An Investigation of the Digital Teaching Book Compared to Traditional Books in Distance Education of Teacher Education Programs

Rahme Uygarer
Near East University, NORTH CYPRUS

Hüseyin Uzunboylu
Near East University, NORTH CYPRUS

ABSTRACT

The present study aimed to investigate the efficiency level of digital teaching materials for higher education programs. The present study had a mixed research methodology to gather in-depth and rich context. Twenty participants were chosen from a distance education program of the Pedagogical Formation (2014-2015) at Near East University in Nicosia in North Cyprus. The sample of the present study was selected by using the purposeful sampling method. The participants who took the course (instructional technology and material design), half of them used electronic sources and the other half used traditional sources during the distance education. The participants' answers were categorized into who was taking distance education with digital materials and who was taking distance education with non-digital materials. The results indicate that the participants were aware of the facilities of using e-books and they were content with the facilities of using an electronic book. The participants' view show that using electronic book has function on being successful and interactive in their education. At the same time, using electronic book provide chances to students reach multiple sources. Thus, the participants' answers in qualitative data also indicate that using multimedia is necessity to increase level of motivation students in their study and using electronic book and electronic sources provide unlimited learning platforms for students. Thus, students' level of attention and permanent learning are increased.

Keywords: attention, electronic book, interactivity, motivation, multiplicity, multimedia, permanent information

INTRODUCTION AND BACKGROUND

In the 21st Century, new information and communication technologies have rapidly improved and influenced every system all around world. Internet technology has become an inevitable part of our lives and it takes an important place and role in every system of our lives, such as in the education systems (Lissitsa & Svetlana, 2016). Educational systems worldwide have been influenced by new information and communication technologies. Therefore, educational systems worldwide rapidly growing and have been required to use the new information and communication technologies to teach students the knowledge and skills, which they will need in this age. Thus, the development of Internet technology is obviously visible in the field of education because it has taken an enormous place in the contemporary education system and Internet technology is a main resource for the current generation's

Correspondence: Rahme Uygarer, *Near East University, Faculty of Education, Department of Computer Education and Instructional Technologies, North Cyprus*
✉ rahmeuygarerr@gmail.com

State of the literature

- The literature asserts that the place of the Internet and new development of technology has become an inevitable part of education systems. Therefore, every level of the education process needs to be updated via new development with respect to technology.
- The literature points out that learning and teaching are influenced by new development technology. For example, the learning platforms are changing from offline platforms to online platforms. The importance of distance education is also highlighted.
- The literature shows that distance education platforms carry important meaning which is available for everyone who wants to study because online education and online sources provide alternatives to conventional teaching and learning.

Contribution of this paper to the literature

- This study initially contributes to the place of online platforms for education and highlights the role of Moodle, YouTube and the BigBlueButton in distance education.
- The study points out the role of multiple platforms for interactive learning experiences to increase the level of self-learning and motivation to have expected success with respect to electronic resources.
- The study asserts that the role of using electronic resources instead of traditional sources tends to increase the level of success and motivation. Therefore, InDesign software was used to design an electronic book for the sample education program.

students (Wang, Hsu, Campbell, Coster & Longhurst, 2014). For example, computer mediated communication brings new dimension into educational systems and computer-mediated communication in the educational system is one of the well-known developments on the Internet platforms for teachers and students, as well as distance education. In this context, improved, distance education in developing universities provides significant and meaningful advantages for both undergraduate and graduate students. For this reason, the types of teaching materials have a significant meaning for the successful education of students in distance education system as well as traditional education system. With the help of the Internet and Internet technology, facilities and types of teaching materials have rapidly changed and the alternatives available have increased. This is because technology has a great influence on people who are looking for alternatives to meet their needs in every phase of their lives.

As it has been mentioned above, computer mediated communication brings new dimension in education systems. Indeed, the history of computer-mediated communication is not new, but it will be really understandable in the light of developments in the field of communication and new communication technologies and using in education systems. In the first place, computer-mediated communication initially provides the chance for students to be interactive, rather than being passive in traditional education. Students do not look like the oldest students who are taught in traditional ways. Today's students have chance to reach information in a variety ways and in the field of education, computer-mediated communication is being used as new teaching and new learning platforms and resources (Chang, 2007). Thus, computer-mediated communication has become a starting point for distance education, and computer-mediated communication has recently become more popular and has attracted large of numbers of people with the development of Internet technology (Riva & Galimberti, 1997). By using computer-mediated communication, students initially became interactive in their relationships but now; the rapid development of computer-mediated communication has lead them to communicate simultaneously (Wood, 2015). This development shifts to education systems, as mentioned above, distance education is a well-known form of computer-mediated education. In this sense, the Internet based technologies and the World Wide Web are the main foundation for the learning platforms, especially online learning platforms. Internet technology has become an inevitable part of the field of education because it provides more choices, and greater alternatives for flexibility in the process of teaching and learning. Indeed, ways of learning and platforms of learning are changing with the development of Internet technology since education has been reformed with the birth of the Internet (Conley & Udry, 2010). Thus, learning is now not merely based on traditional ways of teaching. Almost all students are

familiar with Internet technology and they generally use the Internet facilities to maintain and fulfill the needs of schools.

