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Obstacles to Using E-Books in Higher Education

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ABSTRACT

Electronic books provide learners, lecturers and universities with an extra tool of instructions that can encourage or improve the learning process. The purpose of the current paper is to investigate obstacles students face in using e-books at the Saudi Electronic University. A mixed-method research design was used. Thirty students participated in two focus group sessions and 215 students participated in a self-developed survey designed to confirm the existence of obstacles revealed from qualitiave data. Results suggest that cost, eye-strain, and distractions were regarded as obstacles. Practices such as highlighting and taking notes were found to be limited. With the trend toward implementation of e-books in learning, e-book developers should consider factors that help students enjoy using the devices in education. Integrating multimedia, hyperlinks and other features of using technology in reading should be considered. Recommendations have been included in this study.

Key words: E-Books, Higher Education, Interactive Books, Obstacles

INTRODUCTION

In Saudi Arabia, the Saudi Electronic University (SEU) exclusively provides students with graduate and undergraduate degree programs specialized in distance education along with life-long education. It also affords them the finest educational applications and models, e-learning, and distance education techniques (Saudi Electronic University, 2011). It is crucial to note that SEU is linked with the Saudi Digital Library (SDL) in order to encourage the education process and serve university students and faculty in ways that provide information resources through the SDL digital gate. In addition, with more than 310,000 references on scientific sources, SDL is regarded as the largest scholastic institution collecting data sources in the Arab world in a manner that contains the whole academic areas (Fasi, 2018).

Lately, electronic books have been the focus of interest for a number of researchers (Conyers, Lambert, Wong, Jones, Bamkin, & Dalton, 2017; Romero-Otero, Iglesias-Fernández & Giménez-Toledo, 2013). Several studies recently conducted (Romero-Otero et al., 2013) by the university and research centers have shown the significance, the increasing use, and the continuous insertion of e-books into the academic and scientific fields. For example, Abutaleb (2012) pointed out that one of the requirements of a number of universities such as the University of California-Berkeley, the University of Minnesota, and other universities is about the use of e-books in particular courses.

Kang, Wang and Lin (2009) confirmed that the e-book is one of the new products of information technologies. For example, Casey (1994) found that e-books can link various kinds of representation of information such as verbal readings with printed text, pictures with sounds, and the use of subtitles in videos. Such e-books also offer huge flexibility, permitting students to establish speech rate, choose the availability of read aloud technique, and select the language provided in written and spoken form (Embong, Noor, Hashim, Ali, & Shaari, 2012).

It is worth mentioning that e-books consist of two major parts, namely devices and software. The first part, devices, is sometimes called readers or reader devices whether they involve desktop devices (PC), laptops, or personal digital assistant devices (PDA). The second part represents the software; it is responsible for the display of e-books on screens. E-books can be read using a PDA, PC or a reader particularly intended for this function (Ebied & Rahman, 2015). Hence, the electronic book offers both students and lecturers an additional instructional instrument that can enhance and support the process of learning and teaching.

There are many definitions of e-books. Vassiliou and Rowley (2008) defined e-books with reference to two parts including specific readers or access technologies. The first part of e-book gives a summary of the important fixed nature of e-books; it can be defined as a digital object with a text and additional contents. That definition stems from the incorporation of the familiar concept of a book having qualities that would probably be given in an electronic environment. As for the second component, it relates to the usage of reference materials, search and cross reference

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functions, monographs, hypertext, interactive dictionaries, bookmarks, links, highlights, multimedia objects and note taking. However, due to the wide progression in technology such qualities will be less powerful, so ongoing revision is a must. Armstrong, Edwards, and Lonsdale, (2002) introduced another definition which has been used by a number of researchers. Armstrong et al. (2002, p. 217) called e-books "[…] any piece of electronic text regardless of size or composition (a digital object), but excluding journal publications, made available electronically (or optically) for any device (handheld or desk-bound) that includes a screen."

