

## Prospective Teachers' Opinions about Developed E-book for History Course and Its Use

Erkan Bal<sup>1</sup> and Murat Tezer<sup>2\*</sup>

<sup>1</sup>Near East University, Ataturk Faculty of Education,  
Department of Mathematics Education, Nicosia, Cyprus

<sup>2</sup>Near East University, Ataturk Faculty of Education,  
Department of Instructional Technologies and Computer Education, Nicosia, Cyprus

\*Telephone: +90 392 6802000 - 110

\*E-mail: <sup>1</sup><erkan.bal@neu.edu.tr>, <sup>2</sup><murat.tezer@neu.edu.tr>

**KEYWORDS** Material. Design. Students. Views. Distance Learning

**ABSTRACT** This study is aimed at determining the opinions of prospective teachers about developed E-book for history course and its use. This research is a quantitative study which is modelled based on the analysis of the opinions of students about the particular e-book they used. The participants of the study consisted of 80 voluntary students studying in the Department of Pre-school Education at the Ataturk Education Faculty at Near East University. The study group consisted of students who were enrolled in the Ataturk Principles and History of Turkish Revolution (APHTR) course given via distance learning. At the beginning of the semester; students were informed about e-books, then the APHTR E-book was presented visually, students were informed about how to use it and the e-book was distributed to the students. At the end of the semester; a survey about the opinions of prospective teachers related with the developed e-book and its use was administered to the students. According to the results, it was revealed that the perception levels of the prospective teachers related with the e-book and its use were generally positive; it would make a positive contribution to distance education and would also provide support for formal education.

### INTRODUCTION

Together with technological developments, human beings have transformed into a structure based on thinking rather than changed physical strength. Historically, thinking has led to education and training. Our ever-growing technology-oriented age is called the modern age of information. In order to use information technologies effectively, the concept of educational technology must be understood (Kanbul and Uzunboylu 2017). The concept of educational technology has gradually expanded over time (Gülcü et al. 2013; Pinpathomrat 2017). These developments have also been developed and designed in accordance with the needs of education (Yilmaz and Naci 2017). The Internet has revolutionized the technological revolution by providing a network that has linked the world digitally since the 1980s, based on research that began in the 1960s. One of the most striking development in the history of the world is the internet and communication technology, combining software and hardware infrastructure that provides a seamless con-

nection between computers and computer networks (Manso et al. 2018). With the introduction of computers, tablets and mobile devices into modern life, education and teaching have become easier (Uzunboylu et al. 2015; Birkollu et al. 2017). Because of the widespread use of these devices in our lives, education and teaching have become easier to reach and desired at the desired time and place, and e-learning model, open and distance education has taken place in our lives (Vrabie 2016).

Distance education is learning and interacting with all forms of education (Anderson 2003). The necessity of this interaction is that the course materials should be designed and developed to ensure effective communication in distance education. The importance of e-books and e-learning environments has increased with the re-creation and design of course contents in the electronic environment (Babori et al. 2016; Alpkiray and Samur 2017). The use of e-books has become obsolete with the growing knowledge and has taken the place of printed books. New information on the world is increasing, and

for this reason, information is called age (Akkoyunlu 1998). E-learning has also enabled the basic elements of classical education to be used more effectively and quickly in the electronic environment (Akhondi et al. 2015). More effective results can be obtained by applying student opinions and success measurement more easily and less frequently in the electronic environment than in the classical method (Lotrean et al. 2009). In order to use information technologies effectively, the concept of educational technology must be understood (Gülcü et al. 2013). Today, the interconnections between education and technology are widely acknowledged. The rapid developments in technology in the age of information and communication have also transformed the structure of education. In terms of education, the use of technology as a teaching tool has become indispensable over time (Bicen et al. 2010; Caliskan and Ozcan 2017). With the development of code-languages after the 2000's, e-books have developed rapidly (Lebert 2009).

Along with these developments, e-learning environment options as well as interaction were provided and e-books could thus become more interactive. Today, the interactive e-book has become one of the primary distance education materials due to the introduction of visual and auditory materials in the content besides the multimedia options, researching the contribution of the e-books and it is of utmost importance to determine the e-book design criteria and to determine the opinions of the students for the e-book.