Virtual teaching is taking place with respect to Internet technology. For example, methods of teaching are changing 'dramatically from plain lectures to multimedia presentations' (Tham & Werner, 2005). The development of the Internet technology can be assumed to be an essential platform to increase the efficiency level of teaching and learning.

In addition to the contribution of traditional classrooms, with the help Internet technology, distance education has now become a popular method of learning and nowadays distance education can be assumed to be an important bridge to provide higher education for many universities (Hassan, Hassan, Dahalan, Zakaria & Wan Mohd Noor, 2009; Meyer, 2002). Thus, distance education has the common characteristics of traditional courses and helps students to meet new variables in teaching and education (Benigno & Trentin, 2000).

Distance education is well known as computer-mediated communication in the field of education. Formalization of instructional learning is done with the development of Internet technology. Thus, students do not have to limit themselves with time or their geographic situations. With the help of distance education, students can attend courses online (King, Young, Drivere-Richmond & Schrader, 2004). The power of distance education regarding expanding their time and geographic situations provides convenient ways for learners to learn (Moore & Kearsley, 1996). Distance education does not replace campus education; however, it does provide flexibility with attractive alternatives for learners who are not able, or do not want to, participate in offline, on-campus education. Large numbers of programmers have worked to create distance education platforms for the students. Distance education has become one of the most appropriate elements in lifelong learning (Schneller & Holmberg, 2014).

Moodle is one of the well-known online education platforms and it was developed by Martin Dougiamas and is abbreviation of 'Modular Object Oriented Term Developmental Learning Environment' (Moodle). MOODLE is one of the most used distance education platforms and is a course management system and platform for delivering online education and distance education. MOODLE also lets instructors plan their courses for the students (Yousif, 2012). It is a Course Management System accessed via the Internet and is a free web application, which teachers and educators can use to create effective online learning sites. Moodle allows any user with programming knowledge to modify an environment according to the users' needs. In the higher education environment, Moodle has been used to conduct courses fully online or to support on-campus teaching and learning (Moodle, 2017).

Another possible distance education platform is YouTube, which is a website that includes thousands of videos. YouTube is an excellent resource for teachers and learners in every discipline (Robinson, 2011). "YouTube makes new demands on learning and they provide new supports to learning, even as they also dismantle some of the learning supports upon which education has depended in the past" (Duffy, 2008). This is because distance learning has been moved towards an on-line delivery or a combination of various media (Motteram & Forrester, 2005).

BigBlueButton (BBB) is also another online education platform and a web-based program, which enables instructors to set up an online class collaboration session. Also, people can participate in the sessions so that they do not have to come onto campus. Thus, BBB allows instructors to have the ability to interact with their students' lives, rather than relying on cuLearn announcements, emails, or waiting until the next class to deliver pertinent information (BigBlueButton, 2017).

Electronic books (e-books) have now started to be used in education and have quickly become popular in higher education. According to Amazon, in 2011 their customers bought more e-books than printed books (Cain, Miller & Bosman, 2011). More users can access e-books whenever and wherever they wish by downloading the content to their devices from any online site, which offers such files (Wu & Chen, 2011; Vasileiou & Ali, 2009; Gebregriorgis & Altmann, 2015). Daily print reading may be undergoing a dramatic transformation to reading in digital format because of the widespread use of the Internet and mobile devices. Also, electronic textbooks can be a more powerful learning resource if they also provide interactive learning activities, video segments, or review

quizzes to reinforce important instructional concepts. Thus, these facilities help to enhance learning resources and help them to have the potential to accelerate student learning (Rickman et al., 2009). The InDesign program is used for research due to the design of the electronic book. InDesign is more popular every day because of this program's accessibility and simplicity. This program is used to make page breaks, which provides users with various possibilities, including editing text and graphics and transparency effects in order to export files into a .pdf format. With help of the program, users have numerous possibilities for making and editing objects, graphics and text (Brajković, 2012).

Today, Internet technology has an importance in education platforms and the numbers of facilities have increased. The views of future teachers are crucial about electronic resources in the education system because they will come across Internet technology facilities in the education environment. Therefore, the aim of the present study is to reveal importance and efficiency level of using electronic sources (designed electronic book by researcher and preparing electronic sources) in for the graduate student who study in distance education pedagogical formation certificate program.

The objectives of the present study:

- To reveal participants' views on using electronic sources;
- To compare participants' views between using electronic sources and traditional sources;
- To show the importance of Internet technology in post-graduate education programs.

