World Conference on Educational Sciences 2009

Web sites for children

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Abstract

Rapid development of technology permits new forms of interactions with the use of internet technologies. Children web sites are great tools that combine education and entertainment which is also called as edutainment.

The purpose of this study is to explore and to examine the content of children web sites in Turkey according to given information, entertainment, education, and interactivity. The analysis is based upon six children web sites in Turkey.

A checklist was used to evaluate and describe different aspects of the web sites and web sites were categorized according to age groups they appeal to. The results of the evaluation were examined and discussed according to related literature.
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Keywords: Web sites for children, internet, web site evaluation

1. Introduction

Information and communication technologies are changing very fast and showing us new horizons in many fields including education and entertainment, these rapid changes are in every part of our life. Computer and information technologies are offering great learning opportunities. Learning is defined as the acquisition or encoding of new information through practice or experience. Learning can be formal or informal, while formal learning takes place in schools, informal learning can take place in everywhere and every time, we can also learn something even we are not aware of the learning. Children are defining their behaviors as browsing web pages and entertainment while adults are describing as learning, so web sites for children are great tools for them to learn new topics easily.

Children's access to computers and the Internet has been increasing; they face with computers in a variety of places. They can use computers both inside and outside of the school not only to play but also to learn; therefore it is inevitable that their way of living and learning are influenced by computers (Druin, 1999). Children search information to do their homework, to learn more about the world around them, to play online-games, to send electronic mail to friends, to chat with friends and so on.

Children are less knowledgeable about the real world than are adults; as a result, they cannot evaluate the legitimacy of most Internet content by comparing the information to their own experiences. In addition, children cannot easily evaluate multiple pieces of information at once and may get distracted by extraneous information (Dorr, 1986). An instructional message is a communication that is intended to foster learning. In presenting an

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instructional message to learners, designers have two main formats: words and graphics (Mayer, 2001). According to Mayer's cognitive learning theory (2003):

- Human memory has two channels for processing information; these are visual and auditory.
- Human memory has limited capacity for processing information
- Learning only occurs by active processing in the memory system which requires attention and the motivation of the learner.

2. Children and the Web

With the rapid development of information and communication technologies many people are affected by technology which has become an important part of our lives. Access to the Internet and use of digital media among children in developed countries earlier ages is growing increasingly.

3. Ideal Web Sites for Children

Web sites allow children to navigate through virtual pathways on the knowledge sea. Children not only want to get information but also to have fun. Due to the entertainment needs of the children learning is only possible when a web site motivates them.

It is no surprise that children face an even greater challenge when it comes to evaluating information. Cognitively, children are different from adults. Developmental differences have been found in children's attention, comprehension, and retention of both mediated and nonmediated information. Regardless of the context, children focus on the perceptually salient aspects of stimuli and cannot simultaneously attend to other information (Piaget, 1976). Therefore, younger children have limited capacities to manage same information given, it would be better to give the information by dividing them into the smaller pieces. Children's attention to a television program is influenced by the appearance of the program such that content with bright colors and music will be looked at and recalled more than content lacking these features (Alwitt, Anderson, Lorch, & Levin, 1980).

Sullivan et al (2000), summarized characteristics of children and adult web sites in Table1

Table1 Characteristics of Children Web Sites

	Children Web Sites	Adult Web Sites
Frames	Yes	No
Graphics	Graphics-rich	Minimal graphics
Animations	Frequent	None
Standard link colors	No	Yes

4. Selected Web Sites

The analysis is based upon web sites that are designed for children in Turkey. This web sites are selected by using search engines with "children web sites" ("çocuk web sitesi") key words in Turkish and the search was repeated with using three search engines (yahoo, google, altavista) and the first five result of each search are listed below in table 2

Table 2 Selected Web Sites

No	Name	Web Site
1	Rtuk Çocuk Web Sitesi	www.rtukcocuk.org.tr/
2	Afacan Çocuk	www.afacancocuk.com/
3	Trt Çocuk Kanalı Resmi Web Sitesi	www.trtcocuk.com/
4	Şeker Çocuk Web Sitesi	www.sekercocuk.com/
5	Çocuk Kulübü	www.kulturcocuk.gov.tr
6	Doğuş Çocuk	www.doguscocuk.com.tr

4.1. Rtuk çocuk web site

The aim of this web site is to make children to gain media literacy. In the main page of Rtuk Çocuk web site there are animations and pictures, some of these pictures are links and when mouse cursor is on them the links can be seen easily with the animations and different sounds. In this web site the colors are bright, buttons are in big size and animated, after clicking on a button on the main page of the web site, the coming page is different in appearance.

