Chapter 14

Conclusion and Future Work in E-Reading Context

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ABSTRACT

This research is an attempt to examine the effect of reading processes on designing e-texts for children using Arabic script. In addition, it aims to develop a model for designing acceptance that will have the power to demonstrate acceptance and usage behaviour of the e-school text using a schoolbook for primary schools in Libya. Alternatively, dealing with the research problem led to the specification of the following research objectives, which were achieved through four inter-related surveys: to build an e-reading strategy for a schoolbook based on users’ cognitive and behaviour processes, to define the typographical variables that affect reading Arabic texts from the screen such as font size, font type, background color, line length and text format from a literature survey, to provide a standard that can help keep children’s concentration on the text, to create a guideline that could help designers when designing e-Arabic texts for children, to examine in-depth the challenges of reading Arabic e-texts, to study the efficiency of Arabic text reading and the factors impacting the efficiency of reading and comprehension, to understand children’s behaviour when reading from a screen. The aim of this chapter is to discuss the study’s contribution to knowledge and provide recommendations for future research.

SIGNIFICANCE OF THE STUDY

Several studies have reported that reading electronic text leads to changes in the reading and learning processes. This calls for research aimed at understanding the reading processes, cause of these changes, defining the requirements for meeting these changes, and then to connect it with the reading purpose. This in turn will lead to designing e-learning material that is able to meet readers’ requirements and educators. This study seeks to examine the general significance of the reading process of electronic text and the factors that affect reading Arabic electronic texts for children so as to provide a standard to help
the interface designer to design an interface that makes the user feel comfortable and work efficiently as well as developing a theory of presenting e-texts for children’s learning.

Thus, this study will be useful for at least three aspects; designing the electronic resources, e-reading, and educational aspect. In addition, understanding the proposed model may help analyse the reasons for the resistance toward the e-text and would also help to bring about efficient measures to improve reading on screen. In the same context, highlighting the reading stage in terms of the schoolbook will help consolidate factors such as the social and learning processes. Moreover, e-text will enable changes in the reading and learning processes. Also, reading an e-text can have several advantages over traditional reading as the reader or learner is able to apply animation in learning, and increase control and interaction with the learning material. All these will lead to improvement in the quality of learning. Thus, analysis of the text and connecting it with the reading purpose and reader’s skill will help meet those requirements that should be available when displaying texts on screen. In addition, the findings of this research can help build e-curricula that are easy and effective to be read and used by all Arabic learners.

On the other hand, most of the research on reading e-texts among children have been done in the context of Western languages e.g. (Reimer, Brimhall, Cao et al., 2009) and a few in Chinese e.g. (Tsai et al., 2008). This study extends the work already started by Asmaa Alsumait and Asma Al-Osaimi (NISO, 2005; Asmaa and Asma, 2009) using Arabic language. Both works have addressed a small part of the whole field without providing explanations to show how and when these factors can influence e-reading. Moreover, the quality of screen display is usually discussed in terms of the resolution, that is, the maximum number of dots or pixels. In this study, we try to examine all the factors that affect reading on screen such as presentation factors, reader factors and physical factors, but the main focus will be on factors related to displaying the text.

Contribution to Knowledge

The contribution of this research is mainly in the area of reading. This contribution is related to the gap reported in this area as reviewed in chapters (2) and (3). Furthermore, many studies have demonstrated the extent of interest in measuring the effectiveness of the use of electronic text in higher education and how to employ e-material by academic libraries without giving the same attention to the use of information technology (IT) in early learning. This means that most children’s e-books are not satisfactory as tools for supporting learning (Wilson, Landoni et al., 2003; Korat and Shamir, 2004).

In general, the objectives of research are to bring more qualitative results into a quantitative area, drawing a balance between quantity and quality of results and developing more effective information in the legibility area. The experimental findings demonstrated that;

- The questionnaire survey has evaluated the present situation of eBook and internet usage in primary schools based on the five schools in Libya as a sample population. This is supportive in terms of achieving a good awareness of how eBooks and the Internet are being managed by students and the reasons why students do, and do not, use eBooks and the Internet. The findings are of value to educators and designers who wish to increase eBook awareness and usage amongst students.
- The follow-up study findings are useful in considering students’ reactions and attitudes towards the schoolbook in two formats paper and eBooks, particularly on how students consult e-books for the learning purpose. The study is important, for designers in terms of improving eBook layout,