



## A Comparative Study of the Characteristics of Written and Electronic Books in the Field of Curriculum

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ARTICLE INFO	ABSTRACT
<p>Received: 26 January 2024            Revised: 06 April 2024            Accepted: 02 November 2024            Online: 13 February 2025</p>	<p>The purpose of study was to compare the characteristics of written textbooks with electronic textbooks in the field of curriculum. The data collection method was documentary includes primary and secondary sources that have been collected by referring to foreign and Iranian databases. Data analysis and presentation of the results were done by using George Bereday comparative method. The findings showed that in terms of similarities, it can be inferred that both types of books pay attention to ease of transmission while integrating the contents, ease of reading, simple and convenient use for all people, coherence of the contents, and diversity of use. In terms of the differences, e-books specific features such as diversity in subject, diversity of authors, more attention to the social and individual needs of the audience, attention to modern theories of the curriculum. E-books have general features such as remote access, support for multimedia facilities, no need for physical space, ability to zoom in on the screen, adjust page and font to the desired size, search and print, easy and cost-free shipping, reduce the price, and no storage space. The specific features of the written books in the field of curriculum include similarity and repetition of the topic and dominance of famous authors in the field of publication. The general features of written books are repetition of printing, increased concentration while reading, no need to communicate with the Internet, no need for computer and other tools for reading, reduction of damage to the eyes, less use of fatigue and physical damage, the ability to touch and communicate more with the book, and an increase in desire and the passion for reading comes from looking at books in one's own library. According to the findings, it seems that the field of curriculum is going through a gradual evolutionary process in terms of the way the audience has access to resources affected by technological developments in Iran.</p>
<p><b>KEYWORDS</b></p> <p>Academic Textbook            Curriculum            Electronic Books            Written Textbook</p>	

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## **1. Introduction**

Books are one of the most important written mediums for transmitting human heritage to other generations. The position of the book as an educational medium is very important, so that before the invention of the printing press, it was propagating in handwritten, copied, and reproduced, and, it has not been possible for the general public to access it due to the high cost of reproduction (Banijamali, 2015). The importance of the book is to the extent that McLuhan has referred to the book as the first teaching machine (Bozkurt & Bozkaya, 2015). The date of birth of the book has tied to the history of calligraphy, paper, and printing. In recent years, the study of the effectiveness of scientific books has become one of the hot topics in scientometry. Citation indices are one of the most common and indicators are being used by scientometrics experts in order to evaluate the performance of individuals and institutions. From a scientific point of view, the work that is most cited by other researchers has a higher impact (Moed, 2017). It is undeniable the increasing importance of e-learning and consequently the use of e-books in the modern world. E-learning is an innovative and dynamic approach that supports diversity, removes spatial and temporal barriers, and uses new technology to improve the learning process (Shafiei Sarvestani, et al, 2019).

E-learning will provide a variety of educational options and personalization for learners by using digital platforms, multimedia resources, and interactive technologies, (Lau et al, 2014) a new method of producing books was created by arriving of computer in which there was no news about the common methods of using composites, paper, and printing machines. These types of books are called electronic books (Arabgari & Sadeghi, 2016). An e-book is an electronic version of a book that may or may not have a printed version. In the first case, the e-book is the electronic form of the printed version, and in the second case, the e-book is published in digital format and has a multimedia feature (Ameli, 2009). E-books are usually offered in the context of e-reader applications and Internet websites, which provide users with the possibility of sharing or purchasing books directly. Among the most important advantages of using e-books are access to books in real time and anywhere, saving physical space for keeping books, and reducing the costs of producing and distributing books (Connaway, 2003) These e-books and online bookstores have added a new field to the publishing industry, and it is obvious that this field needs new strategies for its survival and growth (Brynjolfsson, Smith, & Hu, 2005) In another definition, an e-book is a type of digital source of information which has been designed in a coherent, codified, purposeful, and specific way and can be presented through electronic tools such as computers, book readers, or other mobile technologies (Rao, 2001). Ted (2005) also defines e-books in the sense of e-books as

well as in the category of electronic devices. Kolofel and Kandrup (2003) state that the added value of book-reader services will increase after the transition from paper to digital. Chrzastowski (2011) states that in a broader range, e-books provide better economic value for the library when the costs of activities compare such as: processing, lending, storing, and storage. A second space has been created by development of information and communication technology, that is parallel to the real world, and repeats all the elements and components of the real world in its own. Using new techniques and tools in curriculum subjects has become inevitable due to the emergence of rapid developments in the field of technology and its impact in various fields, especially education. Using new techniques and tools has become inevitable in curriculum subjects. The penetration of these technologies has been increased by development of information and communication technology.

The evolution of these tools and methods is in a direction that everyone can learn at any time and in any place. Many phenomena and concepts take a new form in the process of transition to the information society, and make themselves compatible to the changes created by changing the framework. E-books are a completely new phenomenon that is expected to fundamentally change the educational and information system. Today the need of learners in the current era is not only access to information, but also the speed and ease of access to it, is one of the reasons that have increased the importance of information and communication technologies. It is expected that e-learning will gradually replace traditional education. Today, according to new educational theories, the best type of learning is interactive learning. Among the characteristics of this type of learning, we can mention the use of multimedia tools and inclusive participation in the learning process. One of the tools required for this type of learning is the existence of e-books, the difference between reading ordinary books and e-books is that learning through e-books is an interactive type, and this is one of the most valuable features of using this new technology. Today e-books are as accessible to users as written books: The Internet, smartphones, ease of access, downloading e-books, full-text search, download and printing options, making it easy to copy and search, are the main attractions of making e-books as readable materials and reasons for the development of e-users (Lawson Body, et al 2018). Today, the use of e-books in learning is a necessity and an alternative to the practical application of e-learning media (Lee, et al 2019 as cited in Achdiani, 2021). Littman, and Connaway (2004) state that e-books offer benefits to the library, such as: it does not require physical space and re-shelving, it is never lost, it is not damaged, it is not stolen, or it is impossible to return back the book late to the library. The value chain and production is changing with the transition from the digital industrial age, across all industries. This law also applies to the publishing industry. The emergence of the Internet and electronic purchasing from one benefit and the introduction of

