

# THE EVALUATION OF PHYSICAL EVIDENCES IN VIRTUAL LEARNING SYSTEM

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## **ABSTRACT:**

Virtual education is an emergent industry including all the facilities for the enhancement of students in the virtual platform. The study is conducted to analyze the requirement of students with respect to the design of the web pages and other primary contents of the website. The data is collected and analyzed to know the requirements of students in watching videos, accessing study materials, functionalities of mock tests and other contents of websites. The attractiveness of the web pages makes a huge impact on the respondents to access websites effectively and efficiently and makes the users to stick on the web pages and invest more time. It is very convenient for the service provider to understand and analyze the behavior of the users.

Keywords: *Functionalities of mock tests, website, web pages*

## **INTRODUCTION:**

The commercial usage of internet has evolved on 1983 and till date the usage and number of users is increasing. More than 1.58 billion active websites are available with more than 5 billion daily active users. As the technology got updated, the dependency on the websites increased daily. And it has become our part of life. Progressive web apps, artificial intelligence, single page application, motion user interface and many more trending technology are used to develop effective web sites and attractive web pages by delivering all the essential features. Parallel effects, 2D and 3D visuals, AR experiences are major developing trends in designing the web pages. In the virtual educational sector, it is vital part to design in an effective way to attract students by keeping all the requisite features of web sites. Headline, sub headline, Menu list, navigation, security, disclaimer, agreement, privacy policy, supporting images and many more features need to be concentrated. Usage of templates to design website is having less value compared to developing their own design. Construction of media player to watch videos is a primary tool including many features that helps the students to increase the accessibility. Displaying of all the options in mock tests is also a vital part in designing of web pages.

## **LITERATURE REVIEW:**

Immense Literature is reviewed to understand the nature of online education system and its methodology of working in the actual scenario

### **1. Terry Stancheva, (3-10-2021)**

The blog writer, Terry Stancheva has clearly studied and analyzed the utilization of videos over the various devices and evidently specified the usage intensity and detail statistics of video consumptions in her blog. Approximately 66% of total population of internet users in the globe prefers videos as the primary source of information. Reliance over Facebook videos are almost 500 million in a day and about 375 million of viewers are depended on mobile phones. 300 hours of videos are uploaded in YouTube platform on daily practice and about 2 million viewers watch videos over YouTube with an indication of one third total population of internet users. With an average of 6 hours 48 minutes of videos are watched over online in a week and more than 90% of business is growing by accomplishing new customers through the online videos. Mobile users are of age groups, 18 years– 34 years, 35 years – 49 years, 50 years – 64 years and above 64 years are watching online videos of 105 minutes, 79 minutes, 48 minutes and only 24 minutes per week respectively. The business using videos as the marketing strategy is boosted faster by 49% compared to other businesses and around 81% of the businesses follow the above mentioned strategy with 89% satisfaction rate.

### **2. Michael Graw , Daryl Baxter , (23 – 09 – 2021)**

The authors' clearly specified the requisite of media players as the operating system and internet browsers get upgraded. The construction of media players in the development of websites to deliver the video watching facilities is an exceptionally vital aspect. The compatibility of media players frequently changes as there is an up - gradation in the other system software's are researched and proved. It is incredibly essential to upgrade the media player to equivalent its compatibility with the existing software's. In the present context, the partial and complete downloading of videos from the server into the media players are the primary attributes to watch the videos to save the existing internet data and partial downloading is very much considered since the availability of media player and its features are abundant in number. The implementation and usage of advanced features are very much required with is up - gradation as the other system software's and the internet browsers gets upgraded.

### **3. Agusta Palsdottir, (June, 2019)**

The writer Agusta Palsdottir, has made detail research and analyzed the advantages and disadvantages of printed and electronic study material. The educational websites primarily depends on e – books, PDF and general electronic text. According to the published article, the potentiality of study materials are totally depended on text and info – graphic images and in the coming years the video materials are added to that section of study materials. Most of the Students of “**The University of Boras, Sweden**” are agreed to consider the e – learning materials as effective mode of delivering textual knowledge and its very handy and easily understood. Capability to focus on reading, Remembrance, Length of the textual material, organizing, accessibility and volume of the content, availability of technology, searching and browsing knowledge, and environmental issues are the foremost attributes considered for the study.