To foster learning through the use of technology, it is useful to examine the pedagogical principles behind teaching and learning with the Internet and computer technologies. The motivation of the research was to emphasize the place of novelties in life, as well as the continuity of the need for technology in every platform of life, not only in education. For simple information, it is possible to use social networking sites for content and they are an easy way of learning when students need to learn fast. The age of the students was used for learning, based on the Internet platforms. Therefore, an Internet technology-based source was the main requirement for the group of students that provided the chance for the students to find information all in one place. The design of the electronic book involves an all-in-one piece of technology for the students, just like a Smartphone or tablet.

METHODOLOGY

In this section, the methodology of the paper is given under the subtitle of the research methodology, research design, population and sample, data collection, data analysis and ethics. The research methodology of the present study was a mixed methods approach. The aim of the chosen mixed research methodology was to provide comprehensive and in-depth information on the objectives of the present study.

Research Methodology

The research design was a case study used to focus on the participants to indicate their views and attitudes on using a designed electronic book during the distance education pedagogical certificate program.

Population and Sample

The purposeful sampling technique was used to select the sample of the present study. The aim of preferring this technique was to ascertain the differences among the participants and to collect vital information. The population of the research was composed of graduate students of the Certificate Program of Pedagogy (teacher education), Faculty of Education in Near East University in Nicosia in North Cyprus. This program was approved by the YÖK (Higher Education Committee in Turkey). A total of 450 post-graduate students attended the certificate program in 2014-2015. The selection of students was based on YÖK's criteria to study on the pedagogical formation certificated program.

The Context of the Pedagogical Formation Certificate Program

This certificate program was based on the suitability of the distance education system to be applicable for students who aimed to study from abroad. During this certificate program, the post-graduate students took ten courses. The present study was based on the Instructional Technology and Material Design course, which had similar facilities compared to other courses but, in addition, it had an electronic course book, as well as a traditional course book. The distance education program was continued over the website, uzem.neu.edu.tr, and with the support of the Moodle system. Live courses were broadcast via the BigBlueButton and recorded courses were provided via YouTube videos each week, with live conservations of each week being used too as sources for this course. The researcher prepared an electronic course book with InDesign software; this electronic course book is compatible with Smartphones and tablets. The program was continued over 12 weeks. YouTube videos of Instructional Technology and Material Design courses, live classroom chats, and activities were available for each week of the program. The post-graduate students took two exams during the program for evaluation. One of them was a mid-term exam and the other was the final exam.

Data Collection

The researcher prepared an attitude scale and a semi-structured questionnaire. The attitude scale had 30 questions and was designed with the help of a literature review. Six experts, who were experts in computer technology, teaching, measurement and evaluation, evaluated the draft version of the scale. The pilot study had been done with undergraduate students who were taking courses, which were supported by distance education. The researcher distributed the scale and interview questions via Google Documents and collected the participants' electronic mail and sent electronic mail via Google Documents facilities. All data was saved automatically and safely.

Data Analysis

The researcher used the Google Documents facilities to transfer data from sheet facilities to SPSS because the researcher used the SPSS program for analysis of the quantitative data. The collected quantitative data had been transferred to SPSS. Descriptive statistical analysis was done and general views were given with the frequency and percentage of their views. Qualitative data were transferred using the Microsoft Office Word program to systematically categorize data for analyzing thematically. Initially, 20 participants' answers were listed and their answers were coded and these codes were collected under themes.

Ethics of the present study

The researcher had not met any of the participants as face-to-face. The researcher contacted them all over the Internet. The researcher saved all the documents on the Internet platforms and these platforms had passwords for access, these passwords were known solely by the researcher.

FINDINGS AND DISCUSSION

Findings

In this section, the findings of the present study are given under objectives of the present study. Initially, the demographic information of the participants is presented in the following section under **Table 1**.

Table 1 shows the participants' demographic information. Half of the participants (50%) were female and the other half were male. The participants graduated from different departments: 2 of the participants (10%) studied in the Department of Philosophy; 3 of the participants (15%) studied in the Department of Mathematics; 2 of the participants (10%) studied in the Department of Physical Education; 2 of the participants (10%) studied in the Department of Public Relations; 1 of the participants (5%) studied in the Department of Food Engineering; 5 of the participants (25%) studied in the Department of Turkish Language and Literature; 1 of the participants (5%) studied

Table 1. Demographic Information about the Participants of the Research

Variables		F	%
Gender	Female	10	50%
	Male	10	50%
Department			
	Philosophy	2	10%
	Math	3	15%
	Physical Education	2	10%
	Public Relations	2	10%
	Food Engineering	1	5%
	Turkish Language & Literature	5	25%
	Theology	1	5%
	Coaching	2	10%
	Nursing	1	5%
	Psychology	1	5%
Education Level			
	Undergraduate	16	80%
	Graduate	4	20%
Age			
	36+	3	15%
	31-35	5	25%
	26-30	9	45%
	20-25	2	10%

in the Department of Theology; 2 of the participants (10%) studied in the Department of Coaching; 1 of the participants (5%) studied in the Department of Nursing and 1 of the participants (5%) studied in the Department of Psychology. Of these, 80% of the participants studied in the undergraduate program and 20% of the participants studied in the graduate program. Of these, 15% of the participants were in aged 36+ years, 25% of the participants were 30-35 years of age, 45% of the participants were 26-30 years of age, while 10% of the participants were aged 20-25.