With the developments in technology, the interest in e-books and e-publications has increased. This growth has also increased the amount of readers and producers and created a commercial market in this sector. E-learning has also increased with development of the benefits of e-books used as well as the work conducted in the field of education. In many countries, future studies of e-books that cannot find their place in the education system are still going on. This research aims to design and prepare an e-book for history lesson and to use it as course material in the distance education program. It also aims to reveal the reasons why e-book usage is preferred to printed books with student opinions.

The purpose of this study is to determine the opinions of the students on the use of the E-

book developed and designed for the "Atatürk Principles and Revolution History" course by the researchers. The following sub-aims have been prepared to reach the above mentioned general purpose:

1. What are the prospective teachers' opinions on the educational structure of APHTR E-book?
2. What are the prospective teachers' opinions on the replacement of the traditional APHTR book with E-book?
3. What are the prospective teachers' opinions on the design of the APHTR E-book?

## METHODOLOGY

The research was conducted using the general survey model. This model allows the screening of a group, an example or a sample to be taken from the whole of the universe or from a section of the universe in order to make a general judgment about the universe (Karasar 2008). The research is a quantitative study and is modelled according to the analysis of the opinions of the students about the e-book used in the course.

### Participants

The participants were formed by volunteer first year students who were studying in the preschool teacher training department of the education faculty at a private university in 2016-2017 spring semester. The participants consisted of students enrolled in the Atatürk Principles and Revolution History II course given via distance education. There were 100 students in the group in total but between them only 80 volunteers participated in the study. Participants were selected by using the purposive sampling method. In the purposive sampling method, in cases where important and rich information exists, people with certain criteria, events, objects, situations are included (Büyüköztürk et al. 2008).

### Data Collection Tool

The survey questionnaire was used as a means of collecting data on the E-books and prospective teachers. Items were created to form a questionnaire for the students' APHTR E-book and the opinions of 10 lecturers and Turkish

language experts were taken from the Department of Teaching Computer and Instructional Technologies for the content validity of the questionnaire. The necessary adjustments were then made based on the recommendations of the experts and the data collection tool was thus finalized.

The survey designed to assess the prospective teachers' opinions regarding the developed e-book and its use is composed of 25 positive items. Items were prepared in 5 point Likert Type. For each answer, 5<sup>th</sup> point express "I strongly agree" and 1<sup>st</sup> point expresses "I strongly disagree". Expert opinions were received in order to determine the validity of the questionnaire. The Cronbach's alpha reliability coefficient of the questionnaire was determined as 0.93 which was pretty good. The interpretation of findings obtained as a result of statistical analysis are given under the heading 'Findings and Comments'. The scale range used in the analysis of the data are given in Table 1.

**Table 1: Scale ranges**

Weight given	Options	Range
1	I strongly disagree	1.00-1.80
2	I disagree	1.81-2.60
3	neither agree nor disagree	2.61-3.40
4	I agree	3.41-4.20
5	I strongly agree	4.21-5.00

### Data Analysis

The data collected for the questionnaire of prospective teachers about e-book and usage applied in the study was analysed by using SPSS 20 statistical package software. The data are given as mean ( $\bar{X}$ ), frequency (f) and standard deviation (Sd). As a result of the statistical analysis, tables were created.

en as mean ( $\bar{X}$ ), frequency (f) and standard deviation (Sd). As a result of the statistical analysis, tables were created.

## RESULTS AND DISCUSSION

### Findings about Prospective Teachers' Opinions on the Educational Structure of the Developed E-Book

Table 2 shows the frequency (f), mean ( $\bar{X}$ ) and standard deviation (Sd) values about the educational structure of the APHTR E-book.