It is crucial to indicate that the use of e-books is growing rapidly since e-books are progressively utilized by academic communities. Well-known publishers including John Wiley & Sons, Pearson, and McGraw-Hill are cooperating with universities to enlarge the acceptance of electronic books. In recent times, some universities charge mandatory course-materials which involve using an e-book course (Acker, 2011). Thus, the increased demand for e-books and mandatory use of e-books for some courses by colleges will extend e-book expansion into this new environment. Due to the continuous use of mobile devices in the K-12 level, Johnson, Smith, Willis, Levine, and Haywood (2011) pointed out that the 2011 Horizon Report provides a time frame of one year or less for school systems in order to launch e-books' vast use.

It should be noted that misconceptions and beliefs connected with such major issues, including accessible technological support for online education, teaching and learning online, the compensation required for supporting superior instructors, and finally students' needs and requirements all pose challenges for education planning documents and vision statements. Misconceptions begin to appear; a varied group of new e-learning technologies, namely electronic books, simulations, text messaging, blogs podcasting, and wikis starts to emerge (Embong, Noor, Rafek, Othman, & Khalid, 2014).

In response to technological developments, educators, institutions, and organizations shall plunge into strategic plans to integrate e-books in education (Embong et al., 2014). This paper will contribute directly to the knowledge base administrators will access in relation to the students' use of digital textbooks. Decision makers, represented by the Ministry of Education and Universities Administrations, require actual survey data to make plans and determine the best strategy for the transition to the era of electronic books. Launching initiatives to support specialists designing e-books as a substitute for printed books are required as well. It is important to note that at elementary level research has dealt with information concerning student achievement and it has only involved kindergarteners up to fifth graders (Larson, 2010; Rhodes & Milby, 2007; Shamir, 2009). However, research at the collegiate level has dealt with the significance, the rapid growth of use, and the gradual entrance of e-books in the scientific and academic areas (Romero-Otero et al., 2013; Amari & Shabl, 2012; Ebied & Rahman, 2015). So far, none of these studies has dealt with obstacles students experience in e-books adoption at Saudi Electronic University.

Saudi Electronic University (SEU) recently implemented e-books in some courses for the advantages of such technology cited in the literature. This was important especially with the university's vision of utilizing technology. One of the main objectives mentioned in the university's website was "To offer higher education based on the best applications and technologies of e-learning, to transfer and localize knowledge" (https://www.seu.edu.sa, 2019, para3). Romero-Otero et al. (2013) affirmed that various studies have been conducted relating to the significance, rapid growth of use, and gradual entrance of e-books into the scientific and academic areas, particularly, university and research centers. Such scientific research has shown the advantages connected to e-book integration. Other studies have recognized the effectiveness of e-books on students' achievement (Amari & Shabl, 2012) and their creative thinking (Abdul Karim, 2011). However, limitations have been highlighted in the literature in connection to obstacles students have faced relating to e-books adoption at Saudi Electronic University. For example, there have been substantial negative reports concerning the ease of e-books reading. It has been found that general discomfort when reading e-books as well as eye fatigue have been reported by students (Clark, Goodwin, Samuelson, & Coker, 2008; Jamali, Nicholas, & Rowlands, 2009; Kang et al., 2009; Gunter, 2005; Rockinson-Szapkiw, Holder, & Dunn, 2011).

It is important to investigate potential obstacles to the adoption of e-books experienced by students at the Saudi Electronic University since there are few studies discussing such issue. This research aims to answer the following research question:

- What are the obstacles to the use of e-books as experienced by the students at the Saudi Electronic University?

LITERATURE REVIEW

The employment of technology is regarded as an effective fundamental element in education. Institutions concerned with learning have increasingly adopted e-books as a medium of learning and teaching. The growing significance and use of e-books have been found in the academic sector (Conyers et al., 2017; Romero-Otero et al., 2013). Thus, organizations and institutins have been working on strategic schemes to integrate e-books into education (Embong et al., 2014).