Table 2 shows the participants' views and they agreed with almost all the items, except item 23. The participants were not sure about how much e-books increase their level of achievement. The range of attitudes of the participants' answers were determined by Balcı's (2006) ranges.

Motivation is the first raised theme in qualitative data. Motivation of the participants are affected by teaching materials according to the participants' answers, designed electronic book and the facilities of the programs in education program (Moodle. InDesign, Youtube, BigBlue Button) have importance point into motivation level of the participant. Because, facilities of distance education program and electronic book and multiple sources linkage help the students to learn on multi-platforms. Thus, these facilities increase level of engage in lesson and increase level of motivation. And, these facilities prevent participants from being bored while studying. For instance, especially with the recorded videos of each chapter, the students cannot be alone while studying and cannot be restricted in the same way when reading sentences of a traditional book.

Unlimited-Lack of restriction is another revealed theme in qualitative part of the present study. The findings show that facilities of designed electronic book on material design in teacher education aid the students to reach multiple ways and platforms during studying. Then, these facilities are linked to the developed internet and internet technology. Therefore, the students have numerous chances to engage course and reach several materials which are related to the course.

Table 2. Attitudes of the Participants of Using Electronic Books in Online Learning

Items	X	
I1: I think that permanent information can be easily reached via e-book features	3.9	Agree
I2: I think that using e-books increases the level of motivation	3.75	Agree
I3: I think that using e-books is useful for learning	4.15	Agree
I4: I think that using e-books is helpful to increase the level of achievement	3.6	Agree
I5: I think that using e-books is useful, enjoyable and easy	3.9	Agree
I6: I think that using e-books can be without time and place limitations	3.8	Agree
I7: I think it is useful to buy and download e-books in e-learning	3.8	Agree
I8: I think that graphics and sound applications of e-books motivate one to learn in e-learning	3.7	Agree
I9: I think that e-books can be chosen for every level of sufficiency	3.9	Agree
I10: I think that reading e-books, which have high-resolution graphics and sound, is more enjoyable	4	Agree
I11: I think that listening activities in e-books are useful in e-learning	3.8	Agree
I12: I think that reading activities of e-books are useful for e-learning	3.7	Agree
I13: I think that video activities of e-books are useful for e-learning	4.05	Agree
I14: I think that using of e-books is useful to have permanent information in e-learning	3.5	Agree
I15: I like using e-book opportunities to receive feedback and receive replies	3.95	Agree
I16: I think that I can control the learning process with a single process	3.4	Agree
I17: I think that using e-books is helpful for creative and critical thinking	3.6	Agree
I18: I think that e-books draw the attention of targeted students in light of detected educational messages–	3.8	Agree
I19: I think that e-book learning with different options presented by selecting appropriate categories can target educational messages	3.9	Agree
I20: I think that e-books result in access to information and if you want to learn they increase your confidence	3.82	Agree
I21: I think that we should encourage the use of e-books for distance education.	4.16	Agree
I22: I think that reaching permanent information is easy using e-books	3.5	Agree
I23: I think that using e-books increased my level of achievement	3.32	Undecided
I24: I think that using e-books generally increases my level of motivation	3.6	Agree
I25: I think that I will suggest using e-books to my friends	3.55	Agree

Themes	
Some Participants' Quotes	Motivation
Participant A	"An E-book is easy to use and I think that learning is motivated during learning"
	Unlimited
Participant T	"It helps us not carry heavy books"
	Multimedia
Participant D	"Answers individual differences"
	Interactivity
Participant Y	"This is essential for distance education to increase interactive learning"
	Attention
Participant H	"It includes varieties and these things help me increase my attention"
	Permanent Information
Participant F	"E-books increase my attention and help me learn more"
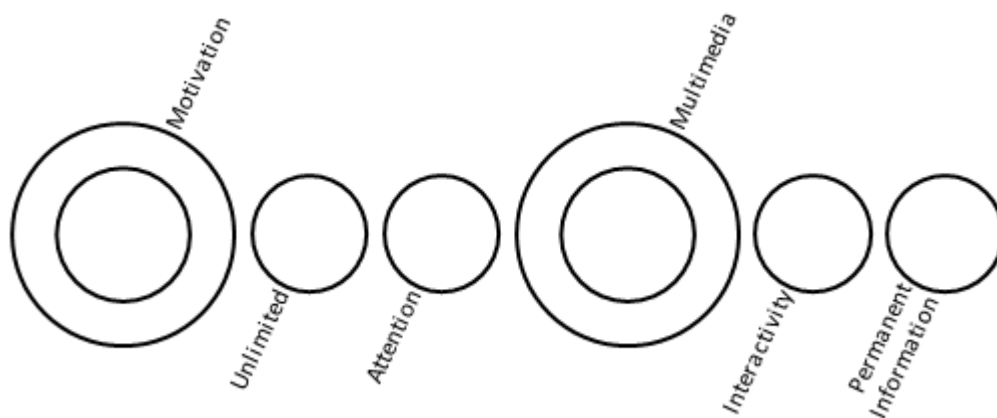
Figure 1. Themes of the participants' views on the benefit of the design electronic books for the course. Source: Authors' Compilation

