Handouts, Textbooks or E-Resources: Saudi Female Students' Preferential Learning Style

Shadma Iffat Rahmatullah[1]

[1] King Khalid University, Abha, Kingdom of Saudi Arabia
https://orcid.org/0000-0002-9325-9921
Email: seft@kku.edu.sa

Abstract

This research aims to ascertain the perceptions of Saudi female undergraduates in terms of learning resources and identify the influencing factors that cause them to adopt their choice of learning techniques. For data analysis, the responses are gathered from the tertiary level female students through a questionnaire. Additionally, several faculty members voluntarily provided their perceptions regarding students' most favorable manner of learning. Though there has been a significant discrepancy in responses, a majority went for the provision of handouts or availability of digitally accessed materials with the reduced textual information for their effortless learning, regardless of attainment of course learning outcomes.

Keywords: Digital Books, Digital Resources, Handouts, Learning Resources, Learning Style, Saudi Undergraduates, Textbooks

Introduction

Along with the persistent educational progress, the learning aptitude of students is also on constant transformation. They seem to have a propensity to adopt the most convenient learning techniques available. Utilizing multiple resources in the teaching-learning process may motivate students, develop their creativity, and promote comprehension skills. Furthermore, it may develop their logical thinking and reasoning skills apart from strengthening communication and interaction between students and teachers.

As per the recent paradigm shift from the traditional teacher-centered approach to student-centered learning, Heider *et al*. (2009) talk about the novel transformation in the learning style of students. They testified that a growing number of instructors and educators are in an endeavor to relinquish the traditional approaches which are more restricted forms of teaching to supersede the constructive way of learning. Consequently, students are likely to prefer the learning mechanism according to their interests and suitability. Their remarkable inclination towards the preference of e-books and other educational e-resources rather than printed textbooks may be related to its surging cost (Vernon, 2006) and its

unavailability in the library or nearby bookstores. Among various electronic resources, built-in dictionaries appear to be the demand of the day. These dictionaries provide the learners with many advanced features, namely the literal meaning of words, examples with illustrations, synonyms, antonyms, and the audio pronunciation of the words, in addition to the videos and animations. Besides digital dictionaries, the attribution of e-textbooks to the students' learning process is substantially influential (Wiese & Plessis, 2015; Abuloum *et al.,* 2019).

Dealing with the students' academic requirements, Ali & King (2015) asserted that the institution's library ought to improve the provision of services and need to contemplate the availability and appropriate utilization of technology for users. To ensure the efficacious application of these technologies the students require adequate training. Alshahrani *et al*. (2017) declared that students carry several justifications for the refinement of their self-confidence and self-reliance in utilizing web-based resources. Their self-reliance may not be associated with their self-confidence since; they overwhelmingly depend on their teachers' instructions as they presume that they are leaders and have the right to make the ultimate decision in the classroom. It is speculated that many students demonstrate their admiration for specific lecturers. Their favoritism reflects their biased nature towards their teachers regardless of their subject proficiency and teaching efficiency (Alshahrani *et al*., 2017). Their learning process and their academic achievements too display the impact of their relationship. They added that teachers usually provide extensive handouts to students to assist them in understanding the concept of the specific topic clearly. These handouts may hamper the development of their critical skills specifically in the cognitive domain. In several such instances, these well-constructed handouts compel them to overlook the prescribed or recommended textbooks, though it may act as a great impediment to their long-term achievement.

The current venture strived to probe into the following research questions (1) what are the Saudi female college students' preferences for learning resources? (2) what are the persuading factors behind their choice of those learning resources? and (3) what is the impact of students' specific learning styles on their academic achievement?

Literature Review

The available studies can determine that there is the least correlation, or in many cases, no correlation between the learning style of students and academic achievement (Almigbal, 2015). However, the utilization of varied resources for the study materials results in higher scoring for students. At the same time, both the subject teachers and the institution take pains to enhance students' academic performance to achieve the targeted learning outcomes.

