Evaluation of High School Websites Based on Users: A Perspective of Usability and Performance Study

Ana Maria Santos, University Portucalese, Porto, Portugal
José Antonio Cordón-García, University of Salamanca, Salamanca, Spain
Raquel Gómez Díaz, University of Salamanca, Salamanca, Spain

ABSTRACT

This study has as an objective to evaluate four educational sites directed to High School through the implementation of an assessing EQEWS Model, based on Santos, Cordón García and Gomez Díaz (2017). The evaluating quality model is based on ten criteria, according to a Likert scale of 0 to 4. The results gave rise to a quality ranking with the averages of the two best and the two worst sites. These four sites were evaluated by two hundred users who answered a questionnaire applied through of agree, disagree and undefined scale. They evaluated the performance and degree of satisfaction while consulting the websites. The results showed that usability and navigation were the first and second criteria to be preferred by the users. A majority of the users were satisfied with the usability and the navigation but dissatisfied with the criteria of update and communication of the websites they evaluated.

KEYWORDS

E-Learning, Evaluation Criteria, High School Students, Usability, Users Satisfaction

1. INTRODUCTION

The Internet is considered the largest and most vast repository in the world, where different types and quality of information (Carvalho et al., 2005) are in use by users’ and by the young children, so we must be careful to all the data on the Internet. Teachers are taking advantage of new forms of communication interaction, and particular, the possibility to transform teaching and learning process (Hinostroza and Ibieta, 2016). So, the electronic educational resources are becoming more present in the teaching-learning process.

As the authors, Yung-Chin and Chia-Ho (2016) said that children using the Internet are increasing year by year and provides various information displays. That is why young people need to select information and taking into account of knowing what it offers on the Internet.

The Internet has permeated in our lives as a communication medium, a means of entertainment, and a tool for accessing information (Sundeen, Garland and Wienke, 2015). Follow this words Nielsen (2012) said that because the depth of knowledge available is immense and changes daily.

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There are increasing concerns about the quality of these websites. Websites are considered an essential tool in many real-life applications such as business, education, industry and entertainment.

It is essential to study the satisfaction and performance (effectiveness and efficiency) of the website from users’ perspective, which called usability. Usability defined as the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use (Nielsen, 2012). Therefore, the primary objective in this research is to find a way to improve the evaluation of the usability of the educational websites by using a Model EQEWS (Santos, Cordón García, and Gomez Díaz, 2017). Also, to know the perceptions of the users through the evaluation of eight educational websites taken from the results of the application of the quality assessment of educational sites.

This study aims to evaluate educational websites, if they have quality criteria of evaluation, like authority, update, accessibility, usability, communication, graphic design multimedia quality, content, navigation, speed access and interaction.

The contributions of this paper to current literature have five points. First, determine and evaluate the most relevant criteria for an educational website. Second, apply a decision model Evaluation of the Quality of Educational Websites (EQEWS) methodology. The third objective, presents the results of scenario analyses that capture the effects of different criteria generated according to their qualitative and quantitative approaches to the ranking of the best and the worst websites. In the fourth place asks students to evaluate four websites that had a bad ranking evaluation after applying the model EQEWS. Finally, the fifth objective, to know if the users had the same evaluation as the results of the model EQEWS and degree of satisfaction when they analyse those education websites.

The rest of the article is structured as follows. The second section shows the state of the art progress and identifies some studies. The third section addresses the research methodology used and the instruments. Fourth is revealed the results of the apply method and the results of the model and the findings of the user questionnaire, the fifth section contains a discussion of the results, and the sixth section comprises the conclusion of the paper of quality evaluation of educational websites to support learners in high school.

2. BACKGROUND

Here are some studies about this subject in the evaluation of education websites in different perspectives, for example, assessment of distance education websites with a hybrid multicriteria approach and guide system designers in identifying the key factors facilitating distance education website development (Kabak et al., 2017).

Acosta-Vargas, Luján-Mora and Salvador-Ullauri (2016) investigated evaluation of the web accessibility of higher-education websites all over the world. They want to know if the even people with disabilities can access and use sites of the universities with higher academic prestige, and they conclude the majority of the tested websites do not show a higher level of web accessibility.

Vosylius and Lapin (2015) wrote about the usability of educational websites for tablet computers and examined educational materials used on tablet computers as these devices are widely used in education today from three perspectives: education, gesture interaction and website.

Pant (2015) research about usability evaluation of an academic website and he presents an innovative multi-method approach to site usability of the website of Central Science Library (CSL), University of Delhi. His methodology based on the Multi-method approach of evaluation with the use of the standard checklist and questionnaire survey of representative users. He considered six usability attributes: Usefulness, Efficiency, Effectiveness, Learnability, Satisfaction and Accessibility. The approach adopted in this paper is cost-effective in comparison to formal usability tests and heuristic evaluation. Therefore, this framework is suitable for libraries having a limited budget to ensure the user-centred library website with maximum usability.
Uses and Gratifications for the World Wide Web
www.igi-global.com/chapter/uses-gratifications-world-wide-web/14728?camid=4v1a