Multimedia is the third theme in the qualitative part of the present study. Using electronic book is possible everywhere in electronic areas (i.e. personal computer, netbook, notebook, tablet, smart phones, etc.,). This means that there are no limitations for reaching the electronic books and read it everywhere. At the same time, today's students and people are nearly all get used to read screens. The mobility of electronic books is applicable for all sorts of smartphones, netbooks and laptops, as well as personal computers; therefore, one time is enough to save the electronic book to these places. Having Internet is not compulsory for reading electronic the book.

Attention is the fourth theme in the qualitative part of the present study: The facilities of the designed electronic book and opportunities of the reading electronic book increase the level of success of the students. And today's students' interest is linked today's technology. In the light of attention, students' profile is linked to technology on the course. Because of the opportunities, they provide to catch the attention of the students while studying. For example, the electronic books aid students to reach the author of each chapter to keep in touch and to ask whatever they want and the students can reach the instructor of the course at the same time.

Interactivity is the fifth theme in qualitative part of the present study. The distance education setting creates interactivity between the students and the instructor of the course.

Permanent information is the sixth theme in qualitative part of the present study. Using electronic sources, helps students to gain the chance to learn permanent information. The participants' claims show similar assertions about the benefits of using electronic books.

These six themes were revealed from the experimental group of participants because they used the electronic book for studying their course. Important factors were the multiplicity of the electronic book, the ease of access and the cheaper cost. These increased the level of motivation to study and the facilities of the electronic book meant that they got more benefit from using the electronic books than traditional ones. The electronic book was designed for Pedagogical Formation students, as well as the Faculty of Education students. This means that the participants were future teachers. Therefore, the participants' views were taken in respect of how to reach students and teach in an effective way.

The control group of the participants mentioned their views regarding using traditional books instead of electronic books in distance education. The students expected and needed an easy way of studying the course. The course was based on traditional books and the alternatives were only Power Point slides and recorded videos. They are available on Moodle, but they are available separately. The students could not fully find all in one. However, the electronic book maintained these facilities for the other group of students.

Discussion

Currently, Internet technology covers an enormous area in the education setting so it is inevitable that teachers and educators use Internet technology (Pal, Mukherjee, Choudhury, Nandi & Debnath, 2013). The modern learning environment revolves around the use of digital and online tools for education (Mukhlif & Amir, 2017). Besides this, large numbers of universities are only based on Internet technology (Sanchez & Hueros, 2010) because they provide distance education (Dahalan, Hasan, Hassan, Zakaria & Noor, 2013). People have changed the way they read books with the advancement of information and communication technology and digitalization (Lee, 2013). Specifically, various forms of data have been transferred to electronic formats that allow users to access information. Unfortunately, in education, reading is regarded as the most essential skill for acquiring knowledge and gathering information for academic achievement and research (Alfassi, 2004; Wei, 2005). Therefore, mastering online reading skills can enhance learners' reading ability, increase their reading process and assist them in comprehending any difficult online texts (Noor et al., 2011). In fact, various studies have revealed that reading is a very complex and demanding process, which requires students to actively use metacognitive processes (Mukhlif, 2012). In today's digital age, daily reading may be becoming digital reading. Although non-textual activities, such as watching movies and television and playing games, are not regarded as digital reading, digital reading includes reading e-books, e-mail, websites, and content on social networking services (SNSs). In their article, Hsieh & Dwyer (2009) illustrated the different online reading strategies and different styles that learners use to make their reading useful. In graduate studies, distance education is popular because post-graduate students prefer suitable programs to study in easy and economic ways (Fernandez, Simo & Sallan, 2009). In this paper, the participants were post-graduate students who attended a distance-learning program to receive a pedagogical certificate to be teacher. Therefore, our findings showed that the participants looked for multiple platforms to learn and achieve their certificate. Multiple platforms provide many facilities to increase the level of teaching and learning (Stella & Gnanam, 2004).