Students' Preferred Learning Style

Students always prefer convenient and effortless learning. Considering the students' needs and preferences, textbooks are usually provided in combination with other web-based reference materials or self-created materials, to fulfill the requirements of learning goals. In certain cases, contradictions in the learning style of students and the instruction method are attributed to their failure. In that event, the teachers are to be blamed for students' learning achievements. On the flip side, students "attribute their success to an external factor outside of their control which may lead students to anticipate failure on future tasks that involve information presented in a way that is contradictory to their learning style" (Wininger *et al*., 2019, p. 227). This shows students' perception regarding the cause of their *success* and *failure* and their *learning aptitude*. In this context, Neil Fleming's VARK model of learning styles (expanded as Visual, Aural, Read/Write, and Kinesthetic sensory modalities) is discussed in various research and assigned to the students' comprehension of the teaching content (Wininger *et al*., 2019; Almigbal, 2015; Shah *et al*., 2013; Kišiček *et al*., 2012). The multimodal agency of information for academic learning is best suitable when it matches with the requirements of students' cognitive skills. Being concerned with the learning style of students, Wininger *et al*. (2019) affirmed that "capturing and maintaining student attention is crucial to students' abilities to perceive and encode information" (p. 227). Predominantly, in a teacher-centered learning environment, the traditional way of giving lectures usually does not contemplate students' priority. However, understanding students' preferred learning styles facilitates the instructors to design the lecture content and their teaching techniques conforming to enhance the students' cognitive and behaviorist learning (Shah, *et al*., 2013).

Textbooks as Learning Tool

Unquestionably, the use of textbooks in the traditional or e-learning environment ensures the extension of knowledge, focusing on diverse learning activities. Without other supportive resources, the textbook is a landmark for all learning activities. Knight (2015) observed that despite the preoccupation of students with technology and digital media, the necessity for authentic and reliable information is still desirable. A textbook may facilitate students with several activities like reviewing the text and comprehending its basic concepts. For example, a medical textbook generally illustrates the significant terms with figures and diagrams extensively, with additional details of diagnosis and treatment. From another point of view, an efficient textbook is packed with a logical sequence of topics with a clear explanation that may not give space for the provision of handouts to supersede the textbooks. According to Knight (2015), a textbook has to be "flexible enough to synthesize knowledge and be used as only one element of quality instruction" (p. 3). He briefed a report on the use of textbooks in Higher education institutions in Australia stating

that the prescribed textbooks in nearly all subjects of study such as Science, Mathematics, Business, and Education are considered significant for effective learning (Horsley, Knight, & Huntly, 2010, as cited in Knight, 2015).

Apart from being relevant and updated, the textbooks with colored images attract students and motivate them to learn more (Wolfe, 2005). Studying with textbooks may also help students to reread the content when a part of it gets out of mind with ease of availability. In a recent study on medical students, Jameel, *et al*. (2019) found that e-textbooks, web pages, and other various medical websites are more appealing to female students in comparison to male students. Students in the medical field using multiple resources are more likely to achieve higher success in contradictory to those depending only on either textbooks or handouts. They found several students with animosity towards reading textbooks as they are incapable of comprehending textbook language. Sun *et al*. (2012) endeavored to assess the students' utilization of e-textbooks to examine their understanding concerning its usefulness. Their study result affirmed the effectiveness of using e-textbooks as perceived by students. They regarded digital books as more facilitating and more engaging for students when provided with appropriate content. They further acknowledged that students prefer reading digital books to printed textbooks because they find it helpful in doing exercises and achieving good grades. The study of Medley-Rath (2018) tells another account that students are in favor of printed textbooks in preference to various digital resources. Meanwhile, the increase in the cost of printed or digital textbooks has become a drawback in its affordability. Considering the circumstances, usually, the institutions allow the preparation of self-compiled materials or well-constructed handouts to be provided to students before the lectures.

Woody *et al*. (2010) give their perception regarding e-books that tell a decreasing number of students' priority for e-books notwithstanding the increasing amount of interaction with technology. It can be inferred from the study of McGowan *et al*. (2019) that a large number of students who preferred printed textbooks found it more convenient to study. They would prefer a textbook that contains the predominant existing *theory* and its *application,* while an electronic textbook has more possibility of transferring information and is more affordable considering the expense of printed textbooks. Moreover, Gurung & Landrum (2012) claimed that sometimes the linguistic difficulties in textbooks make students unable to comprehend the contents. They further asserted that despite students' preferences for textbooks, they find a slight variation in their academic performance while using other reference books.