electronic reading tools, remote access, ease of transfer while integrating contents, inter-content exchange with each other, support of multimedia facilities, ease of work, implementation with electronic resources and new communication media on the other hand have led to the rapid growth of this industry (Shaverdi, 2013). Regarding the research issue, it is necessary to look at the results of previous research in different countries and Iran. For example, in a study conducted by Chen et al. (2023) on the effect of interactive e-books with games on the performance and learning motivation of students in a flipped learning classroom, the results showed that students in the GIEFC group scored higher than students in the TFC and TTC groups in terms of learning achievements and motivation. The experimental results also showed the positive effects of interactive e-books in the learning of the changed classroom. The results of a study at the University of California (2021) showed that students who were using e-books scored better on tests compared to students who were using printed books. The results of the general findings show that e-books give a positive response to students.

The latest survey of behavior in business schools at Brigham Young University shows that 61% prefer books in print format when choosing, and There are two important reasons ease of reading and portability for choosing print form. Strauss and Genie (2017) in their research showed that children who are reading e-books learned more words and have had more socially desirable behavior while reading. Tosun (2014) investigated students' preference for reading printed books and e-books and their causes. 20.9% of the students had read an e-book based on the answers given to the researcher's questions. The rate of e-book reading has been reported by students in the fields of computer education and educational technology and social science education to be higher than other disciplines. The students who had preferred to read the printed book have mentioned reasons such as not having the technology to read the e-book, eye health, and the fact that they like to hold the book in their hands. In another study, 97 percent of respondents said they feel comfortable reading from a computer screen. In this study, 22% of the respondents have stated that they have read an e-book, while 44% of the respondents have stated that they want to buy e-books more than traditional books. On the other hand, a small number of respondents stated that they prefer paper-based books to electronic books (Buzzetto-More et al, 2007). Picton (2014) has conducted a study titled "The Effect of E-Books on Motivation and Reading Skills in Children". The findings suggest that children's reading motivation and skills may be influenced by many factors such as gender, age, and social backgrounds. In the meantime, e-books can be a good suggestion for those people who do not want to read printed books. In this study, the important role of education has also been mentioned through electronic texts in students' literacy. Bass et al (2014) have

conducted a study titled "The Efficiency and Limitations of E-Books in Children's Literacy". In this study, the negative and positive effects of e-books have been mentioned on children. The findings of this study show Features such as moving images, music, and sound in e-books can lead to the integration of non-verbal information, if they match the text of the story, and improve memory performance. On the other hand, interactive features may create an additional burden on children's minds and cause their poor performance in vocabulary development and reading comprehension. Shirey and Reynolds (2012) in a study titled "The Effect of Interest in Attention and Learning" concluded that interest in learning materials can lead to attention and learning. These results showed that although new and interesting content is a learning strategy, it is not a definite factor in the interest in learning, and the interest in learning is not a necessary and sufficient condition for the academic performance of students. Shamir and Shlafer (2011) have investigated the effect of e-books on the promotion of knowledge and concepts related to writing.

The findings show that education through multimedia e-books can improve the performance of children in both groups (with learning disabilities and normal ones). This performance improvement has become more apparent in children with learning disabilities in concept related to writing, such as level of awareness about the text, page line, and writing, reading path and etc. Moody (2010) showed that children's comprehension is much higher in attention to text, and storytelling when using e-fiction books compared to traditional or written books. McFaul (2005) in a study showed that there is no significant difference between the learning of students who used electronic content and students who used printed content. Christianson and Aucoin (2005) conducted a study titled "Patterns of Use of Electronic Books" on the Net Library database. Using the obtained statistics, he concluded that the acceptance rate of these books is much higher than the social sciences and humanities, due to their use in fields such as computers, technology, and special sciences. Also, Bennett and Landoni (2005) analyze in their article entitled "Electronic Books in Academic Libraries" the current situation in relation to electronic books. The findings of this study showed that people who were aware of e-books considered it as a useful tool. However, a number of users, are still unaware of their existence, despite the library's high supply of e-books. most of the researches related to e-books, libraries and librarians have been related to the levels of use, the amount of use, the way and why of use, the pattern of use, the preference between print and paper formats in different fields, and the management of electronic books.

In Iran, several researches have been conducted on printed and electronic books during the last decade in particular, the results of some of which are mentioned: Mazandarani, Taqaddami, & Armand (2022) entitled The Transmissibility of Academic Textbook Standards to E-Learning