The Transition to E-Books

A remarkable expansion of e-book use has been noted recently. Grudzien and Casey (2008) pointed out that in 2002 the sales of e-books began at under $2 million per quarter. By 2008, the sales had dramatically increased to $8 million per quarter. It is interesting to note that the sales in Amazon's site reached 105 e-books for every 100 traditional print books in April 2011 (Miller & Bosman, 2011). Moreover, Miller and Bosman (2011) noted that Amazon predicted that within a decade print version would be fewer than 25% of books sold. It has been projected that over the next three years, e-books used by faculty and students will increase noticeably (Becker, 2010). However, despite the expansion of e-books in general, e-textbooks still represent a weak percentage of book sales in general. Electronic textbooks,

for instance, have been growing at a rate of 49% by 2013, whereas 11% of all textbooks were sold (Murray & Perez, 2011). Smith and Caruso (2010) stated that a 2010 Educause survey showed that most college learners own computers and phones and 89% of them have laptops. This adds more burden on publishers to offer accessible materials utilizing laptops, tablets, and smartphones (Chesser, 2011). It is crucial to indicate that Murray and Perez (2011) expected that by 2013 the devotion to electronic textbooks will gain small percentage (11%), whereas Reynolds (2011) predicted seven years for the dominance of electronic textbooks. South Korea, a country that has increasingly transitioned to the electronic format, stated a purpose aiming at making all textbooks electronic by the year 2015 (Eason, 2011). This affirmation has strongly urged countries, involving the U.S., to expand the materials devoted to digital learning (Eason, 2011). In a word, the movement from printed textbooks to digital books has noticeably occurred and will continue to expand.

The Ministry of Education in Saudi Arabia has created available digital textbooks via a special portal to make sure that the location is accessible to all students. This action is part of the efforts by the ministry to provide digital technology adoption in the education sector. It should be indicated that Saudi Arabia has recently pledged to increase its literacy rate from 94.4 % to 100 % (ARAB NEWS, 2018).

College Libraries and Distance Learning

The electronic transition has been introduced by library systems in university and college libraries. For example, in U.S.A, it has been noted that the University of Houston has made a transition with over 400,000 electronic books (Wu & Mitchell, 2010). Moreover, Martin and Mundle (2009) stated that the University of Illinois has moved to adopting over 250,000 digital books. Over 50,000 e-books have been used by Sam Houston State University (Korah, Cassidy, Elmore, & Jerabek, 2009). In their study, Korah et al. (2009) conducted a survey of 552 university and college libraries. The researchers found that more than 88% of the libraries included e-books in their collections, and 45% of those surveyed had more than 10,000 e-books.

As for distance learning, its implementation is obvious in libraries that serve learners in distance learning programs. Hutton (2008) confirmed that schools that provide programs in distance learning ought to make sure that their online students enjoy access to books equal to that of traditional students. The e-book format should fit this need as well. In Canada, Royal Roads University transitioned from a traditional school, brick and mortar school that only served residential students and moved to a new digital one. Now 80% of students and faculty use distance learning (Croft & Davis, 2010). To meet such transition in admission, the library has been urged to make noticeable adaptation ensuring that all university professors as well as all students still have access to a traditional collegiate-quality library. Croft and Davis (2010) noted that in 2009, the library of Royal Roads University made a transition to 55,000 e-books and there were no more than 48,000 printed textbooks.

E-Books in Learning Environments: E-Books in University Courses

Regarding university experiments, the University of Texas made an investigation in which Amazon's Kindle e-reader was offered to 1200 students as a replacement for traditional textbooks. In that investigation, screen size was listed as a critical restriction by students (Butler, 2009). The devices were unsuitable for most textbooks because the screens were too small and were particularly problematic with science texts. It should be noted that at Northwest Missouri State University a 500-student trial changed printed books for digital ones adopting Sony e-readers; the aim has been to utilize digital books for the whole courses in a five-year period (Butler, 2009). Furthermore, at the University of Washington, Polanka (2011) conducted a research tackling student in their first-year academy. That study investigated Kindle DX utilization and the whole students started using the Kindle DX concerning their academic reading. Seven months later, 40% of the students continued to use the device. In that study, students who were still using the Kindle made a list of the demand to read near a computer to take notes as well as finding references. The same researcher affirmed that the sample size was the main limitation found in that study; there were less than 40 participants. In another experiment at the University of Illinois, Williams and Dittmer (2009) pointed out that nursing students were offered admittance to e-books on their electronic devices. The focus of their trial was on the applicable levels of accessibility and portability. In the trial, students cited bedside access to information as a critical advantage. However, they chose the confined eight-hour battery life of their electronic instruments as a remarkable challenge due to the fact that nursing shifts were generally far longer.