Relying solely on textbooks, for reading or analytical study in the absence of any supportive learning materials may not produce fruitful results. Although, with the collaborative effort made by teachers as well as students in a desirable framework, it may be advantageous in using the textbooks only. This is because it works well when an efficient teacher presents the textbook information with effective teaching techniques

skillfully. Students perceived that the textbooks are packed with various productive activities which are very stimulating and that a textbook is a learning tool that can encourage students to have meaningful communication and creative responses (Mohammadi & Abdi, 2014). Textbooks provide theoretical knowledge on specific subjects. In some instances, students are found to be reluctant to read textbooks that, they reckon, are full of additional information. When dissatisfied with the information available in textbooks that do not answer their study questions, students usually turn to other electronic resources or teacher's handouts (Donelan, 2001).

Handouts Accessibility

An inconsiderable number of faculty do not give their consent on the provision of handouts to students and even does not support the notion that these PowerPoint slides alongside multiple media can motivate students and enhance the learning environment (Brazeau, 2006). In several instances, students do not find themselves as far skillful as to add their intellectual interpretation to the reduced amount of information presented on the notes provided by the teachers (Avval, *et al*., 2013). Therefore, it can be asserted that for the goal-oriented learning of students in higher education, the strategy of supplying lecture handouts as sufficient information, specifically for test preparations, is not an intellectual idea. Talking about the utilization of handouts, Donelan (2001) stated that the text segregated into multiple small sections with headings and subheadings is way more stimulating and make it "much easier for students to use the handout for reference because they can find topics at a glance" (p.47). Occasionally, handouts are prepared as supplementary material to present a summary of specific chapters making them comprehensible to strengthen students' learning process. In many subjects, such as biological science, the key concepts are made clear with extra notes in pamphlet format to motivate students.

Notwithstanding the quite pessimistic results by many researchers in terms of the usefulness of handouts, Jakee (2011) appeared to be in favor of the *lecture handouts.* He claimed that well-organized handouts help students to comprehend the concept visually with the use of graphs, tables, or any formulae. In addition to this, he stated that these handouts "produce highly structured outlines for class meetings, which, incidentally, conform to one of the principal characteristics of active learning" (p.106). Marsh & Sink (2010) are of the opinion that handouts given to students before the lecture may help students to proceed with learning and termed it as "the hypothesis of Efficient Encoding" (p. 692).

On the application of handouts, Nazrul Islam, *et al*. (2005) claimed that there are numerous published lecture handouts made available for students by institutions and instructors. These handouts are also utilized as "instructional tools" (p. 27) by subject

teachers. There have been several considerations for students' preferences for notetaking or handouts. One of them may be related to the difficulty in reading textbooks, as reading a textbook, and analyzing the contents of the books are time-taking laborious tasks (Sanagoo *et al*., 2013). Another reason might be students' low level of language proficiency that prompts them to go for the easier mode of learning materials in the form of either borrowed classroom notes from a peer or teachers' lecture handouts. Before the commencement of classroom lectures, the provision of handouts to students has its advantages also (Wongkietkachorn *et al*., 2014). It helps them to concentrate on the content of the lecture instead of copying down the words from the presentation slides. However, a leading disadvantage of using handouts during a lecture is overburdening the subject instructors to prepare these handouts in advance. In many cases, providing handouts before the classroom may hamper the note-taking ability and dissuade them from a further critical study from the textbooks (Talebinezhad & Matou, 2012).