Content in their research: The Viewpoints of University Lecturers concluded that the most transferable items were the group of educational, linguistic, and content standards, respectively. The socio-cultural standards group were reported to be transferable to an acceptable extent. Finally, the lowest perceived transmissibility was related to the structural, apparent and technical standards group. The qualitative findings of the research also led to the extraction of four themes, including basic principles in all environments, added possibilities of e-learning content, flexibility, The compatibility of standards and the challenges and drawbacks of standards etc. The insights obtained from the present study can have significant theoretical and practical implications for the development of local standards for the preparation of academic electronic content in Iran. Fahimifar, & Ghaebi (2008) in their research entitled "Electronic Books from the Viewpoint of Information Science Professionals Working in the Central Libraries of Universities in Tehran" investigated the benefits and problems of providing electronic books. The findings show that hardware and software problems, lack of a public catalogue in the field of e-books, low level of familiarity of users, and factors such as eye fatigue while reading these books are among the problems related to these books from the perspective of academic librarians. The main purpose of this study is to investigate the differences and similarities between electronic and printed books in the field of curriculum. Ebrahimi, & Faraj Pahlou (2022) in her research entitled Investigating the Relationship between Quality and Final Price of Information Goods: A Case Study of Information Science Books, presented in the Amazon e-store, they showed that "quality" and "price" are two basic elements in managerial decision-making related to the provision of information goods. Many consumers accept price as a criterion for quality, and in contrast, many manufacturers and sellers consider higher prices for their goods in order to instill quality to the customer. Measuring the relationship between these two variables in information products such as books and magazines is a way for managers to make decisions in this field. For this purpose, the present study investigated the correlation between the quality and price of books in the field of information science. The findings of the research indicate that there is no significant relationship between these two variables and price cannot be considered as a quality indicator in information goods. Accordingly, today it seems that highly competitive economy and market, the conditions for economic success and survival have changed and the equations of the relationship have been disrupted between quality and price. Today in economy, important issues such as optimization are raised, where competitors try to improve quality in a way that has the least impact on the price in order to take over the market, and the consumer does not want to pay more for achieving quality. Naqsh, and Khatib Zanjani (2020) in their research titled "Factors Affecting the Development of the

Attractiveness of Electronic Books" showed that there is a significant relationship between the four dimensions of accessibility, interoperability with the book, and the flexibility of the book and the multimedia of the book with the development of the attractiveness of e-books, at the level of  $P > 0.05$ . Learning motivation mediates the relationship between the four dimensions (accessibility, interoperability with the book, and flexibility of the book, multimedia of the book) and the development of the attractiveness of e-books. Ebadollah Nejad (2020) in his study entitled *Feasibility Study of E-Book Compilation at the University of Mohaghegh Ardabili* concluded that the components affecting the compilation of digital books are significantly lower than the average such as information technology, financial support of specialized human resources (1983), the attitude of professors, and the rules of the university, and therefore, with the current conditions, so it is not possible to compile e-books in this university. Rahmani (2018) in his research entitled "Analysis and Identification of the Process of Collecting Printed and Electronic Books in the Central Libraries of Public Universities in Tehran" concluded that for the collection of electronic books, university libraries did not have a written and codified policy, and they used it to provide them through free download methods, purchase of a collection of resources, subscription through databases, or exchange and cooperation between libraries. Hassanvand (2017) in his research entitled "Comparison of the Economics of Electronic Book Publishing with Paper Publishing" concluded that, its profitability is low due to the low circulation of paper books. However, many publishers do not follow this method of publishing books because they have been harmed due to non-compliance with copyrights. Based on the results, the most important proposed solutions to solve the economic problems of physical publishing are: Stopping the payment of any government subsidy to publishers, the government's efforts to create the necessary infrastructure to carry out printing and publishing activities, and equipping printing houses with modern printing machines. Pajouhnia (2017) compared the effectiveness of education by e-book, written book, and traditional education on emergency literacy skills, and concluded that the scores of the post-test, after the intervention, were different in three groups of education by e-book, written book, and traditional education. In their research, Haseli, Naghshineh and Fahimnia (2014) stated that the activity of libraries in a competitive environment requires them to prove their usefulness for users and officials, and to continuously evaluate and compare the privileges of print and electronic media. Also, the findings of this study showed that the use of printed English books is different in four subject areas: technical, basic sciences, social and behavioral sciences, and humanities, while there is no difference between the uses of electronic English books in these four subject areas. Also, the use

and cost-effectiveness of English e-books are higher than printed English books (Mincic-Obradovic, 2011).

## 2. Research Method

The purpose of this study is to compare the characteristics of written books with e-books in the field of curriculum in Iran. The present study is a qualitative comparative study of an applied type that has been done with the help of George Brady model. Method data collection is documentary and includes primary sources (34 sources) that have been selected according to criteria such as publication in Persian, relevance to the curriculum and accessibility. Secondary sources include all articles, books, and dissertations related to the research topic in reputable and well-known Iranian and foreign databases published in the period 1992-2023. To analyze the data, thematic content analysis was used, which is a method for recognizing, analyzing, and reporting patterns in qualitative data (Attride-Stirling, 2001).

## 3. Findings

### A. Description

#### *Characteristics of a written book*

According to the method of collecting primary sources, the specifications of the selected printed books are presented in Table 1:

Table 1: Specifications of Selected Printed Books

No.	Name of the book	Author/s	Year of publication	Number of pages	Publisher
1	Educational evaluation with emphasis on elementary school	Armand & Naseri	2023	171	Faraelm
2	Curriculum planning	Fallahpour	2023	220	Nowruz
3	Designing educational systems (decision-making in curriculum planning and curriculum design)	Fardanesh	2020	425	SAMT
4	Elementary curriculum planning Planning, implementation and evaluation	Mohammad Javadipoor et al	2020	252	SAMT
5	Curriculum Planning and Activation of the Teaching and Learning Process	Hosseini	2019	96	Siadat
6	Basics and principles of curriculum planning	Karamati	2019	232	Samt

7	Principles and concepts of curriculum planning	Fathi vajargah	2018	188	Ostadan e elm
8	Theoretical and practical basics of curriculum planning	Translated by Seyyed Ahmad Madani	2018	670	SAMT
9	Curriculum planning for secondary education	Javad Hatami et al	2019	361	SAMT
10	Comparative Studies in the Curriculum (A Study of the Educational System and Curriculum of the World Countries)	Armand	2017	316	Ayeezh
11	Principles of curriculum planning	Soheila Alizadeh	2017	248	Moallefin e Taiayee
12	Curriculum planning	Shabani et al	2015	616	Avaye Noor
13	Basics of secondary education curriculum planning	Mohsenpour	2014	175	SAMT
14	An Introduction to the Method of Designing and Writing an Academic Textbook	Armand & Maleki	2012	155	SAMT
15	New perspectives in educational planning	Mashayekh	2011	175	SAMT

These books can be used in any place without the need for the Internet and reduce the damage to the eyes, they are simple and convenient for all people, they have a good financial benefit for the author and publisher, they do not need a special device for reading, they learn better from them, it is possible to touch and communicate more with the book, they have a good feeling in getting right. Increasing the desire to read is provided by looking at books in one's own library, and it is possible to take notes in their margins.