Benefits and Drawbacks of E-books

Due to the fast-growing number of e-book users, benefits and drawbacks of the devices have been a controversial issue among scholars. In literature, a number of studies enhance the effective and significant use of e-books in the learning process. For instance, one study affirmed that the use of e-books is notably effective in expanding the level of first-grade students' achievement of high school in reading courses (Amari & Shabl, 2012). Another study conducted in Oman by Abdul Karim (2011) confirmed that self-learning given by computer and digital books is highly effective in developing creative thinking in students of second-grade science at the Faculty of Education. Moreover, research found that the diversity of interface e-book interaction has been effective concerning skill performance and academic achievement for Master students' attitude of educational technology (Alzaq, 2008). Embong et al. (2012) conducted a study showing the effectiveness of e-books in cultivating the production of multi-media presentation skills for teachers. The results of Embong et al's study (2012) have been commensurate with Chau's study (2008). The latter study found there are positive effects of e-books planned for young learners' education. The study revealed that e-books and its benefits in the education field are wholly similar to a rich land specified for teaching various ages.

Furthermore, the most crucial benefit of e-books is that large numbers of books can be kept even in flash memories with low capacity (Wittmann, 2000). This is why learners or users choose to use e-books instead of carrying heavy books every day when going to universities, colleges or schools (Poftak, 2001). It is easy to preserve and store e-books as they take up so little physical space compared to printed books (Palmer & Donaldson, 2001). This goes in line with the fact that e-books help save hundreds of reams of paper which avoids the cutting of trees (Rukancı & Anameric, 2003). Another advantage is that digital books will reduce the cost of publication as well as help in introducing new authors and writers (Day, 2001). Moreover, Day (2001) stated that the problems with small-font size in printed books can be avoided since the font-size in electronic reading devices can be adjusted. Rukanci and Anameric (2003) pointed out that e-book reader devices permit users and learners to read in the dark due to the background light.

In the same thread, Keeton (2004) examined effective digital books instructional practices in higher education on the basis of effectual teaching practices structures in face-to-face instruction. The same researcher interviewed faculty in post-secondary institutions. It is important to note that the faculty ranked the effectiveness of online instructional methods. Higher rankings were given by these faculty members to online educational techniques that coined an environment, encouraging and enhancing inquiry, broadening learners' experience towards the intended issue, and eliciting active and critical expression from learners regarding their increasing experience structure (Bonk, 2001). Additionally, in Kim, Bonk, and Zeng's (2005) study, the researchers focused on pedagogical practices and found that no more than 23-45 percent of the online educators surveyed adopted online activities concerned with hands-on performances, crucial and innovative thinking, interactive labs, scientific simulations, and data evaluation. However, in online learning environments, 40 percent of the participants stated that those activities were highly essential. In the past decade, several initiatives have sought to integrate the increasing Internet technologies in higher education into teaching and learning approaches. Cases have been reported in connection with the use of websites to boost students' representation and effort. It is interesting that some experts have affirmed the plausibility of using wikisa website that permits collaborative editing of its content and structure by its users (Embong et al., 2014)

In Saudi Arabia, Ebied and Rahman (2015) conducted a study investigating the influence of interactive e-books on student achievement in a computer in education course at Najran University. A quasi-experimental design was adopted in their research. The dependent variable was viewed in the achievement influenced by experimental treatment. It should be noted that 60 fifth-level students from Najran University form the sample of the study. Students were divided into two groups. Students in the experimental group took the computer in instructional course through e-books version of the text; the students in the control group studied the computer in instructional course through the printed text. The findings showed noticeable differences between the two groups with respect to academic achievement in favor of students who experienced the e-books' trial.

Recent research studies not only identify the advantages, but they also reveal the disadvantages of using e-books. For example, Shrimplin, Revelle, Hurst, and Messner (2011, p. 182) stated that "literature indicates a complex and somewhat contradictory landscape of attitudes and opinions about the medium. While several studies have indicated generally positive views of electronic books, many reflect mixed or quite negative user responses". One remarkable drawback of e-books is that users are likely to encounter eye-strain or headaches because of the low screen resolutions of these devices. They buy cheap e-book reader devices (Herring, 2001).