### **4. Ranjan, (1 – 10 – 2021)**

The author has clearly mentioned the various kinds and features of mock tests in his article. Mock tests are vital part for the preparation of any type of exams and it is mandatory for the students to make self assessment. Repetition of mock tests, countdown timer, over all time allocation, providing the results in the percentile are the major attributes considered for the study. In the present context, many service providers are providing intellectual features for the students to enhance their knowledge. Duration of the mock tests is considered as the major factor for the analysis of the students' competency. Auto save is the feature which reduces the burden of finishing the mock test manually and automatically saves all the inputs provided by the students. The author also described the mock tests in the form of Quiz pause, random quiz, leader board and many more vital portions of the requisite mock tests for the enhancement of the students' knowledge

#### **The objectives of the study**

1. To understand the preference of students on using Mobile phones, Website and tablets to watch educational videos and to evaluate its effectiveness.

2. To recognize the requirements of study materials formats.
3. To analyze the priorities of the students over the various attributes of the mock tests.
4. To analyze the level of impact of web designs on the students.

### Data Collection, Analysis and Interpretation

Primary data is composed by applying the random probability method through the planned questionnaire with the aid of Google forms by concentrating the students belongs to a range of diverse educational forum in Shimoga city. Approximately 40 questions are included in the Google forms and collected demographical data and other qualitative data to fulfill over objectives. All the collected data are requisite in nature and analyzed by applying necessary statistical tools and in further we obtained the satisfactory results to understand the current context of virtual education market with respect to the necessity of physical evidences that makes an intense impact on the users. The obtained qualitative data is entirely related to the platforms to watch the educational video sessions along with the media player, requirement of partial download and complete download of videos, format of study materials required for the study and diverse attributes of mock tests are considered for the study. A total of 200 students are participated in the survey with different educational backgrounds.

Highest number of respondents belongs to the age group of 18 years to 22 years striking 72.3% of the total respondents. The male respondent contributes 57% for the survey and female respondents contribute 43% to the study with 13 different educational backgrounds. Among 200 respondents 75.% are preferring Mobile phones to watch the videos, 20% are preferring web site to watch educational videos and the rest gives importance to tablets for watching videos. The effectiveness of the mobile phones and websites are almost same to understand the videos and tablet comes under least with respect to its effectiveness.

Around 97. % of students give preference for both text and images in their study materials and 87% of students prefers PDF and WebPages to study. 10% prefer only PDF and the rest belongs to only web pages category.

The highest weighted average is calculated for the attributes related to features of mock tests and other contents of web pages.

**Table 1: The Weighted Average of the above mentioned attributes**

Sl. No	Attributes	Weighted Average
1.	I prefer the same Mock test to take repeatedly.	43.33
2.	I prefer to have the overall time allocation for the Mock test.	42.46
3.	I prefer Countdown timer for individual question in the Mock test.	40.66
4.	I Prefer to continue to take Mock test, even there is loss of Internet in the middle.	45.26
5.	I prefer to view the number of questions I attended after Completing the Mock test.	42.133
6.	I prefer to view the number of questions I visited after completing the Mock test.	47.81
7.	I prefer to view the number of questions I am not visited after completing the Mock test.	46.81
8.	I prefer to view the number of questions I answered Correctly, Not answered and Wrong answered after completing the Mock test.	46.73
9.	I prefer to have an option called Marked for Review,. to come back to the question that I already attended.	42.84
10.	I prefer to view the answers of all the questions after completing the Mock test.	47.39

11.	I prefer to have a detail score card.	46.68
12.	I prefer to have a comparative analysis of my performance with others performance.	42.48
13.	I prefer to have Individual performance analysis also.	47.62
14.	I prefer to have an option to save the Mock test after completing it.	48
15.	I prefer to know the time I spent on individual questions in the Mock test.	47.91
16.	I prefer to know the overall time I spent to complete the Mock test.	48

The above table depicts the weighted average of all the mentioned attributes belongs to the range of 41 to 48. With least standard deviation of 5.72 and its coefficient of variation is around 7.31%. the priority of the students over the mentioned attributes are almost same and least coefficient of variation represents the preference of students towards the attributes are similar and the requisite of considered factors are most important for the students in their mock tests.

Saving the mock test, individual performance analysis, overall time spent to complete mock test and to know the time spent on the individual questions are the attributes received more preference from the students compared to other factors.