The present study considers preference as a broad concept that includes, not only simple liking, but also an awareness of the utility or usefulness of the particular media. Preferences have been considered as factors affecting the diffusion of new technology and media adoption. Reading preference changes in a wide variety of circumstances. The preference for digital or print media varies according to the circumstances (purpose, situation and context). In the research, the main multi-platform facilities were given via Moodle for the participants. Moodle is an important platform to provide multiplicity and variety in an educational setting (Costinela & Luminita, 2011). Cubukcu (2008) argued that access to learning materials via the Internet is now necessary. Designing and using electronic books has advantages and provides benefits to readers to increase their self-learning (Bravo, Enache, Fernandez & Simo, 2010). At the same time, YouTube video recordings are an alternative way to reach large numbers of students easily (Craciunas & Elsek, 2009). Recent studies have focused on e-book use in the higher-education sector (e.g., Lam et al., 2009; Jou et al., 2016). While e-books have factors or benefits that may assist authors or publishers in developing a successful agenda, the "perceived benefit" is used to explain and predict user's intentions to adopt e-books (Chia et. al., 2017). Electronic and soft course notes are also a crucial resource to motivate students to study, without the restriction of time and place (Tang & Austin, 2009). Multi-platforms also bring motivation (Copley, 2007). Motivation is increased via technological varieties (Otta & Tavella, 2010). Furthermore, according to previous studies on e-books, the easier it is for an individual to use an e-book, the greater the perceived ease of use is, and the greater the usage intention (Chung and Tan, 2004; Wu and Kuo, 2008). Firstly, we found that performance expectancy had a significant impact on usage intention. This is consistent with arguments made in the previous literature (Zhou et al., 2010; Im et al., 2011). Students who are engaged in reading are more likely to spend time reading and research shows that increased motivation for reading can improve reading competency (Ciampa 2012c; Guthrie & Wigfield 2000; Morgan & Sideridis 2006; Sideridis & Scanlon 2006). Interactive learning has appeared with help of the Internet technology (Vrasidas, Zembylas & Chamberlain, 2003). E-books may include interactive features that support their reading development, such as highlighted text that is read aloud, opportunities for independent reading, graphics and animations that closely match the text, an individualized reading pace, and dictionary features (Karemaker et al., 2008). Likewise, e-books can support students' comprehension development by providing multimedia and dictionary features that assist them in defining words

when they encounter unfamiliar vocabulary (Verhallen et al., 2006). The students can comment under YouTube videos and they can share their views about the course. Also, electronic book design can be used in an easy way to increase the level of interaction because it includes all in one. (UNCLEAR) For instance, you can use a Facebook connection to like a page of the design of the electronic book, YouTube, Moodle and PowerPoint slides of the course. The electronic book helps to reach the authors of each chapter. Accessibility is an important benefit of the electronic book. Also, the cheaper cost of an e-book is the main variable for most of the students and most of the students look for the cheapest ways to study and, at the same time, time saving is also an important benefit for them (Zoran & Rozman, 2010). Reading is used throughout our everyday lives and includes a variety of texts, both traditional print media and electronic texts. The electronic book provides all these facilities for the students. Boundaries have thus been changed with help of Internet technology and electronic book designs (Miller & King, 2003)

CONCLUSIONS AND SUGGESTIONS

Conclusions

To conclude, the importance of the new improved communication and information technologies is highlighted in the present study. In this context, the present study is conducted to reveal participants' views on using electronic sources in distance education pedagogical formation certificate program and it mentioned that the new improved communication and information technologies have opened new dimensions to education platforms in the 21st Century. Therefore, the present study conducted to reveal new generation students' views on using new information technologies and developments in higher education (i.e. designing electronic book, using electronic book and electronic sources in higher education). As a result of conducting the present study, the well-known form of new information technologies in field of education is online education, distance education and digital teaching materials for students and today students' profile require these novelties. In this sense, the Internet has become the latest vehicle through which institutions offer credit and noncredit distance learning courses to students all around the world as mentioned in literature. This is because the Internet has allowed for a variety of asynchronous (two-way communication involving a time delay between transmission and receipt), as well as synchronous (communication without extended time delay) activities, such as chat sessions and online discussions, which can be used to engage learners in student-to-student, as well as student-to-instructor interactions. Thus, multiplicity and alternative ways of teaching in the education process have become the main requirements to maintain individual requirements of students and the profiles of the students are familiar and needed to search multiplicity in their learning instead of learning in one way. Thus, many students ask alternative ways to attend to and engage in education sufficiently as discussed in the findings. As a result of the present study, the main resource of alternatives and multiplicity in education is the teachers, therefore, the teachers and teaching candidate should have a relationship with technology and should use it in sufficient level in their current and future classes. Also, each teacher should follow technology and apply technology in their course materials. Therefore, the design of the digital electronic book is prepared to be adaptive for this generation of the students because they are generally digital readers. The Internet and communication technologies also provide convergence for any class material into digital form. Like previous forms of distance learning, online education allows students to do coursework at times to fit in with their lives and schedules, rather than conform to a specified class time and location. Today's Internet and communication technologies to provide opportunities and alternatives to fit in with the students' reading and engaging profiles of any teaching materials. The main assertion of the students is to supply the needs of the students. Even simple books are useful for learning something. The needs of the students for learning can be met with the help of creative and alternative ways. In this respect, individuality and learning are highlighted in education platforms. Future teachers are enlightened with the need for alternatives for the uniqueness and individual differences in the learning process. At the same time, there is a focus on the need to be adaptive to the time. In the 21st Century, researchers should design electronic books from elementary to higher education to follow this transition from traditional ways of teaching to mobile learning.