Another concern is the matter of copy-right and illegal distribution of e-books which creates problems with commercial e-books and business concerns (Arch, 2012; Hodges, Preston, & Hamilton, 2010; Palmer & Donaldson, 2001). It is crucial to beware of the software backup of e-books as well as e-book readers because one standard specified for the formats encouraged by e-book readers does not exist (Herlihy & Yi, 2010; Su, 2005; Rukanci & Anameric, 2003). In addition, Conyers et al. (2017) contended that one of the major challenges for an e-book title is the lack of a common identifier. It does not carry the same ISBN or e-ISBN available through publishers or aggregators since part of a package usually has discrepant ISBNs or e-ISBNs on a small scale.

Due to the technologies deployed in the initial devices planned by institutions to read e-books and due to the problems faced by the user, new designs and forms were formed on the basis of traditional book readers' interpretations (Yalman, 2015). Thus, the obstacles with the classical commercial products were tackled and the new versions had improved new functions. LED background lighting permitted reading in low-light conditions and larger font size accommodated visually impaired readers (Siegenthaler, Wurtz, & Groner, 2010). In spite of the improvements and progress of technology, research has confirmed that technological drawbaks in devices used to read e-books are considered critical obstacles to the use of e-books (Slater, 2010; Wilkie & Harris, 2010). Along those same lines, other studies showed that some students showed a preference for classical printed books (Kang et al., 2009; Rockinson-Szapkiw et al., 2011; Shepperd, Grace, & Koch, 2008; Woody, Daniel, & Baker, 2010). It has also been found that there are multiple distractions when students use computers (Kelley & Warburton, 2011).

In short, based on the studies mentioned earlier on the utilization of e-books in higher education, it has been found that there are few studies tackling potential obstacles experienced by students. Therefore, the current study aims to contribute to the knowledge in relation to the students' use of digital e-books.

METHOD

Study Design

A mixed-method research design was used in this study. With this method the researcher uses explanatory sequential design data collection of quantitative data from a focus group.

The data then were analyzed and used to develop a survey (Creswell & Clark, 2018) which enhanced the objectivity and holistic nature of the survey (Onwuegbuzie, Bustamante, & Nelson, 2010). Using qualitative data also improved the developing of the survey's items. This mixed-method approach provides the researcher with in-depth understanding of the qualitative data while the quantitative data gives a broad view of the data. Thus, data collected by both methods were related, not independent. Mixed-method design was used to maximize the interpretation of the data and provide significant enhancement (Onwuegbuzie et al., 2010).

Participants and Data Collection

The qualitative phase of the study used the information provided by the focus group. Homogeneous convenience sampling strategy was applied to select a nonprobabilistic, purposeful sampling (Creswell, Clark, 2018) of students enrolled in a Computer Sciences Essential course in which the text was an e-book. This kind of sampling fulfilled the research needs. They were voluntary participants in the focus group sessions. After obtaining the required permission from the university as well as from the interviewees, the researcher conducted a two-session focus group with 30 students. Their ages ranged from 20 to 25 years. The participants were asked to reflect on their experience with integration of e-books into the course and how they were used. During the sessions the researcher took notes and made audio recordings of the sessions. The data were then transcribed and organized in a word-processing document, with notes of initial thoughts to develop general understanding of the material.

Since the design of the study was an explanatory sequential one, the researcher elected to have the participants who participated in the qualitative data collection participate in the quantitative data collection as well, as Creswell and Clark (2018) recommended. After IRB was obtained from SEU, the survey was sent via email to 17 sections of the Computer Sciences Essential course in on a males-only campus. The students in all sections totaled 694. The email included an explanation of the purpose of the survey and a statement that the participation was voluntarily. It included a link to the online survey and stated that clicking on the link would reflect agreement to participate. The response rate was 31% with 215 students responding to the survey.