A Panorama of E-resources

Digital resources are to promote the ease of accessibility of study materials for students as well as for faculty members in delivering lectures. The e-resources consist of electronic materials such as e-books, e-journals, electronic databases, streaming videos, and websites, etc., and can be accessed electronically. In higher education, the students conventionally are required to use the recommended reference books besides the prescribed textbooks for their academic study. Irrespective of the institution's recommendations, students usually prefer handouts as a supplementary tool in addition to the textbooks (Gupta, *et al*., 2004). The students preferably reach for the electronic resources for the completion of their assignments without realizing their authenticity (Dupuis, 1997). However, in several cases, students are usually inclined to read the study materials from the digitally available books rather than buying printed textbooks. The reason may lead to the high cost of printed books or the ease of accessibility of digital books. On the other hand, many research give contradictory results. Not only the printed textbooks are more readily available and have the possibility of transferring, but it is also easier for students to highlight the texts and read comprehensively (Abuloum, *et al*., 2019; Rockinson-Szapkiw, et. al., 2013). Contrarily, the students who preferred the e-textbook are more liable to "employ self-regulated learning strategies while reading their text than those reading the traditional text" (Rockinson-Szapkiw, et. al., 2013, p.186). Due to a lack of expertise in searching for reference books to write assignments, students prefer online resources instead of going to the campus library for traditional resources. Dupuis (1997) rightly concludes his study on *Information literacy* states that "the quantity, quality, and diversity of sources, access methods, delivery methods, and formats create a potentially disorienting environment for new users" (p.106). The choice of learning resources reflects the self-

efficacy and the positive attitudes of students towards knowledge acquisition.

Loaded with a huge amount of information, several commercial websites cannot be corroborated and verified as genuine. Though reading an e-journal for a research purpose may be advantageous for University students. Liiber & Roosaare (2005), in their joint study on the role of electronic textbooks, discussed that *ready-to-use* study materials downloaded from various websites are not adequate for all categories of students and that these *web-based* teaching or learning aids are not always reliable and user-friendly. They further justified the use of additional information that may give "profound knowledge" to students when used for more clarification after studying a topic (p.109).

The expeditious transformation of students' preference for learning resources, particularly, from printed textbooks to e-textbook, e-books, e-journals, or other e-sources, requires critical reading skills and analytical skills. It is significant to analyze the credibility and accuracy of the information before using them as study material. The selection of a digital textbook alone is not sufficient to accomplish goal-oriented learning. To achieve better learning outcomes, students are required to exert themselves alongside utilizing e-textbooks for their learning material. It may not assist in improving the learning outcomes of students unless they make the extra effort in the learning process (Sun *et al*., 2012). However, Öngöz & Mollamehmetoğlu (2017) confirmed that there is an inconsiderate shift from printed books to electronic books. Digital books supply various advantageous features in which the afore-mentioned researchers believe, "many contemporary technologies can be integrated such as augmented reality and artificial intelligence" (p. 2). Adding to that, they asserted that students loved the navigation tools, especially, tools to zoom in and out the text when required. They preferred e-materials because of their still and moving images or three-dimensional visualizations.

Methodology
Setting and Participants

The sample of the study is Saudi female undergraduates (n=115) from King Khalid University, situated in the Asir region of KSA. The participants belonged to various departments (English Language and Translation, Computer Science, Arabic, Public Health, and Nursing). Their mean age is 22 ranged between 19-26. Their English language proficiency is at an advanced level as they are in their third and fourth year of graduation program.

The second group of participants is female faculty members (n=15) who were formally interrogated with open-ended questions to communicate their reflection on students' preferred learning techniques used in and outside of the classroom environment. These faculty members belong to various areas of study: (1) English Language and Translation (ELT), (2) computer Science (CS), (3) Islamic Studies, and (4) Public Health.

These fifteen in-service teachers are well trained and qualified with master's degrees, teaching female college students in Asir region of KSA.

Method and Procedure

The current study followed a mixed-methods approach to bring out the result from students as well as the faculty members. To obtain quantitative data, two sets of questionnaires were employed electronically on female undergraduates. The questionnaires were based on (1) students' preference for learning resources, and (2) the reasons for their choice of those learning resources. In addition, the faculty members were interviewed with semi-structured questions. The qualitative data is presented in the discussion section to provide a clear understanding of the context. These faculty participants also disclosed their observational findings that were drawn from their teaching process, including their perception regarding students' choice of learning resources in their specialized subjects and their consequences on the achievement of learning goals. Their responses were recorded in scripted form and analyzed by singling out the concerned data.