When the findings of the educational structure of the APHTR E-book in Table 2 are examined, prospective teachers' responses were "Agree" for the following items; "E-book provides positive effects on reading habits" ( $\bar{X}$ = 4.10, Sd = .87), "E-book encourages active participation to the lecture" ( $\bar{X}$ = 4.00, Sd = .92), "E-book increases interest in the lesson" ( $\bar{X}$ = 4.10, Sd = .92), "E-Book is not boring" ( $\bar{X}$ = 3.80, Sd = .85), "E-book makes learning easy" ( $\bar{X}$ = 3.90, Sd = .96), "E-book increases motivation for the lesson" ( $\bar{X}$ = 3.90, Sd = 1.00), "E-book provides quick learning" ( $\bar{X}$ = 4.00, Sd = .87), "E-book provides positive effect on exam success" ( $\bar{X}$ = 3.50, Sd = 1.00) and "E-book is effective in individual learning" ( $\bar{X}$ = 3.80, Sd = .97).

When the findings of the educational structure of the APHTR E-book are examined, the prospective teachers participating in the survey delivered a "neither agree nor disagree" opinion for the item "E-book is effective in collaborative learning" ( $\bar{X}$ = 3.30, Sd = 1.00). Prospective teachers delivered a negative opinion (I disagree) for the item "I prefer the E-book application for all Lessons" ( $\bar{X}$ = 2.30, SS = 1.00).

**Table 2: Findings of educational structure of APHTR e-book**

S.No.	Item	f	$\bar{X}$	Sd
1	E-book provides positive effects on reading habits	80	4.10	.87
2	E-book encourages active participation to the lecture	80	4.00	.92
3	E-book increases interest in the lesson	80	4.10	.92
4	E-book is not boring	80	3.80	.85
5	E-book makes learning easy	80	3.90	.96
6	E-book increases motivation for the lesson	80	3.90	1.00
7	E-book provides quick learning	80	4.00	.87
8	I prefer the E-book application for all Lessons	80	2.30	1.00
9	E-book provides positive effect on exam success	80	3.50	1.00
10	E-book is effective in individual learning	80	3.80	.97
11	E-book is effective in collaborative learning	80	3.30	1.00

According to Öngöz (2011), e-books provide positive contributions to individual learners' work, as well as improving communication with friends and teachers. Abdullah and Gibb (2008) supported the views of the students on the positive results of the views on the increase in the speed of education and training. According to the researchers, the E-book (67%) was chosen to search for contents and facts. In Yilar and Simsek's (2016) study, it was concluded that computer assisted teaching software is more effective than traditional teaching methods.

**Findings on Replacement of the Traditional APHTR Book with APHTR E-book**

Table 3 shows the frequency (f), mean ( $\bar{x}$ ) and standard deviation (Sd) values about the prospective teachers' opinions on replacement of the traditional (printed textbook) APHTR book with APHTR E-book.

**Table 3: Replacements of printed APHTR book with APHTR E-book**

S. No.	Item	F	$\bar{X}$	Sd
12	Access to topics in APHTR E-book is easier than printed APHTR book.	80	3.90	.86
13	Visual images are more and more effective in APHTR E-book than printed APHTR book.	80	3.90	.99
14	APHTR E-book is more technological and innovative than printed APHTR book.	80	4.00	.87
15	APHTR E-book has easy to access, easily portable and easy to keep facilities which printed APHTR book has not.	80	4.10	.74

When the findings of the APHTR book can be replaced by APHTR E-book are examined in Table 3, it can be seen that the prospective teachers who participated in the research have positive opinions and they said "Agree" to the items "Access to topics in APHTR E-Book is easier than printed APHTR book" ( $\bar{X}$ = 3.90, Sd = .86), "Visual images are more and more effective in APHTR E-book than printed APHTR book" ( $\bar{X}$ = 3.90, Sd = .99), "APHTR E-book is more technological and innovative than printed APH-

TR book" ( $\bar{X}$ = 4.00, Sd = .87) and "APHTR E-book has easy to access, easily portable and easy to keep facilities which printed APHTR book has not" ( $\bar{X}$ = 4.10, Sd = .74). From the findings obtained above, it can be interpreted that the APHTR E-book is preferable to the printed APHTR book.