Data Analysis

During the qualitative data analysis, the literature was reviewed. Obstacles mentioned in previous studies were considered when reading the data. The researcher grouped the participants' comments, sentences, and words into categories to develop themes. In this way, a deductive review of literature combined with an inductive approach was used to read the data. Drawing on a simple observation, themes were developed based on Word repetitions, key-indigenous terms techniques. Themes then were grouped into two constructs: obstacles and features. Some participants' quotations were used in the second phase as items for the survey. Examples of such quotes are presented in Table 1

The Statistical Package for Social Science (SPSS 21.0) was used to analyze the quantitative data. Frequencies, percentages, mean, and standard deviation were calculated for items. Responses to each item were measured on a five-point Likert scale ("strongly agree" =5 points, "strongly disagree" =1 point). The questionnaire was reviewed for validity by five members of the educational technology field faculty. Based on their feedback, two items were deleted while few were edited to be clearer. Cronbach's Alpha Coefficient for internal consistency was used to examine the reliability of the questionnaire. The questionnaire included two constructs: Obstacles and Features. Thirteen items examined Obstacles and 10 items examined Features (Table 2 and Table 3). The reliability of the Obstacles construct was.89 and the reliability of the Features construct was.81 (Table 4) both of which are acceptable levels for Cronbach's Alpha.

RESULTS AND DISCUSSION

The study aim was to investigate the obstacles that face students at Saudi Electronic University, especially in the CS course in which they recently experienced the use of an e-book for their course. Finding of qualitative and quantitative data was consonant. The mean of all items was higher than 2.8, reflecting agreement with items which were developed based on data collected from focus group sessions. This makes a significance enhancement (Onwuegbuzie et al., 2010) of the mixed-method approach. Items that had a mean larger than 3.5 were considered as obstacles.

The e-book's price: Although the literature cited that digital versions of printed books would reduce the publication cost of books (Day, 2001) which would, in turn, reduce the price of e-books, the participants stated that the *price of the e-book* was an obstacle. Item 9 showed that 74% of participants agreed that the e-book price was high ($M = 4$). This result agreed with what was found by other studies ((Acker, 2011). Students had to pay 200 SAR (around 53 USD) for the e-book. Although it has interactive educational material as well as integration of audio and video, students did not perceive that as valuable enough to justify the price increase. Before using e-books for the CS course, students paid 75 SAR (around 20 USD) for traditional textbooks. This could be why they consider the e-book expensive. Participants at the focus group session considered the e-book expensive because that they didn't own it at the end of the semester. They only had access to it via the learning management system.

The *studying practice* construct seemed to create obstacles for the students, too. At the qualitative phase of collecting data, more than one participant stated that "it is hard to take notes on the e-book". The quantitative phase showed that taking notes on the e-book was difficult for 68% of participants. 65% of them found highlighting was difficult. Sonme participants at the focuse group stated that highlighting texts is important feature for them and their e-book does not provide it for them which making studing harded. 70 % stated that studying from the e-book was distracting which agreed with another study (Kelley & Warburton, 2011). Digital devices cause multiple distractions for students A student explained that because he was not used to studying