#### *Features of the e-book*

According to the method of collecting primary sources, the specifications of the selected e-books are presented in Table 2:

Table 2: Specifications of Selected E-Books

NO.	Name of the book	Author/s	Year of publication	Number of pages	Publisher
1	Curriculum Design in Higher Education from Theory to Practice	Hosseini Larganiet al	2022	204	Institute for Research and Planning in Higher Education
2	Curriculum Planning Basics	Maleki	2022	256	Samt

3	Lesson Planning (Action Guide)	Maleki	2022	304	Borhan Cultural School
4	Fundamentals and Principles of Curriculum Planning	Yarmohammadian	2022	290	Yadvare Ketab
5	Curriculum Planning Methods	Mehdizadeh & Maheri	2021	176	Ayeezh
6	Curriculum Management	Khosravi	2021	166	Elm e Ostadan
7	Curriculum: Perspectives, Approaches, and Perspectives	Mehrmohammadi	2020	652	Samt
8	Curriculum change and implementation	Mehrmohammadi et al	2019	264	Samt
9	Curriculum theories	Mehrmohammadi	2019	288	Samt
10	Educational Sciences: Its Nature and Scope	Kardan	2019	384	Samt
11	Theoretical and Practical Foundations of Curriculum Planning	Madani	2019	640	Samt
12	Some basic topics in curriculum planning	Shariatmadari	2018	64	Samt
13	Discourses in Higher Education Curriculum Planning	Fathi Vajargah	2017	544	Khorsandi
14	Curriculum Cultures	Mehrmohammadi	2017	304	Samt
15	Methodology of Curriculum Studies	Mehrmohammadi	2017	436	Samt
16	The Hidden Curriculum in Higher Education	Fathi Vajargah & Bazdar	2016	251	Mehraban Book Publishing Institute
17	Basic Principles and Concepts of Curriculum Planning	Fathi Vajargah	2015	367	Elm e Ostadan
18	Curriculum Towards New Identities: An Explanation of Contemporary Theories of Curriculum	Fathi Vajargah	2007	310	Science of Professors research Institute for Curriculum Planning and Educational Innovations

As for e-books, it can be said that they can be accessed remotely, they can be easily transferred with a large volume while the content is integrated, it is possible to exchange content with each other, they support multimedia or multimedia facilities, they are easy to use and take up less physical space, on the other hand, they are easy to update, they have the ability to zoom on Pages and fonts and it can be scaled up while reading, they can be searched and printed, they are easy to transport and free of charge, their purchase costs are lower, they can save time to search for contents, they have the possibility of reducing the losses caused by not selling books, they do not need space to store books and consequently it is possible to reduce the cost of rent, as well as The

possibility of adding text, audio, music, and books, the possibility of using hyperlinks to refer to other pages is one of their advantages, and protecting the environment, suitable facilities for the blind, and not visiting stores in person are among the features of these types of books.

### *B. Interpretation*

Written university textbooks have been used by students since the establishment of universities, but electronic books are an emerging phenomenon that has been used alongside written books in recent decades, and the current conditions have made it necessary to use these types of books. Currently, the use of e-books is increasing as handheld display devices such as tablets become increasingly available. Also, e-books in Iran are available on a variety of practical software for reading books such as niche, feed bio, book, etc. Or they are being published on different sites. Such software and sites have been able to attract many users. The changing learning environment encompasses modern concepts such as digital literacy and the ability to think critically. It also enables them to succeed in the complex world of e-learning.

### *History of Written Books*

Book is one of the most important pillars of communication between nations and ideas throughout history. The advancement of knowledge in different fields of science requires the exchange of information and their ideas and the sharing of researchers' activities. Book publishing has become a cultural industry in the era and is considered one of the criteria for the development of any country. The publication of books was done through writing and manuscript reproduction of a small number of manuscripts from the beginning of the emergence of calligraphy in Iran, probably in the first millennium BCE, until the transfer of inscriptions on leather pieces in the era of Gikhatun, the Mongol ruler in Iran, according to a narrative, or the first printing of Christian scriptures in a Gutenberg way, by the Armenians living in Jolfa in Isfahan in the Safavid era. The determination of a definitive date depends on the definitions for the pre-publication period that are given for the alphabet, calligraphy, pattern (initiation stage), and printing, and any transition of the role (the initiation stage), and the printing and any transfer of the role (the stage of the ending). For example, the first tablets and inscriptions of the Achaemenes era can be considered from around 550 BC as the beginning of written publication and the year 1048 AH (1638 AD) as the year of the publication of the first book published in Iran as the end of the pre-publication period (Azarang, 2003, pp. 1 and 2). The spread of printing technology in the Qajar era (1831-1925) provided a completely unprecedented possibility for the dissemination of opinions, ideas, and emotions, as

well as informing and alerting cultural circles, literary, scientific, intellectual assemblies, and other groups that had a special opinion and analysis, and the accelerated, influential, and influential phenomenon began in which publication was the main factor, and the evolution of society began in the sphere of influence of another emerging factor.