Findings

The findings of the study in the following tables display the two distinct results of the questionnaires. Table-1 describes the students' preferred modes of learning, whereas Table-2 addresses the rationales behind their preferred modes of learning resources. The third research question is answered in the discussion section which explains the impact of students' specific learning styles on their academic achievement. It also discusses the students' attitude towards the contemporary teaching methods and their implications.

As predicted, the data in table-1 demonstrate the highest number of respondents inclined towards the provision of handouts, either as the only study material, as a supplement, or for referential study. The data for preferring textbooks and e-resources clearly explains that students use handouts with other resources as supplementary material.

Table 1: Students' preference for learning resources

		Handouts	Textbooks	E-resources	No. of participants
Departments	*ELT*	59%	20%	21%	35
	CS	60%	20%	20%	29
	Public Health	55%	26%	19%	21
	Arabic language	45%	40%	15%	19
	Nursing	44%	26%	30%	11

Table-2 displays the factors that affect students' preference for specific learning style. The total number of respondents of the questionnaire was 115. The questionnaire

contained 20 questions that were based on the six basic criteria that were the causing factors for students' choice of learning resources. The responses were in the form of five-point scale (Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree). After data analysis, the results are displayed as mean ($\bar{x}$), standard deviation (S) and variance (S^2) for all three preferences (Handouts, Textbooks, and E-resources).

Table-2: Reasons for students' preferences

	Handouts			Textbooks			E-resources			
	$\bar{x}$	S	S^2	$\bar{x}$	S	S^2	$\bar{x}$	S	S^2	F
Ease of availability	3.4	1.1913	1.419	2.2	.92239	.851	2.6	.9723	.946	115
Convenient to access	3.7	1.001	1.003	2.4	1.1012	1.213	3.7	.9979	.996	115
Easy to study	3.8	1.068	1.141	2.29	.97309	.947	2.7	.6694	.448	115
Help make the concept clear	3.5	1.2589	1.585	3.63	1.0116	1.023	2.9	.5038	.254	115
Help in good grades	4.1	.73922	.546	2.35	.85009	.723	2.8	.9084	.825	115
Timesaving	3.8	.96325	.928	2.4	.97317	.947	3.1	.7789	.605	115

The data in table-2 clarified that regardless of the subject they have studied, approximately, a large part of respondents favored the use of handouts as helpful to achieve their desired grades as well as being convenient to study. However, several students would like to go for the textbooks for the clarity of key concepts, whereas many of them found the e-resources (with a variety of sources) good for referential study. As the study is fundamentally based on identifying students' optimal choice of learning resources and the underlying causes for their choice, the data is not segregated according to the departments they belong to. Anyhow, a majority of them consider reading from textbooks is time-consuming as very few of them agreed that reading textbooks would save time. According to the findings, students appear to prefer handouts provided by the teachers as they believe these would help them score higher. Yet there are a number of students who opted textbooks as a source of study that they presumed are beneficial for the clarity of concept or to develop critical thinking skill of students.

Discussion

The empirical evidence collected from multidisciplinary faculty participants reveals that the students feel rejoiced and satisfied when provided with the handouts or

lecture notes for test preparations. Two participants disclosed that *the reduced amount of text makes them relaxed as well as unconcerned towards reading the entire textbook. It is noted that Saudi students tend to study with a minimum amount of course content.* Quite a few of the course instructors expressed their views that *a low number of students express their inclination for the printed textbook considering it as essential for learning the subject matter. There is a mild increase in the choice of e-textbooks superseding the printed textbooks. It might be a consequence of the unavailability of books in the college library or the high cost of books in bookstores.*

It is equitably affirmed that Saudi female students' tendency towards an in-depth study is very low. The ELT and CS instructors claimed that students are more inclined to handouts or lecture presentation slides provided to them solely for the preparation of their summative assessments. They accept them as a substitute for textbooks or prescribed reference books. The fundamental causes behind their antipathy towards reading textbooks could be its expanded theoretical information, difficulty in understanding the English language, inability to summarize the chapter, and beyond everything, a risk for losing grades.

The responses of instructors indicate that many students seem to be the least interested and inattentive to lectures in absence of handouts, similar to the study result of Wongkietkachorn *et al.* (2014). Moreover, the study revealed that students encounter difficulties in utilizing electronic resources despite their ease of availability. The justification for this indifference may be given as the non-coverage of relevant topics on specific subjects, more time-taking, and the minimum support by course instructors.