Suggestions

Using the Internet and communication technologies is commonly significant in all around the world due to provide global platforms all students. Therefore, using the Internet and communication technologies is a necessity especially to maintain today's students profile and increase opportunities for their success. Revealing students' views and attitudes on using improved internet and communication technologies (designed e-book) show that teaching materials should prepare in the light of new millennium's students profile who are digital native and multiple platforms and electronic sources should be used in higher education. Indeed, the present study would be fruitful to pursue further research about using new millennium technologies to provide sufficient education platforms for today's students especially in developing countries.

REFERENCES

Ahmed, Y., & Raheem, A. (2012). Interactions quality in MOODLE as perceived by learners and its relation with some variables. *Turkish online journal of distance education*, *13*(3), 375-389.

Alfassi, M. (2004). Reading to learn: Effects of combined strategy instruction on high school students. *The journal of educational research, 97*(4), 171-185.

Balcı, A (2006). *Sosyal bilimlerde araştırma [Research in social science],* Ankara: Pegem Publication.

Benigno, V., & Trentin, G. (2000). The evaluation of online courses. *Journal of computer assisted learning,* 16, 259-270.

Brajković, M. (2012). Mogućnosti koje nudi program za prijelom. Baccalaureus work - Undergraduate programme. Grafički fakultet. [Mentor: Mandić, Lidija].

Bravo, E., Mihaela Enache, M., Vicenc Fernandez,V., & Simo,P. (2010). An innovative teaching practice based on online channels: A qualitative approach. *World journal on educational technology, 2*(2), 113-123.

Cain Miller, C., & Bosman, J. "E-Books Outsell Print Books at Amazon." New York Times, May 19, 2011. http://www.nytimes.com/2011/05/20/technology/20amazon.html

Ciampa, K. (2012c). Reading in the digital age; Using electronic books as a teaching tool for beginning readers. *Canadian Journal of Learning and Technology, 38*(2), 1-26.

Conley, T. G., & Udry, C. R. (2010). Learning about a new technology: Pineapple in Ghana. *The American Economic Review,* 35-69.

Copley, J. (2007). Audio and video podcasts of lectures for campus-based students: production and evaluation of student use. *Innovations in education and teaching international, 44*(4), 387-399.

Costinela-Luminita, D. (2011). Security issues in e-learning platforms. *World journal on educational technology,* 3(3), 153-167.

Craciunas, S., & Elsek, I. (2009). *The standard model of an e-learning platform.* Bucharest: Romania.

Cubukcu, F. (2008). Enhancing vocabulary development and reading comprehension through metacognitive strategies. *Issues in Educational Research, 18*(1), 1-11.

Dahalan, N., Hasan, H., Hassan, F., Zakaria, Z., & Noor, W., A., W., M. (2013). Engaging students on-line: does gender matter in adoption of learning material design? *World journal on educational technology, 5*(3), 413-419.

Duffy, P. (2008). Engaging the YouTube Google-Eyed Generation: Strategies for Using Web 2.0 in Teaching and Learning. *The Electronic Journal of e-Learning, 6*(2), 119 - 130, available online at www.ejel.org

Fernandez V., Simo, P., & Sallan, J. M. (2009). Podcasting: A new technological tool to facilitate good practice in higher education. *Computers & education, 53*(2), 385-392.

Schneller, C, & Holmberg, C. (2014). *IDEAL Impact of Distance Education on Adult Learning Distance Education in European Higher Education-The Students.* Norway: UNESCO

Gebregiorgis, S. A., & Altmann, J. (2015). IT service platforms: their value creation model and the impact of their level of openness on their adoption. *Procedia Computer Science, 68*, 173-187.

Wigfield, A., & Guthrie, J. T. (2000). Engagement and motivation in reading. *Handbook of reading research, 3*, 403-422.

P. B. Mosenthan, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (pp. 403-422). London: Lawrence Erlbaum Associates.

Hsieh, P. H., & Dwyer, F. M. (2009). The instructional effect of online reading strategies and learning styles on student academic achievement. *Educational Technology & Society, 12*(2), 36-50.

Hsu, C. L., Lin, Y. H., Chen, M. C., Chang, K. C., & Hsieh, A. Y. (2017). Investigating the determinants of e-book adoption. *Program, 51*(1), 2-16.

Im, I., Hong, S., & Kang, M. S. (2011). An international comparison of technology adoption testing the UTAUT model. *Information & Management, 48*(1), 1-8.

Karemaker, A., Pitchford, N. J., & O'Malley, C. (2008). Using whole-word multimedia software to support literacy acquisition: A comparision with traditional books. *Educational and Child Psychology, 25*(3), 97-118.

Lissitsa, S., & Chachashvili-Bolotin, S. (2016). Life satisfaction in the internet age–Changes in the past decade. *Computers in Human Behavior, 54*, 197-206.

Lee, S. (2013). An integrated adoption model for e-books in a mobile environment: evidence from South Korea. *Telematics and Informatics, 30*(2), 165-176.