### *History of e-Books*

Since the technology of printing became at the service of publishing and the reproduction of any work in any number of elements was possible, a great obstacle was removed in the way of the transmission of human thought and feeling, and he overcame three elements that had previously been insurmountable obstacles in his path: time, place, and language. In fact, today the phenomenon of globalization, which is one of the common debates in intellectual circles somehow began with the Renaissance and the emergence of printing and the emergence of new publishing. In simple sense of the word Electronic publishing or network publishing means the collection of knowledge, techniques, skills, tools, equipment, and achievements of knowledge and the electronic industry in the service of publishing. Publishing has been transformed with the introduction of equipment and technology that was called "desktop publishing since the late 1991s. This publication is the introduction to electronic publishing and is the exclusive end of publication that relies on printing. Electronic publishing was created after the prevalence of global networks in different countries, but the extent of its use in these countries depends on several factors, including the technical ability to use its facilities and the extent of access of community members to computer equipment. At present, many countries have created facilities that their governments have provided to authors in the way of using computer and network facilities, and it has emerged a kind of publishing independent of the publisher and publishing intermediaries. Estimates show that this same publication can be very effective in cultural creations and intellectual exchanges apart from electronic printing, (Azarang, 2003). Although the rate of e-book publication is increasing in the world by publishers and collectors of e-books day by day, this process is still in the early stages of development. Therefore, innovations should be made in them in order to make them more efficient and absorbed by users, (Niknam, 2002; Alidousti & Sheikhshoaei, 2006). in fact, the production of electronic books has made a way which first started from the divans of classical Persian poetry and various dictionaries, and change existing printed books to electronic books, to various educational fields, from teaching elementary and secondary courses to some of the most demanding university courses. Although Some e-books which are translations or extracts from foreign originals, indicate that their publishers pay attention to more specialized fields that they do not have a large audience,

the paper book does not meet their needs. For example, the function of an electronic book with multimedia capability on documentary filmmaking training is not comparable to several paper books on the same subject, and it's very large audience doesn't tend to pay the price easily and satisfactorily. Although the production of electronic books is generally new in the true sense of the definition from the beginning in Iran, but now the supply of paper books in digital format is available to readers and demanders or in other words, PDF files of printed books. One of the existing problems is that some institutions and websites publish the works of print publishers electronically according to the needs of the audience and sometimes their welcome, and this is generally done through photocopying of the printed version of the book (Rahbani, 2009). the above market is at the beginning of its journey and is taking its first steps in Iran despite the expanding market for e-books in the world. Now all that is available is the possibility of downloading and exploiting the books that the P.D.F. are placed on the Internet voluntarily or illegally and are sold for free download or sold illegally. Currently, no publishing house publishes an electronic book in the form of free flow in Iran. Also, Publication of the P.D.F. is not liked by Iranian publishing companies at all due to security problems, while it lacks the capabilities of e-books in e-pub formats and the same. Thus, in general, there is still no market in the field of e-books in Iran and no services are provided (Banijamali, 2014). The idea of e-books was introduced in the 1970s in Iran at the same time as the emergence of this technology in the world. At the time, pioneers in the field were looking for ways to store and display text digitally, with sporadic efforts.

*1970s:* In this decade, the Computer Research Center of Iran, developed the first "screen reader" device, in cooperation with Shiraz University in Iran. The device, which used OCR (Optical Character Recognition) technology, could convert printed texts into digital code.

*1980s:* In this decade, the Institute for Cultural and Social Studies, published electronic versions of a number of Persian books in the form of DOS software in cooperation with some publishers.

*1990s:* accessing to e-books was provided on a larger scale with the expansion of the Internet in Iran. During this period, several websites were launched that were providing e-books in various formats such as PDF and HTML.

*2000s:* In this decade, we witnessed the emergence and development of Persian e-reader software such as "Niche" and "Mobile e-reader software". This software allowed users to read e-books on their computers and mobile phones.

*2010s:*

- *Growth of online book stores:* In this decade, online book stores such as "Amazon Iran" and "Digikala started offering e-books alongside printed books." This helped increase the accessibility and ease of purchasing eBooks for users.
- *Emergence of Electronic Book Readers:* At the end of this decade, we witnessed the entry of electronic e-reader devices such as "Kindle" into the Iranian market. These devices provided users with a reading experience close to printed books with their electronic ink screens and the ability to store a large number of books.
- *Rise of Pioneers:* We witnessed the emergence of a new generation of activists in the field of e-books with the expansion of the Internet in the late 1990s in Iran. These people set up websites and online forums to provide e-books for free or at low prices. Among the pioneers in this field, we can mention the "Pars Electronic Library" and the "Noor Electronic Library", which were valuable references for students and researchers at that time.
- *Birth of the first generation of e-readers:* In 2001, Microsoft launched its first e-book reader called "Microsoft Reader". Despite its high price, this device was considered by some e-book enthusiasts in Iran as an attractive innovation. In the following years, we witnessed the entry of other models of electronic readers into the Iranian market, but due to the high price and technical limitations, they could not be widely accepted.
- *Emergence of Iranian Book Readers:* In 2007, "Dodger" Company launched the first Iranian electronic book reader called "Divan". This device quickly became popular among e-book enthusiasts with a much cheaper price than foreign ones. The Divan is known as a milestone in the history of e-books in Iran with facilities such as support for various e-book formats, the ability to store audiobooks, and the ability to connect to the Internet.
- *Expansion of the e-book market:* We witnessed a significant growth in the e-book market with the introduction of Divan and other Iranian book readers, in Iran. Iranian publishers and writers also gradually started publishing electronic versions of their books. During this period, numerous online stores were set up to sell e-books, which helped increase people's access to these types of books.
- *Emergence of smartphones and tablets:* Another development took place in the field of e-books with the entry of smartphones and tablets into the Iranian Market in 2011. These devices were used as an ideal tool for studying e-books with their many capabilities. It became possible to buy and download e-books with the advent of applications such as "Niche" and "Ketabrah", easily and at a reasonable price, and it helped to further spread these types of books among people.