**Findings for the Design of the APHTR E-Book**

The findings of the prospective teachers' opinions on the design of the APHTR E-book are displayed in Table 4.

**Table 4: Findings for the design of the APHTR E-book**

S. No.	Item	F	$\bar{X}$	SS
16	Page layout is simple and not distracting	80	3.90	.94
17	Page layout facilitates reading	80	3.90	1.00
18	The colours are chosen so that the eye does not tire	80	4.00	.90
19	Colours compatible with the content	80	3.90	.88
20	The written text is designed to be consistent with the content	80	4.10	.79
21	Written text is readable and not eye tiring	80	3.80	.95
22	Images are compatible with content	80	4.10	.75
23	Visual images made learning easier	80	4.00	.74
24	Video locations are compatible with content	80	4.00	.78
25	Videos have high image and audio quality	80	3.10	.86

When the findings for the design of the APHTR E-book are examined in Table 4, it can be seen that the prospective teachers who participated in the research have positive opinions and they said "Agree" to the items "Page layout is simple and not distracting" ( $\bar{X}$  = 3.90, Sd = .94), "Page layout facilitates reading" ( $\bar{X}$  = 3.90, Sd = 1.00), "The colours are chosen so that the eye does not tire" ( $\bar{X}$  = 4.00, Sd = .90), "Colours compatible with the content" ( $\bar{X}$  = 3.90, Sd = .88), "The written text is designed to be consistent with the content" ( $\bar{X}$  = 4.10, Sd = .79), "Written text is readable and not eye tiring" ( $\bar{X}$  = 3.80, Sd = .95), "Images are compatible with content" ( $\bar{X}$  = 4.10, Sd = .75), "Visual images made learning easier" ( $\bar{X}$  = 4.00, Sd = .74) and "Video locations are com-

patible with content" ( $\bar{X} = 4.00$ ,  $Sd = .78$ ). This finding can be interpreted as the fact that the prospective teachers enjoyed the E-book page design. But prospective teachers who participated in the research delivered an undecided opinion and they said "neither agree nor disagree" to the item "Videos have high image and audio quality" ( $\bar{X} = 3.10$ ,  $Sd = .86$ ). So, it can be said that video and audio quality can be increased slightly more.

In a similar way, Argan et al. (2008) mentioned that structural features of books (designs) have an important influence on book reading. It has an important place in the use of design and visual books according to the results of studies on the readability of the text on the screen (Landoni and Gibb 2000). Caperna (2007) emphasized that the criteria such as the appearance and writing style of the book play an important role in the selection of the book.

Shadiev et al. (2017) reported on aspects to be considered in the course of preparing the course content of E-books. The fact that the videos to be added in the research are organized and placed in a way that attracts the attention of the students has made it easier for the students to use videos in E-books.

Amazon.com, the world's largest online book and music store, announced that E-book sales surpassed printed book sales in 2010 for the first time since they had been introduced. And once Amazon released the Kindle, annual e-book sales increased from 10 million units in 2008 to 510 million in 2014 (Perzanowski and Hoofnagle 2016).

According to Soydan (2012), traditional book editions continue, but with the development of e-book technology, printed books are expected to turn into objects with nostalgic meaning like old plaques. It has emerged that the basic features of books need to be developed with the concept of writing and reading e-books. Anameriç and Rukancı (2003) found that the length of the text causes reading difficulties.

## CONCLUSION

Along with rapid developments in educational technologies, new software and applications are being introduced into the field of education. Supporting studies are being conducted in order to develop distance education, now re-

garded as the new face of education. In addition to the opportunities offered by formal education, supportive studies are being conducted for distance learning to go beyond this.

## Results for the Educational Structure of the APHTR E-book

The results of the prospective teachers' educational structure of the APHTR E-book have been examined, and in general prospective teachers' gave a positive opinion on the use of e-book in education. However, it has been found that the opinions of the prospective teachers' regarding the usability for all lessons are negative.

Prospective teachers' preferences for e-book collaborative usability are observed to be undecided. However, they have come to the conclusion that e-books can be preferred for individual study. According to the students' opinions, it should be designed according to the e-learning environments, which will increase the success rate of the learning.