About 85% of the participants claimed that one of the consequential factors for deflecting students' conspicuous negligence towards reading textbooks and their inclination towards e-textbooks or other similar content available on websites is the ease of accessibility of e-resources (as expressed by Alshahrani *et al.*, 2017; Swain, 2016; Wiese & Plessis, 2014). They find it convenient as they can download the content effortlessly and read whenever and wherever they desire. The local unavailability of textbooks and the unaffordable cost of textbooks is another cause of concern for the students, teachers, and institutions as well.

It can be generalized that students strive for the handouts to be with them either before or after the lecture so that they can escape the effort of notetaking or copying the words from PowerPoint presentation slides, as evident in another research (Marsh & Sink, 2010). Six out of fifteen faculty participants teaching lower-level classes (Levels 1-4) observed that during the lectures students appear to be passive listeners without the learning materials in their hands. When the lectures are supported with PowerPoint presentations using visual graphs, interesting audios, or related videos, it may appear fascinating for students.

When asked about the achievement of learning outcomes with students' preferred

learning style, a majority of instructors disapproved of the correlation between them, as it requires critical and analytical study to attain the desired goals. They observed that *the learning outcomes are intended to enable students to develop critical thinking and evaluation skills that may not be achieved with the current scenario in the learning process.* Therefore to promote critical thinking skill of students, a thorough study of prescribed textbook is advocated (as expressed by Talebinezhad & Matou, 2012).

Seven out of fifteen participant faculty members reported that students feel the necessity of handouts merely to support the textbook content, as justified by other researchers (Nazrul Islam, *et al*. 2005; Gupta *et al*., 2004). Such handouts provide significant support to the traditional classroom lectures in several institutions. According to the responses provided by them, many students do not seem to have contended with the provision of handouts as a substitute for the textbook and find the textbooks efficient for study. On the other hand, they observed that in studying literature, English language, Computer science, and medical science courses, students confront difficulties in trying to grasp the content of the lecture because the medium of instruction in these courses is English. Another reason, they claimed, for students not being able to comprehend the lecture might be the subject teacher's varied style of teaching or the difficulty level of the course content. As a result, students expect their subject teachers to provide handouts before the lectures or before the advancing of examination for its preparation, instead of doing critical study from textbooks or reference books. In such circumstances, taking notes also during the lecture seems nearly impracticable. Consequently, the teacher's notes and lecture handouts are more preferable to reading the entire chapters from textbooks.

Based on the faculties' observation, students appear to be more likely to substitute printed books with digital books while looking for information for writing assignments or research papers. The apparent factor behind their preference is the immense collection of resources available on the World Wide Web. With the unavailability of textbooks or reference books in remote areas, the accessibility to electronic sources is a boon for them. Therefore, e-books are more convenient and favorable for students studying with distance learning mode, similar to the observation of Vernon (2006). It is uncertain whether such affordability of vast resources available electronically can be productive for students' learning. The answer lies in their attitudes and aptitude for using e-resources.

Conclusion

The outcome of this research substantiates the study reviews and researchers' speculations. It is manifested that students' inclination towards the provision of handouts before, during, or after the lecture is due to their quest for finding the easiest learning approach. However, it is difficult to establish the correlation between the students' choice of learning resources and the achievement of learning outcomes; yet the instructors'

perception regarding their experiences with students' learning techniques and their academic achievements demonstrate that the resources they select do affect their grades but do not assist in the attainment of their long-term learning goals. There is variation in the perception regarding the provision of handouts and students' taking notes of the lecture. Due to unavailability of original textbooks in the library or it's being overpriced in bookstores, students reluctant to buy the textbooks. Consequently, many students are compelled to either compile notes given by teachers or use photocopies of original books or web-downloaded materials.

Students seem to be contented with the content of the prescribed textbooks by the institution if it is related to cultural background, learning interest, and learning objectives of students. Therefore, it is recommended that in opting for a convenient and easiest learning style, students' academic achievement is also to be taken into account. Besides learning resources, a favorable and supportive learning environment must be generated for learners. For this, not only students' active role is required, but the teachers' energetic involvement is also prerequisite.