### *History of Curriculum*

The 1930s and 1940s should be called the decades of curriculum planning education. Among them, two American universities, Columbia University and the University of Chicago, were pioneers in the field of holding conferences and establishing scientific societies for curriculum planning. The emergence of curriculum planning as an independent field of study or field of study occurred at the University of Chicago's School of Teacher Education in 1938, which coincided with the establishment of the first curriculum department in the world. The first curriculum group was led by Hollis Keswell, the curriculum leader at Columbia University in the 1930s. In 1926, the first curriculum laboratory was established at Columbia University's School of Teacher Education, and it was the second school to establish the field of curriculum planning in the United States, and by 1940 it attracted thousands of courses and intellectual fields in the field of curriculum planning from all over the world (Tanner, 1991). Most European countries also established courses or courses for students and instructors in the field of curriculum planning, immediately after the end of World War II, in the United States in the 1950. The methods of holding training courses were different in the United States and Europe. In the United States, graduate courses were held separately, and universities offered masters and doctoral degrees in curriculum planning. But in Europe, universities and teacher training centers focused only the research trends of education students on curriculum planning topics. In the following decades, there was a shift change from curriculum planning to curriculum understanding, and the title of the field changed from curriculum planning to curriculum and in the following decades as a field of curriculum studies. The establishment of curriculum planning occurred much later in other Asian, African, and American countries, in the 1960s and 1980s. In other words, in the 1980s, the field of curriculum planning had become a global field of study and one of the important trends in the field of educational sciences, and most educational centers, faculties of education, universities around the world, and even international institutions such as UNESCO held educational and research courses in the field of curriculum planning. By the end of the 1990s, the field of curriculum studies had become a global discipline. The field of curriculum studies was born in America and curriculum theory grew and developed in North America for a century. The rest of the world, had not been able to show their theoretical interests in the field of curriculum planning in a historical way, so most theories developed in the United States despite a long history in the field of curriculum practice. Kleebard writes: "When I was a master's student in curriculum planning, the history of curriculum did not exist as a specific field of study, and now some of the elements of curriculum history that we are

interested in, were generally expressed in the general history of education" (Kliebard, 1992, quoted in Ghaderi, 2014). By reviewing written books and e-books, the researcher came to the conclusion that most of the authors of books are university professors who have spent a lot of time writing books in the past. Also, most of the books have been published in Tehran, on the other hand, most publishers have located in Tehran than in other cities, the apparent quality of books has changed compared to the past, and the price of books in the past 40 years had been affected by inflation, and at the same time as the price of paper has increased, the price of books has also increased., textbooks have been considered as the main tool for presenting the content of courses in educational institutions Since the boom of the printing industry.

Although it seems that textbooks are less useful for both students and teachers and professors, the speed of information production has increased over the past 50 years, and so the number of textbooks has increased. Therefore, it has become very difficult to find textbooks that effectively fit the topics or topics of a particular unit. This is especially tangible for interdisciplinary courses. Publishers and authors have a choice in at least two important areas in the field of textbook content and organization. These are the two levels and depth of the text. The level of the text relates to the intended audience and determines the vocabulary used to elucidate and analyze the concepts that cover the text. A textbook with a high level of inclusive information requires a reasonable extent, the content knowledge already acquired by the reader. Whereas low-level textbooks (in terms of available information) often seek to instill simple concepts, especially for readers who are new to this field and want to understand it. Depth is the determination of the degree of detail in the content covered.

### *C- Juxtaposition*

According to the data analysis, the research findings indicate the existence of distinct components or characteristics for each of the two groups of printed and electronic books. The characteristics of printed and electronic books are:

Table 3: Juxtaposition of Printed and Electronic Books

Books	Features
Printed	Ease of transmission while integrating the contents, coherence of the content and variety of uses, the ability to add text, enhance memory and increase the concentration of reading, use anywhere without the need for the internet, reduce damage to the eyes, appropriate financial benefit for the author and publisher, no need for a special device for reading, less fatigue and physical damage, the ability to touch and communicate more with the book, a good feeling in getting the right one, increasing the desire and enthusiasm for reading By viewing books in a personal

	library
E-Book	Ease of transfer while integrating the contents, coherence of the content and variety of uses, exchange of materials with each other, support of multimedia facilities, ease of work and implementation, small volume, having the ability to zoom on the page, the ability to search and print, easy and free transportation, reducing the costs of buying books, saving time for searching for the desired book, reducing the losses caused by not selling the book, no need for space for storing books, The ability to add text, protect the environment, suitable facilities for the blind, not visiting bookstores in person, and the possibility of changing the format and format of texts

Table 3 shows that printed books have 12 characteristics. The most important features of printed books are things such as ease of transmission while integrating the contents, coherence of the content and variety of use, the ability to add text, enhance memory and increase reading concentration, the ability to touch and communicate more with the book, the good feeling in getting the right thing, increasing the desire and enthusiasm to read by looking at the books in the personal library. Also, the table above shows that e-books have 18 important features. The most important features of e-books are such things as not going to the bookstore in person, not needing space to store books, supporting multimedia facilities, ease of work and implementation, being small in size, having the ability to zoom on the page, the ability to search and print, easy and cost-free transportation, and reducing the costs of buying books.