**Table 2: Weighted Average of the following factors.**

Sl.No	Attributes	Weighted Average
1.	I give high priority to Notifications.	48.23
2.	I give highest priority for the Menu List in online education.	45.97
3.	I prefer to have quick access to the different options of Menu.	40.68
4.	I prefer search Bar.	41.11
5.	I prefer Frequently Asked Questions. (FAQ) section.	47.63
6.	I give priority to have Discussion Forum	40.21
7.	I prefer to have a system to message other students.	41.11

The calculated weighted average representing the attributes of the different features of web pages. The highest priority is provided to the notifications, FAQ and menu list respectively. The remaining attributes belongs to the range of 40 to 45 and it is clearly noticed that all the factors are having similar importance. All the above mentioned factors are very vital with respect to the obtained results. The standard deviation for the above factors is 5.74 and its coefficient of variation is around 4.92% representing the least coefficient of variation. Dependency of the students on the above factors is high and it is proven by the obtained results. The coefficient of correlation between the features of web pages and the features of mock tests is +0.67, representing the moderate coefficient of correlation and it is proven that all the features of mock test category and the features of web pages are very vital. More priority is given to all the contents of web pages and it is proven that there is high impact of design of web pages and the available contents on the respondents.

### Suggestions

1. Users provide more preference to the mobile phones for watching video sessions compared to website and tablet. Most of the educational apps will not support the android operating system or I OS. It is mandatory for the virtual education providers to concentrate more on compatible mobile view than tablet view.

2. In the present context, respondents prefer partial download of videos than complete download and it is a vital part for the developers to build a media player to allow the partial download facility. That further helps to save internet data pack.
3. The web page designers and developers need to provide more PDF and e content in the format of text and info – graphic images for the better understanding for the students. The web pages and mobile applications designs should support the flexibility to upload the text and images in the required part of the web pages. And option should be provided to the students to download the PDF files for their study.
4. The visibility of countdown timer, questions, result sheet, should be clear and most of the cases in the mobile applications the mobile view will not be clear and the service provider need to give importance for that area.
5. The designing of the WebPages attracts the users to surf the website in detail and makes them to stick on the web pages for more time. All the features of the web pages got similar priorities and it is important for the web page designer to display the entire feature in an effective manner and make the user to get awareness easily about the availability of the features in the web pages once they visit the web site.
6. The features of mock tests considered for the study got approximately equal priority and hence it is proven that all the features need to be provided in the mock test category with a clear mobile view, web page view and tablet view.

### References:

1. Terry Stancheva, (3-10-2021), “**24 Noteworthy video consumption statistics [2021 Edition]**”, Literature Available at URL: <https://techjury.net/blog/video-consumption-statistics/#gref>
2. Michael Graw, Daryl Baxter, (23 – 09 – 2021), “**The best free video players to use in 2021 as Windows 11 approaches**”, Literature Available at URL: <https://www.techradar.com/in/best/free-video-player>
3. Agusta Palsdottir, (June, 2019), “**Advantages and disadvantages of printed and electronic study material: perspectives of university students**”, Literature Available at URL: <http://informationr.net/ir/24-2/paper828.html>
4. Ranjan, (1 – 10 – 2021), “**How To Configure The Advanced Mock Test Feature**”, Literature Available at URL: <https://support.learnyst.com/en/articles/1553179-how-to-configure-the-advanced-mock-test-feature>
5. Harikrishna Kundariya, ( 26 – 4 – 2021), “**Top 10 Web Development Trends to Expect in 2021**”, Literature Available at URL: <https://blog.hubspot.com/website/web-development-trends>
6. Vectornator, (16-4-2021), “**TOP WEBSITE DESIGN TRENDS FOR 2021**”, Literature Available at URL: <https://www.vectornator.io/blog/website-design-trends>
7. Lindsay Kolowich Cox, (28 – 5 – 2021), “**12 Critical Elements Every Website Homepage Must Have [Infographic]**”, Literature Available at URL: <https://blog.hubspot.com/blog/tabid/6307/bid/31097/12-critical-elements-every-homepage-must-have-infographic.aspx>
8. Knowly, July 22, 2020, “**Types of exams and tests**”, Literature available at URL: <https://www.onlineexambuilder.com/knowledge-center/exam-knowledge-center/types-of-exams-and-tests/item10246>
9. Sara Mcguire, (Sep 28, 2018), “**10 Types of Visual Aids For Learning [+ Teaching Aid Templates]**”, Literature Available at URL: <https://venngage.com/blog/visual-aids-for-learning-templates/>
10. Jeff Knutson, (March 03, 2020), “**5 Online Discussion Tools to Fuel Student Engagement**”, Literature Available at URL: <https://www.common sense.org/education/articles/5-online-discussion-tools-to-fuel-student-engagement>