References

Abuloum, A., Farah, A., Kaskaloglu, E., & Yaakub, A. (2019). College students' usage of and preferences for print and electronic textbooks. *iJET* – 14(7), 80-97, https://doi.org/10.3991/ijet.v14i07.9871

Ali, S., & King, A. (2015). Study spaces and environments: Recognizing the needs of students in Africa, *Journal of Education and Practice*, 6(23), 99-107. Retrieved from https://www.iiste.org/Journals/index.php/JEP/article/view/25242

Alshahrani, S., Ahmed, E., & Ward, R. (2017). The influence of online resources on student–lecturer relationship in higher education: a comparison study. *Journal of Computer in Education*, 4(2), 87–106, http://doi.org/10.1007/s40692-017-0083-8

Avval, F. Z., Jarahi, L., Ghazvini, K., & Youssefi, M. (2013). Distribution of handouts in undergraduate class to create more effective educational environment. *International Journal of Education and Research,* 1(12), retrieved from https://pdfs.semanticscholar.org/a9ca/37668d9d163b278efa5c96cc3817af10de6c.pdf

Brazeau, G. A. (2006). Handouts in the classroom: Is note taking a lost skill? *American Journal of Pharmaceutical Education*, 70 (2), http://doi.org/10.5688/aj700238

Donelan, S. (2001). How to use textbooks, handouts, and visual aids, *Wilderness and Environmental Medicine,* 12(42), http://doi.org/10.1580/1080-6032(2001)012

Dupuis, E. A. (1997). The information literacy challenge: Addressing the changing needs of our students through our programs. *The Information Literacy Challenge, Internet Reference Services Quarterly*, 2(2-3), 93-111,

http://doi.org/10.1300/J136v02n02_11

Gupta, B., White, D. A., & Walmsley, A. D. (2004). The attitudes of undergraduate students and staff to the use of electronic learning, *British Dental Journal*, 196(8), 487-492. http://doi.org/10.1038/sj.bdj.4811179

Gurung, R., & Landrum, R. E. (2012). Comparing student perceptions of textbooks: Does liking influence learning? *International Journal of Teaching and Learning in Higher Education*, 24(2), 144-150, retrieved from https://files.eric.ed.gov/fulltext/EJ996261.pdf

Heider, K., Laverick, D., & Bennet, B. (2009). Digital textbooks: The next paradigm shift in higher education? *AACEJ,* 17(2), 103-112. Retrieved from https://www.learntechlib.org/primary/p/27054/

Horsley, M., Knight, B., & Huntly, H. (2010). The role of textbooks and other teaching and learning resources in higher education in Australia: Change and continuity in supporting learning, *IARTEM e-Journal,* 3(2), 43-61. Retrieved from https://ojs.bibsys.no/index.php/IARTEM/article/view/787

Jakee, K. (2011). Overhauling technical handouts for active student participation: A model for improving lecture efficiency and increasing attendance. *International Journal of Teaching and Learning in Higher Education*, 23(1), 98-108, http://www.isetl.org/ijtlhe/ ISSN 1812-9129

Jameel, T., Gazzaz, Z. J., Baig, M., Tashkandi, J. M., Alharenth, N. S., Butt, N. S., Shafique, A., & Iftikhar, R. (2019). Medical students' preferences towards learning resources and their study habits at King Abdulaziz University, Jeddah, Saudi Arabia, *BMC Research Notes,* 12(*30*), https://doi.org/10.1186/s13104-019-4052-3

Kišiček, S., Lauc, T., & Golubić, K. (2012). Students' learning preferences in a multimedia online course. *International Journal of Education and Information Technologies*, 6(4), 319-326, retrieved from https://www.naun.org/multimedia/NAUN/educationinformation/16-466.pdf

Knight, B. A. (2015). Teachers' use of textbooks in the digital age. *Cogent Education*, 2(1), 1-10, http://doi.org/10.1080/2331186X.2015.1015812