Table 1. Qualitative Data

Quotations from respondents	Theme	Item #	Survey's element
"It is difficult to study for a long time because the screen strains the eye"; "reading from a screen can cause health problems because the impact of radiation on the eye"	Health issues	1	Reading from a computer screen harms the eyes
"high speed Internet is required to be able to open it"	The need for Internet	2	I face a problem opening an e-book due to poor Internet
"The internet availability because we can't download the book as a file and work on it off-line"		13	The e-book cannot be downloaded on the device and viewed without Internet
"it is hard to take notes on the e-book"	Study practices	3	I face problems writing notes to the e-book
"I'm not used to studying from an electronic device so it was hard for me to do so"; "the idea of studying from an e-book is not acceptable for me, I face a hard time studying for this course"		6	The use of the e-book for studying distracts me
"changing colors and highlighting texts is not easy"		4	I have problems highlighting the important information in the e-book
"some video clips took a long time to play"	Technical issues	5	I face a problem playing video recordings in the e-book
"sometimes it does not work when I use a different device other than mine"		10	E-book does not work on all types of computers
"browsing and navigating the units of the book is tough"		8	I have difficulty with browsing the e-book
"sometimes I had to open it from more than browser to get the chance to view it"		11	E-book does not work on all kinds of browsers
"It is expensive, especially when the person does not own it after the completion of the course, it would be better if there was a rental option"	Expensive	9	I think the e-book's price is high
"I can't print the pages that I want to study"	Copyright issue	12	Content cannot be printed from the e-book
"you have to log in the LMS first before you are able reach the book"		7	I have difficulty accessing the e-book within the Learning Management System (i.e. Blackboard)
"Content is available to me anytime and anywhere; no need to carry the book with me wherever I go"	Accessibility	14	I can access the e-book anywhere
"Can be used anywhere but with the availability of the Internet"		15	I can access the e-book at any time
To be honest, I wished I had used the e-book from the first day of school		16	In favor of the e-book, no need to carry heavy books
"it can supplement the text content with video and audio which can't be done with a traditional book"	Educational issues	17	I think the e-book provides a variety of educational materials (video, sound, etc.)
"some topics were presented in an audio form which I like most about the e-book, I prefer having someone tell me the information rather than reading it"		18	I think the e-book fits the learning styles (visual and audio)
"I enjoy working with the e-book, it looks neat and everything is clear"		22	I think the use of e-book is enjoyable
"It makes navigation easy, I can get the information I need directly"	Ease of use	19	I think the e-book makes it easy to find the information I need
		20	I think the e-book is easy to browse
"It makes us deal with technology more and develop our skills"	Enhance technical skills	21	I think the e-book develops my technical skills

in such a way, he was bored and couldn't continue reading more than five minutes so he started browsing other websites

The *need for the internet* was another obstacle with students, they couldn't access the e-book unless they logged on to the LMS which required internet service. More than two-thirds (71%) of them found this to be a disadvantage. Qualitative data showed that they couldn't get a PDF form of the book or print some pages which ment the need for internet each time students had to read the e-book. The *health question was* also raised as 61% of the participants agreed that reading from a computer screen caused eye-strain. One participant explained that "reading from a screen can cause

health problems because the impact of radiation on the eye" This obstacle was cited in previous studies, too (Arch 2012; Butler, 2009; Herring, 2001; Hodges et al., 2010; Palmer & Donaldson, 2001)

Technology issues did not seem to cause a problem for participants. Students use their mobile easily and comfortably so browsing the e-book was easy, especially at their ages. Only 40% faced problems playing video recordings on the e-book; 47% had difficulty browsing the e-book; and 35% stated that the e-book failed to work on all kinds of browsers they used.

In terms of opportunities offered by the e-book, carrying out one digital device to do all the work needed for school was a favorable feature for students. One student stated that "I wished I had used the e-book from the first day of school". More than half (60%) of students like its accessibility. One student explained that "content is available to me anytime and anywhere; no need to carry the book with me wherever I go". Almost two in three (70%) students also like the education issues such as video and audio fit their learning style. One participant explained that e-books "can supplement the text content with video and audio which can't be done with a traditional book". It also can provide information through different ways that match different learning styles of learnres ans one of them stated "some topics were presented in an audio form which I like most about the e-book, I prefer having someone tell me the information rather than reading it".

The ease of use was another feature of e-book that student. As one student stated, "It makes navigation easy; I can get the information I need directly". The two items that obtained the least agreement were about enjoying the e-book. Only 43% agreed that using the e-book was enjoyable. In general, students did not prefer e-books over traditional books. Only 38 % of participants agreed with the statement "I prefer the use of e-book to the traditional one" which was cited by other studies (Kang et al., 2009; Rockinson-Szapkiw et. al., 2011; Shepperd, Grace, & Koch, 2008; Woody, Daniel, & Baker, 2010). With the movement to digital books, this result suggested that more effort should be made to help students enjoy reading from e-books and value their advantages. More research is needed to explore ways in which e-books can meet students' expectations.

Table 3 and Table 4 represent percentage of participants' responses to the items of the two constracts of the survey (obstacles and features) as well as their means and standard deviations.