## Consequences of E-book's Usability Compared with Printed Books

Within the scope of the research, the prospective teachers preferably use the e-book instead of the printed book. When the positive results of the expressions were evaluated, prospective teachers denoted that APHTR e-book could be used instead of the APHTR printed book.

Technological developments show that, while traditional books are still produced, they will change over time due to the demand for e-books.

## Conclusions Concerning E-book Design

It can be seen that the majority of today's e-books consist only of the transfer of printed books to digital media. Technological improvements are expected to lead to higher levels of effectiveness, with e-books going from one copy to another and adding designs and multimedia items. Within the scope of the study, prospective teachers have achieved the favourable opinion and favourable opinion regarding the design of the APHTR E-book.

## RECOMMENDATIONS

### Recommendations for the Educational Structure of E-books

Prospective teachers who are trained in the teaching-learning process should be able to use e-books effectively in their future careers educators and should encourage the students in this direction.

Universities need to focus on distance learning and e-books with special features of education technology as well as to eliminate their deficiencies.

Teachers should support their lessons in structured education with technological materials.

### Recommendations for the Use of E-books Instead of Printed Books

Activities should be implemented to increase the awareness of the differences and advantages of interactive e-books compared with printed books.

To be able to use interactive e-books instead of printed books, students should be informed about how easily they can use the devices.

Teachers and students should be informed about how simple and easy the E-books are, such as the handling, storage.

All distance education institutions and organizations should have information about E-books and they need to investigate and study this subject in greater detail from various perspectives.

### Recommendations for the Design of E-books

The interactive dimension of E-books needs to be shaped effectively to enhance the students' interest in lectures.

Applications should be designed to be more interactive.

The design elements (colours, texts, patterns and visual materials) must be chosen within the framework of the students' appreciation and educational principles.

Designs should be simple and not distracting and should be based on space occupancy principles

High quality visuals, sounds, or videos that embody meaning in the design process should be used.

## REFERENCES

- Abdullah N, Gibb F 2008. Students' attitudes towards e-books in a Scottish higher education institute: Part 1. *Library Review*, 57(8): 593-605.
- Akhondi AY, Yarmohammadian M, Haghani F 2015. Designing an e-learning curriculum for spelling on the basis of cognitive approach. *Contemporary Educational Researches Journal*, 5(1): 08-11. doi: <https://doi.org/10.18844/cej.v5i1.9>
- Akkoyunlu B 1998. Technological developments in education. *Contemporary New Technologies in Education Eskisehir, Anadolu University Publications*, 10(21): 1-12.
- Alpkiray F, Samur Y 2017. A content analysis of thesis and dissertations published in Turkey on electronic books. *SDU International Journal of Educational Studies*, 4(1): 12-28.
- Anameriç H, Rukanci F 2003. E-kitap teknolojisi ve kullanımı. *Türk Kütüphaneciliği*, 17(2): 147-166.
- Anderson T 2003. Modes of interaction in distance education: Recent developments and research questions. In: M Morre, W Anderson (Eds.): *Handbook of Distance Education*. Mahwah, NJ: Lawrence Erlbaum, pp. 129-144.
- Argan M, Argan MT, Kurgan M 2008. The impact of formal features on books on reader attitudes. *The World of Knowledge*, 9(1): 179-206.
- Babori A, Fihri-Fassi H, Hariri A, Bideq M 2016. An e-learning environment for algorithmic: Toward an active construction of skills. *World Journal on Educational Technology: Current Issues*, 8(2): 82-90. doi: <https://doi.org/10.18844/wjet.v8i2.819>
- Bicen H, Ozdamli F, Ertac D, Tavukcu T, Arap I, Terali M 2010. Education needs of teacher candidates towards web based collaborative learning studies. *Procedia-Social and Behavioral Sciences*, 2(2): 5876-5880.
- Birkollu SS, Yucesoy Y, Baglama B, Kanbul S 2017. Investigating the attitudes of pre-service teachers towards technology based on various variables. *TEM Journal*, 6(3): 578-583.
- Büyüköztürk S, Çakmak EK, Akgün ÖE, Karadeniz S, Demirel F 2008. *Bilimsel Arastırma Yöntemleri*. Ankara: Pegem Akademi.
- Caliskan S, Ozcan D 2017. Determination of self-efficacy perceptions of special education teacher candidates towards computer course. *Ponte*, 73(6): 213-223.
- Caperna CG 2007. *The Book Selection Process of Third Grade Students during Library*. Doctoral Dissertation. Bowling Green State University.
- Gülcü A, Solak M, Aydin S, Koçak Ö 2013. İlköğretimde görev yapan brans öğretmenlerinin eğitimde teknoloji kullanımına ilişkin görüşleri. *Electronic Turkish Studies*, 8(6): 195-213.
- Kanbul S, Uzunboylu H 2017. Importance of coding education and robotic applications for achieving 21<sup>st</sup>-century skills in North Cyprus. *International Journal of Emerging Technologies in Learning*, 12(1): 130-140.
- Karasar N 2008. *Scientific Research Methodology*. Ankara: Nobel Publication.