**Table 4: Specific and General Features of Electronic and Written Books**

E-book Exclusive Feature	Specific features such as diversity in the subject, increasing the scope from the perspective of subject diversity, author diversity, paying more attention to the social and individual needs of the audience, paying attention to modern trends and theories of the curriculum
General Feature of E-Book	General features such as remote access, inter-content exchange, multimedia support, no need for physical space, page zoom and page size and font size, search and print capability, easy and cost-free transportation, low price, time saving for searching for a new book, and no storage space
Specific Feature of Written Books	The specific features of a written book published in the field of curriculum are: similarity and repetition of the theme, and the dominance of famous authors in the field of publishing
General Feature of Written Books	General features such as repetition of printing, increased concentration while reading, no need to communicate with the Internet, no need for computers and other tools for reading, reduction of eye damage, less fatigue and physical damage, the ability to touch and communicate more with the book, the possibility of writing notes in the margins of the book, and the increase in the desire and enthusiasm for reading by looking at books in a personal library

#### D. Comparison

Despite the different characteristics that both types of books have, each has its own fans and people prefer one type of book according to their circumstances. However, the e-book market is becoming more and more prosperous. So over the next few years, they will recover further. The choice between e-books and written books depends on each individual's needs and preferences. Some prefer to use both methods and use each in different situations. It is important that they are able to make decisions for themselves in the best way and take advantage of all the possibilities and benefits that each one offers.

Table 5: Comparison of Electronic and Written Books

The most important components extracted	E-Book	Written Books
Remote Access	*	-
Ease of transfer while seamlessly content	*	*
Consistency of content and variety of application	*	*
Inter-content exchange with each other	*	-
Multimedia support	*	-
Ease of operation and implementation	*	*
Bulking	*	-
Having the ability to zoom in on the screen	*	-
Ability to Search and Print	*	-
Easy to Transport and No Cost	*	-
Reducing the costs of buying books	*	-
Saving time to search for the desired book	*	-
Reducing the losses caused by not selling books	*	-
No space needed to store books	*	-
Ability to add text	*	*
Protecting the environment	*	-
Suitable facilities for the blind	*	-
Not going to bookstores in person	*	-
Ability to change the format and format of texts	*	-
Boosting memory and increasing reading concentration	-	*
Use anywhere without the need for internet and...	-	*
Reducing eye damage	-	*
Simple and convenient to use for everyone	*	*
Appropriate financial profit for the author and publisher	-	*
No need for a special device to read	-	*
Less fatigue and physical harm	-	*
Ability to touch and communicate more with the book	-	*
The good feeling of holding in your hand	-	*
Increasing your desire to read by looking at books in your personal library	-	*

According to Table 5, it can be said that out of the total 29 features of books, 5 characteristics are similar in both groups and 24 are different. Regarding the differences and similarities between e-books and written books, the similarities between e-books and written books can be known in the following cases: Written books and e-books are very similar to each other. Both of these types of books are used as a means of reading text and looking at pictures. Both of these types of books include a variety of texts, stories, poetry, scientific materials, etc. are literature. Also, both of these types of books can be used for teaching and learning. In addition, all of these types of books are protected by copyright laws, and there are legal restrictions on their distribution and sharing. Nowadays, in many cases, electronic and written versions are printed and published simultaneously so that the audience can choose a better option for themselves according to their needs. Also, in some e-books and written books, words are highlighted when the narrator reads, this feature helps readers understand between the written words and what the author and narrator are saying. There is always a concern that the written book market may be damaged with the entry of books in the electronic market, but some people were able to make a profit from both the e-book market and the written book market with sufficient information in this field. Publishers in this market have been able to direct the audience of their written books to e-books as well. Another similarity between reading written and electronic books is the sense of curiosity, asking questions, having special moods and emotions, creativity, and innovation.

#### *Differences between e-books and written books*

According to the studies and studies conducted on the differences and similarities between e-books and written books, it can be mentioned that the differences between e-books and written books are as follows: It does not have physical volume and weight, so it is possible to store thousands and even millions of pages of books on mobile phones or tablets, and carry this large library with you anywhere and anywhere. On the other hand, in addition to the nostalgic feeling of turning pages, written books are more effective which is one of the interests of many book readers, and according to research, they also increase people's learning. E-books have had the best growth in the book market, with the advancement of technology and many people enjoy reading books in this way. E-books are cheaper and can be more easily transported and are quickly found. However, some people believe that reading a written book is better and leads to a better connection with the text. Also, these books work without batteries and can be kept forever. On the other hand, the written book, as a physical copy of the book, still has its place in the book market. This type of book is produced by printing text and images on paper and is usually arranged in a format with a cover

and a binding and must comply with printing standards. Some of these books are hardcover and some are paperback, and at the end, each of these books can contain fiction, non-fiction, poetry, etc. It is still possible to buy written books through bookstores, libraries, stationery stores, and various shops. Also, in general these books are still popular and for many people, reading a written book is still an enjoyable experience despite the advancement of technology and the growth of e-books. When it is talked about an e-book or e-book, it is said that these books are a digital version of a printed book and can be read by using a computer, tablet, or e-book reader. To make these books, the text and images of a book are converted into a digital format such as PDF or EPUB, and these books can be read by using software such as Adobe Digital Editions or Kindle. Also, these books can be purchased and downloaded through online stores such as Taghche, Fideo, and Ketabrah.