4.2. Afacan çocuk

This web site is for children aged 3-11 years old and it is different from Rtuk Çocuk in terms of types of buttons, text. Compared with Rtuk Çocuk buttons are smaller and they are not animated, there is more text in the main page as a result of this scrolling is needed. Page structure doesn't change when you click on the links but navigation menu on the left changes and it is hard to reach the main menu again.

4.3. Trt çocuk web site

In the main page of Trt Çocuk web site there are big buttons that navigate children to other pages, where the page structure and color doesn't change, there is not much text given on the main page that requires scrolling and the colors that used in this web sites are bright, some animations are also with music. The flash animations are used often that takes a long time to load the web page clicked.

4.4. Şeker çocuk web site

In the main page of Şeker Çocuk web site there are some news that are not related directly with children and there is a great amount of text that requires scrolling, the navigation menu is simple without animation. Page structure doesn't change while navigating. It is obvious that the web site made by novice web designer, in the about section of the web site it is seen that the web site is made by 11 year old boy who can serve as a model to other children of the same age.

4.5. Çocuk kulübü web site

This site is the official web site of Ministry of Turkish Culture, there are some links including culture, Atatürk, entertainment, health, children songs, and environment. When the main page is loaded the music starts to play and there is no button to turn it off. The navigation scheme is not apparent. It is normal to have great expectations from official site of Ministry of Turkish Culture but it is obvious that this web site is far away from meeting this expectations.

4.6. Doğuş çocuk

Doğuş Çocuk web site has a main page with bright colors, animated buttons for navigation, there is not much text, the graphics (pictures animation, video, etc.) are clear and recognizable and appropriate for the education level of the targeted users, shortly the visual elements motivate the user to return to the site.

5. Method

Web pages evaluation methods, criteria's may differ according to where it will be used and target group (Akıncı and Çağıltay, 2004). In this research, an evaluation scale made by Jane Strickland which is selected among plenty of web site evaluation scales, which is appropriate for evaluating children web sites. Inter-rater reliability was tested on three coders. The reliability scores were at significant level when rating the records using evaluation scale.

In this web site evaluation scale there are 13 sections about web sites which users can rate the items of the scale, from 1 to 5. These 13 sections are content, organization, navigation, ease of operation, visual appeal, motivation, accuracy of information, legal compliance, suitability to purpose, readability of text, readability of graphics,

appropriateness for target group and educational value. After rating each subject of the web site evaluation scale, the points from 1 to 5, given to each subject, added to the sum and then divided into number of items in the web site evaluation scale to find the average score for each children web site, and the average scores for the web sites are listed below in table 3.

Table 3 Average Scores of Selected Web Sites

No	Name	Evaluation Average Score
1	Rtuk Çocuk Web Sitesi	2.9
2	Afacan Çocuk	2.4
3	Trt Çocuk Kanalı Resmi Web Sitesi	4.1
4	Şeker Çocuk Web Sitesi	2.8
5	Çocuk Kulübü	3.0
6	Doğuş Çocuk	4.2

6. Conclusion

In this study 6 children web sites are reviewed according to related literature, this literature review shows us children like bright colors, animations, pictures and big font size when browsing a web page, on the other hand they don't like spending too much time while navigating in the web site, small text size, scrolling and web sites that are not attractive for them. It is obvious from the evaluation average scores that children web sites in Turkey are far away from fulfilling the criteria. Only 2 of the children web sites are above the average score of 3.0, which is acceptable for web site evaluation scale used, therefore when designing a web site for children it must be considered that the preferences of children can strengthen the attractiveness of the web site and will motivate them to visit and revisit.

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