Meyer, K. A. (2002). Quality in distance education: Focus on on-line learning. *ASHE-ERIC Higher Education Report Series, 29*(4).

Miller, T. W., & King, F. B. (2003). Distance education: Pedagogy and best practices in the new millennium. *Internal journal of leadership in education, 6*(3), 283-297.

Morgan, P. L., & Sideridis, G. D. (2006). Contrasting the effectiveness of fluency interventions for students with or at risk for learning disabilities: A multilevel random coefficient modeling meta-analysis. *Learning Disabilities Research and Practice, 21*, 190-210.

Motteram, G., & Forrester, G. (2005). Becoming online distance learner: What can be learned from student's experiences of induction to distance programs? *Distance education, 26*, 261-298.

Mukhlif, Z., & Amir, Z. (2017). Investigating the Metacognitive Online Reading Strategies employed by Iraqi EFL Undergraduate Students. *Arab World English Journal, 8*(1).

Mukhlif, Z. (2012). *Metacognitive Online Reading Strategies among Iraqi Students*. (Unpublished Master's thesis). University Kebangssan, Malaysia.

Noor, N. M., Azman, H., Nor, N. F. M., Hamat, A., & Bakar, N. A. (2011). Development and Evaluation of the Interactive English Language Literacy System (i-ELLS) for online reading comprehension 3L: Language, Linguistics and Literature, *The Southeast Asian Journal of English Language Studies., 17*(special issue), 19-30.

Otta, M., & Tavella, M. (2010). Motivation and engagement in computer-based learning tasks:investigating key contributing factors. *World journal on educational technology, 2*(1), 1-15.

Pal, S., Mukherjee, S., Choudhury, P., Nandi, S., & Debnath, N. C. (2013). M - Learning inuniversity campus scenario - design and implementation issues. *IEEE international conference on industrial technology (ICIT), 1851-1856.

Rickman, J., et al. "A Campus-Wide E-Textbook Initiative." EDUCAUSE Review Online, July 30, 2009. *http://www.educause.edu/ero/article/campus-wide-e-textbook-initiative*

Riva, G., & Galimberti, C. (1997). The psychology of cyberspace: a sociocognitive framework to computer mediated communication. *New Ideas in Psychology, 15*(2), 141-158.

Sanchez, R. A., & Hueros, A. D. (2010). Motivational factors that influence the acceptance of Moodle using TAM. *Computers in human behavior, 26*, 1632-1640.

Sideries, G. D., & Scanlon, D. (2006). Motivational issues in learning disabilities. *Learning Disability Quarterly, 29*, 131-135.

Stella, A., & Gnanam, A. (2004). Quality assurance in distance education: The challenges to be addressed. *Higher education, 47*, 143-160.

Tang, T., & Austin, M. (2009). Student's perceptions of teaching technologies, application of technologies, and academic performance. *Computers & education, 53*, 1241–1255.

Tham, C. M., & Werner, J. M. (2005). Designing and evaluating e-learning in higher education: review and recommendations. *Journal of leadership and organizational studies, 11*(2), 15-25.

Vasileiou, M., Hartley, R., & Rowley, J. (2009). An overview of the e-book marketplace. *Online Information Review, 33*(1), 173-192.

Verhallen, M., Bus, A. G., & Jong, M. T. (2006). The promise of multimedia stories for kindergarten children at risk. *Journal of Educational Pshchology, 98*, 410-419.

Vrasidas, C., Zembylas, M., & Chamberlain, R. (2003). Complexities in the evaluation ofdistance education and virtual schooling. *Educational media international, 40*(3/4), 201-208.

Wang, S. K., Hsu, H. Y., Campbell, T., Coster, D. C., & Longhurst, M. (2014). An investigation of middle school science teachers and students use of technology inside and outside of classrooms: considering whether digital natives are more technology savvy than their teachers. *Educational Technology Research and Development, 62*(6), 637-662.

Wei, Y. (2005). *The relationship between phonological awareness and reading ability of Thai students in English and Thai in primary schools of Thailand* (Doctoral dissertation).

Willis, B. (1993). Distance education: A practical guide. Englewood cliffs, *NJ: Educational technology publications.*

Wood, J. (2015). Interpersonal communication: Everyday encounters. *Nelson Education.*

Wu, M. D., & Chen, S. C. (2011). Graduate students' usage of and attitudes towards e-books: experiences from Taiwan. *Program, 45*(3), 294-307.

Wu, M. C., & Kuo, F. Y. (2008). An empirical investigation of habitual usage and past usage on technology acceptance evaluations and continuance intention. *Database for Advances in Information Systems, 39*(4), 294-307.

Zhou, T. Lu. Y., & Wang, B. (2010). Integrating TTF and UTAUT to explain mobile banking user adoption. *Computers in Human Behavior, 26*(4), 760-767.

Zoran, A. G., & Rozman, K. (2010). Student's perception of using MOODLE. *4th International conference proceedings,* Koper.

http://www.ejmste.com