- *Comparison of reading comprehension and learning rate:* The reason for analyzing the result was that the reason for the difference in the volume of reading comprehension of users after reading the written and electronic versions of the book was the different feelings they had when touching the pages of the books. In fact, electronic prescriptions are not as understandable, comprehensible, and digestible to users as written versions.
- *Distinction in packaging and design on the cover and binding and impact:* The design on the cover and packaging of written books has a kind of beauty and special attention, which is sometimes lost in e-books. Similarly, we can refer to book binding, the size of the book that is being held, or the style of Chinese characters, which are carefully selected by companies for their written books, which gives the reader a different reading experience. We need a new generation of publishers and writers who create new works of art alongside technology.
- *Differences in the way each of the written and e-books are shared:* You can write a written book with personal notes in any part of the book and lend it to your friends or take it back, but you can never lend a copy of your e-book to someone else. Digital Rights Management (DRM) or unusable e-book formats together prevent this feature from being shared.
- *How each of the books is kept and sometimes left unused:* Another issue of e-books and digital rights management is the accessibility of the books for the individual. That is, if we buy an e-book. We can read it, or maybe we can even read it a few more times, and we can save it after reading it, and if necessary, maybe we can read it again in a few years. It seems that there will not be a single format for e-books and digital rights in the future.
- *Difference between the availability of second-hand books for the written type at a reasonable price:* Many users of e-books point out that e-books are very expensive, especially in the first

editions, and on the other hand, it is not possible to find a second-hand version of them. As mentioned above, e-books cannot necessarily match this feature of written books. However, the price of e-books will become more flexible and cheaper over time. Even now, e-books can be purchased cheaper than their written price.

- *Differences in the quality and screen size of each type of written and electronic devices:* Differences in the quality and size of electronic devices screens compared to written books were also other factors affecting these results. On the other hand, the amount of text volume is also one of the important and fundamental factors in the difference between written and electronic books that is included in each page of written and electronic books for users' display. E-book publishing is one of the new topics in the digital world, which helps the electronic version of a book using electronic devices such as tablets, book readers, and computers without the need to print and physically touch the pages. One of the advantages of the electronic version of the book is the lower cost which has for the buyer. Many book publishers have compared the price of e-books with the price of written books, due to the lack of the need to print and distribute books, and have created a significant difference in the price between the two versions of books. In addition to the lower cost, there are other benefits to buying an e-book. One of these advantages is the speed and ease of accessing books. Also, with electronic devices, you can carry your books with you at all times as if you were a big book carrying books all the time. However, although the price of an e-book is lower than the written version, there is no difference in its quality., printing e-books may reduce the quality of the book's images due to the need for PDF or EPUB files and is listed as one of the problems with the e-book. Ultimately, the growth and development of e-books is moving towards the growth of this method of buying and selling books, and the price of e-books can be important for buyers who are looking for a good quality book.

#### **4. Conclusion**

In today's societies the development of technology and virtual networks has changed people's needs to a great extent and even led to a change in their lifestyle. These changes have prompted authors and curators to move towards the use of new technologies and e-books according to new needs. One of the fundamental changes has been in the field of e-books that has led to the formation of electronic book design and compilation. Sources related to this issue have shown that the comparison of electronic and written books in higher education is an important and fundamental issue. Research has shown that each of these two types of content has its advantages

and disadvantages, with different effects on the experience and learning of college students and professors. Today, many educational institutions have turned their attention to web-based distance learning. Many higher education institutions hold virtual education programs, and now many other educational centers such as universities are preparing and preparing virtual programs. Nowadays, the volume of written information in the educational environment increases at an astonishing speed with the development of the information highway, computers, economic reasons, and various other things, by entering the new communication environment. Although new technologies can be useful in education and transcend the limitations of time and place, the mere presentation of content through new technologies does not change the quality of education, but rather the coordination and conformity of the content with the existing accepted standards, which can ensure the effectiveness of the content in education, and electronic content is no exception. The design and production of virtual educational content has become one of the main challenges due to the emergence of virtual education design as well as very few knowledge and experimental achievements in this field. Considering that most of the educational content is produced in the form of educational multimedia, and since the production of multimedia is based on certain standards and principles. Paying attention to the level of observance of these principles and standards in the content of virtual education becomes of particular importance and necessity. Certainly, it is easy to use the characteristics of standards in the production of electronic textbooks, but these standards are not well known in our country, and it is incumbent on education experts to study and introduce such standards to pave the way for their application in the field of e-learning. In order to achieve this desired efficiency in the production of electronic textbooks and to increase their efficiency and effectiveness, it was necessary to provide coherent principles derived from the various standards that existed in this field to guide designers for designing and producing electronic books. The results of this study showed that e-books are cost-effective for consumers in terms of cost and utility, which has led to their greater use, which is in line with the research of Naghshine and Fahimnia (2014). Also, in terms of the print situation and its comparison with electronic books, it showed that we have not yet achieved the technology of producing electronic books and we are only converting the same printed books into electronic books, and in this regard, it is not in line with the research of Roberts & Benson and Mills (2021) who showed that we should not move towards the technology of producing textbooks, and that is that it was not in the country. Also, our research showed that ease of access and enjoyment in any situation and time is one of the special advantages for the use of electronic books, which is in line with the research of Ebrahimi, and Faraj Pahlou (2022) that compared electronic and printed books. Also, this research showed that we

need a framework (roadmap) of the e-book curriculum in order to prepare e-books and we should be active in this field, while other researches such as Strauss and Guinea (2019) that worked on the benefits of producing e-books and Ebrahimi, and Faraj Pahlou (2022) are not in line because none of them emphasized on having a framework for e-books, and it is one of the achievements of this research. In the present study, the amount of use and budgets spent on the purchase of printed and electronic books have been used in order to evaluate the cost-effectiveness. The costs of providing, organizing, locating, and protecting also form a part of the budget of libraries for books, which in the present study, these costs are assumed to be the same for books, print, and electronic. Research in this field shows that the electronic format provides better effectiveness than the printed format of books. Results: Finally, it should be noted that due to the importance of electronic resources, many researchers have studied the economics and use of these resources. Most of the researches that have investigated the cost-effectiveness and use of printed and electronic book collections indicate a growing trend of using e-books and increasing their effectiveness.

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