Table 2. Reliability of Instrument

	Construct	Number of Items	Cronbach's alpha
1	Obstacles	13	.89
2	Features	10	.81

Table 3. Descriptive Statistics Results of Participants' Responses to the Items about Obstacles

	Items	SA	A	N	D	SD	*M*	*Sd*
1	Reading from a computer screen harms my eyes	79 37%	52 24%	43 20%	17 8%	24 11%	3.6	1.4
2	I have a problem opening an e-book due to poor internet availability	34 16%	54 25%	50 23%	32 15%	45 21%	2.8	1.4
3	I face problems writing notes on the e-book	86 40%	60 28%	32 15%	26 12%	11 5%	3.8	1.2
4	I have problem in highlighting the important information in the e-book	78 36%	62 29%	30 14%	28 13%	17 8%	3.7	1.3
5	I face a problem playing video recordings on the e-book	26 12%	60 28%	71 33%	39 18%	19 9%	3.0	1.1
6	Using e-book for studying distracts me	95 44%	56 26%	21 10%	19 9%	24 11%	3.8	1.4
7	I have difficulty accessing the e-book within the Learning Management System (i.e. Blackboard)	41 19%	50 23%	47 22%	28 13%	49 23%	2.9	1.4
8	I have difficulty browsing the e-book	41 19%	60 28%	34 16%	47 22%	32 15%	3.0	1.4
9	I think the e-book's price is high	103 48%	56 26%	28 13%	11 5%	17 8%	4	1.3
10	E-book does not work on all types of computers	28 13%	52 24%	62 29%	39 18%	34 16%	2.9	1.2
11	E-book does not work on all kinds of browsers	34 16%	41 19%	86 40%	28 13%	26 12%	3.0	1.2
12	Content cannot be printed from the e-book which is a problem	86 40%	49 23%	47 22%	9 4%	24 11%	3.7	1.3
13	The e-book cannot be downloaded on the device or viewed without the internet	95 44%	58 27%	28 13%	13 6%	21 10%	3.8	1.3

Table 4. Descriptive Statistics Results of Participants' Responses to the Features Items

	Items	SA	A	N	D	SD	*M*	*Sd*
14	I can access the e-book anywhere	67 31%	75 35%	37 17%	19 9%	17 8%	3.7	1.3
15	I can access the e-book at any time	78 36%	58 27%	34 16%	26 12%	19 9%	3.6	1.3
16	In favor of the e-book, no need to carry heavy books	95 44%	54 25%	21 10%	28 13%	17 8%	3.8	1.4
17	I think the e-book provides a variety of educational materials (video, sound, etc.)	71 33%	82 38%	30 14%	17 8%	15 7%	3.8	1.2
18	I think the e-book fits the learning styles (visual and audio)	71 33%	58 27%	43 20%	24 11%	19 9%	3.6	1.3
19	I think the e-book makes it easy to find the information I need	71 33%	69 32%	43 20%	24 11%	9 4%	3.7	1.1
20	I think the e-book is easy to browse	50 23%	58 27%	56 26%	34 16%	17 8%	3.3	1.2
21	I think the e-book develops my technical skills	56 26%	71 33%	43 20%	32 15%	13 6%	3.5	1.2
22	I think the e-book is enjoyable	43 20%	50 23%	43 20%	45 21%	34 16%	3.0	1.4
23	I prefer to use e-books to the traditional ones	50 23%	32 15%	39 18%	30 14%	64 30%	2.7	1.5

CONCLUSUION

The study aimed to explore obstacles to using e-books as mandatory educational material in a university level course at Saudi Electronic University (SEU). With the explanatory sequential design, quantitative as well as qaulitiave data were collected to enhance the validity of data. It also provided in-depth understanding of collected data. Results revealed obstacles such as the high cost of the e-books that students had to pay, eye-strain, and distraction of using them. Students also were not satisfied with using e-books for highlighting and bookmarking. However, the study was limited by investigating the use of an e-book which was used in a course and provided by just one provider. The study did not consider other companies or e-books providing different designs. Educational institutions should find ways to reduce the cost of e-books for students. With the movement toward digital books, this result suggested that more effort should be made to help students enjoy reading from e-books and to value their advantages. More research is needed to explore ways in which e-books can meet students' expectations and make the learning experience with them more enjoyable.

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