudies, classes may be weakening and upsetting. There is a shortage of learning resources and understudies. Each time the learning cycle becomes theoretically flexible and useful, the study can be continuously modified.

6) Student Monitoring Success Made Simpler

E-learning helps teachers to check the progress of the undergraduate and ensure that their prosperous destinations are cultivated. For instance, if the undergraduate student fails to pass web tests, the teacher should give them more in line with their own learning procedures

7) Reduced Learning Costs:

E-learning permits instructive foundations to lessen learning costs gear in the homeroom on the webpage rentals and book printing. There is no need for schools and universities to present unique coaches for each class, print hundreds of books and restore study halls.

B. Common Problems Faced by Students in Responsive eLearning

The growing popularity of online training is demonstrated through responsive eLearning. In any case, many of them actually struggle, which prevents them from successfully completing their courses. Although teachers must position themselves with genuine expertise and effort. They must set themselves up with the ability to clearly extract the course material and set the students' course.

Adaptability Issues:

Moving from ordinary study hall and eye to eye educator preparing PCbased virtual study hall makes the learning experience for understudies completely extraordinary. Online discussions or building a website need action, even though in a conventional classroom passive listening

and taking notes are required. Traditional-minded students have a hard time adjusting. But they must accept the new learning situations with an open heart and mind.

1) Technical Issues:

Many students struggle to meet their virtual classmates because they lack the robust internet connection and sufficient bandwidth needed for online courses. Their non-functional screens make it difficult to follow the course outline, and their educational experience becomes risky. The only way to get out of this situation is to be completely aware of the level of technical assistance needed for each course before registering for it. Additionally, they should adequately gear up for a successful course completion.

2) Computer Literacy:

While understudies are commonly educated and are accordingly capable to use PCs well today. Need of PC proficiency is a significant issue. Many of them can't work essential programs as Microsoft Word, Excel and PowerPoint. Many understudies discover it problematic to fix essential PC issues since they have no ability in this field.

3) Time Management:

Time board is a testing task for learners as the web courses require impressive time and escalated work. A standard scheduler would help these students. They could even set updates about their courses and assignments.

C. Challenge of Responsive ELearning

1) Layouts Based on Breakpoints:

Responsive eLearning the material and design components should be resized and adjusted to coordinate different screen sizes and resolutions

2) The Right Font:

The selection of the right font is a major challenge when developing responsive eLearning. The right font guarantees good readability across devices.

3) Resizing JPGs and PNGs:

Images or graphics of the vectors can be exported as JPGs or PNG. There are a few choices for dimensioning JPGs and PNGs to match various display sizes.

4) Interactive and Navigation Elements:

A significant part of an eLearning course is the interactivities and navigational elements. Introducing components like a drop-down menu of a few layers or on the other hand an accordion intelligence on a PC screen is not a problem. However, planners will in any case encounter the issue of screen space restricted on smaller devices and that makes it a challenge to develop intuitive interactivities and navigational menus.

5) (Audio/Video) Media Issues:

Programmers use HTML5 `< video >` and `< sound >` to play video or audio, and most of them support specific video locations (such as MP4 OGV and WebM). The hiccup here is that you will need to add sound/video records in all those designs to disperse a large variety of gadgets. In addition, if you need video quality you need to build several types of the same video or consider streaming using a media server Recordings

6) Browser Challenges:

When designing a responsive web design website, you should bear in mind that it should function cross-platform consistently, i.e. if viewed on different browsers, the behaviour of the website should not be modified.

7) Evaluation & Assessments:

There are two folds to the challenges Evaluation and Assessments. The primary challenge is estimating the learner's achievement. Therefore educator need to know how to evaluate understudies and viably screen their securing the data. This is the critical significance in explicitly where there is no constant connection among teachers and understudies in offbeat on the web courses.

III. CONCLUSIONS

The technology has changed the manner in which the individuals learn. Responsive eLearning and mobile learning application are not mutually exclusive. Responsive eLearning is designed so that the content will render well on any screen size for any devices. It permit your students to get to content on any gadget and consistently switch between various gadgets.

Responsive eLearning focuses on learning from anywhere and any device. But in mobile learning we need to download the application in our advanced cell relying upon your working frameworks IOS Windows or Android. Both options have their pros and cons. We have to comprehend our intended interest group and their adapting needs. In our future work we are implementing a responsive eLearning website and showcase the growth. We are going to introduce an e-portfolio for all the students to determine their marks in all tests and assignments. It allows students to document and track their learning in a formal and non-formal settings. The E-portfolio for informal learning include the skills and competencies of students. Students may assess their own learning and therefore they can ideally prepare to meet their future career goals. Such e-portfolios would be useful when applying for jobs and choosing careers.

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