- Landoni M, Wilson R, Gibb F 2000. From the visual book to the web book: The importance of design. *The Electronic Library*, 18(6): 407-419.
- Lebert M 2009. *A Short History of E-Books*. Toronto: NEF University of Toronto.
- Lotrean LM, Mocean F, Laza V, Poledna S 2009. The Role of Information Technology in Health Education: Strengths and Weaknesses. *International Conference on Advancements of Medicine and Health Care through Technology*, 23-26 September, Cluj-Napoca, Romania. USA: Springer Berlin Heidelberg, pp. 73-76.
- Manso M, Guerra B, Carjan C, Sdongos E, Bolovinou A, Amditis A, Donaldson D 2016. The application of telematics and smart devices in emergencies. In: R Gravina, CE Palau, M Manso, A Liotta, G Fortino (Eds.): *Integration, Interconnection, and Interoperability of IoT Systems*. Cham: Springer, pp. 169-197.
- Öngöz S 2011. *Evaluation of an Electronic Book Prepared for the Course of Learning and Development Taught in Education Faculties*. PhD Thesis, Unpublished. Trabzon: Karadeniz Technical University, Institute of Educational Sciences.
- Perzanowski A, Hoofnagle CJ 2016. What we buy when we buy now. *University of Pennsylvania Law Review*, 165: 315.
- Pinpathomrat N 2017. Cultural model of information technology usage (CMITU). *Global Journal of Information Technology: Emerging Technologies*, 7(2): 42-49. doi: <https://doi.org/10.18844/gjit.v7i2.2227>
- Shadiev R, Hwang WY, Huang YM 2017. Review of research on mobile language learning in authentic environments. *Computer Assisted Language Learning*, 30(3-4): 284-303.
- Soydan E 2012. E-book technology and the future of printed book. *Batman University, Journal of Life Sciences*, 1(1): 389-399.
- Uzunboylu H, Hursen C, Ozuturk G, Demirok M 2015. Determination of Turkish university students' attitudes for mobile integrated EFL classrooms in North Cyprus and scale development: ELLMTAS. *Journal of Universal Computer Science*, 21(10): 1283-1296.
- Vrabie C 2017. E-Learning for all: A cross border project for strengthening the overall capacities of the CSOs. *New Trends and Issues Proceedings on Humanities and Social Sciences*, 2(7): 25-31. doi: <https://doi.org/10.18844/gjhss.v2i7.1176>
- Yılar MB, Simsek U 2016. Sosyal bilgiler dersinde işbirlikli öğrenme yöntemlerinin başarı ve kalıcılığı etkileri. *Kastamonu Eğitim Dergisi*, 25(2): 1-15.
- Yılmaz K, Naci S 2017. Eğitimde tablet bilgisayar ve akıllı tahta kullanımına ilişkin öğretmen görüşleri. *International Journal of Innovative Research in Education*, 4(1): 17-27. doi: <https://doi.org/10.18844/ijire.v4i1.1255>