Marsh, E. J., & Sink, H. E. (2010). Access to handouts of presentation slides during lecture: Consequences for learning, *Applied Cognitive Psychology,* 2, 691–706, http://doi.org/10.1002/acp.1579

McGowan, M., Stephens, P. R., & West, C. (2009). Student perceptions of electronic textbooks, *Issues in Information Systems,* 10(2). 459-465. Retrieved from http://iacis.org/iis/2009/P2009_1299.pdf

Medley-Rath, S. (2018). Does the type of textbook matter? Results of a study of free electronic reading materials at a community college. *Community College Journal of Research and Practice*, 42(12), 908-918,

http://doi.org/10.1080/10668926.2017.1389316

Mohammadi, M., & Abdi, H. (2014). Textbook evaluation: A case study. *International Conference on Current Trends in ELT*, *Procedia - Social and Behavioral Sciences,* 98, 1148 – 1155, http://doi.org/10.1016/j.sbspro.2014.03.528

Nazrul Islam, M., Majumder, M. A., Ja'afar, R., & Rahman, S. (2005). Students' perceptions of 'technology-based' lecture handouts. *Malaysian Journal of Medical Sciences,* 12(1), 26-28, retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3349410/

Öngöz, S., & Mollamehmetoğlu, M. Z. (2017). Determination of secondary students' preferences regarding design features used in digital textbooks. *Digital Education Review* – 32, retrieved from http://greav.ub.edu/der/

Rockinson-Szapkiw, A. J., Wendt, J., & Lunde, R. (2013). Electronic versus print textbooks: the influence of textbook format on university students' self-regulated learning   strategies, motivation, and text anxiety. *American Journal of Distance Education*, 27(3), 179-188, http://doi.org/10.1080/08923647.2013.796230

Sanagoo, A., Jouybari, L., Ghana, S., Alha-Abadi, J. S., Rahimi, M., Sedghi, S., & Sharifnia, S. H. (2013). Students' attitude towards note-taking and reading pamphlets/handouts in courses. *Future of Medical Education Journal (FMEJ)*, 3(3), http://doi.org/10.22038/FMEJ.2013.1520

Shah, K., Ahmed, J., Shenoy, N., & Srikant, N. (2013). How different are students and their learning styles? *International Journal of Research in Medical Sciences*, 1(3), 212-215, http://doi.org/10.5455/2320-6012.ijrms20130808

Sun, J., Flores, J., & Tanguma, J. (2012). Empirical research: E-Textbooks and students' learning experiences. *Decision Sciences Journal of Innovative Education,* 10(1), 63-77, https://doi.org/10.1111/j.1540-4609.2011.00329.x

Swain, D. K. (2010). Students' Keenness on use of e-resources. *The Electronic Library,* 28(4), 580-591, http://doi.org/10.1108/02640471011065391

Talebinezhad, M. R., & Matou, Z. (2012). EFL reading comprehension textbooks at university level: A critical thinking perspective. *Theory and Practice in Language Studies,* 2 (8),   1746-1754, http://doi.org/10.4304/tpls.2.8.1746-1754

Vernon R. F. (2006). Teaching notes: Paper or pixels? an inquiry into how students adapt to online textbooks. *Journal of Social Work Education*, 42(2), 417-427, http://doi.org/10.5175/JSWE.2006.200404104

Wiese, M., & Plessis, G. (2014). The battle of the e-textbook: Libraries' role in facilitating student acceptance and use of e-textbooks. *SA Jnl Libs & Info Sci*, 80(2) http://sajlis.journals.ac.za http://doi.org/10.7553/80-2-1509

Wininger, S. R., Redifer, J. L., Norman, A. D., & Ryle, M. K. (2019). Prevalence of learning styles in educational psychology and introduction to education textbooks: A content analysis. *Psychology Learning & Teaching*, 18(3), 221–

243,   http://doi.org/10.1177/1475725719830301

Wolfe, K. (2005). Course materials—syllabus and textbooks. *Journal of Teaching in Travel& Tourism*, *4*(4), 55-60, http://doi.org/10.1300/J172v04n04_05

Woody, W. D., Daniel, D. B., & Baker, C. A. (2010). E-books or textbooks: Students prefer textbooks, *Computers & Education*. *55*, 945–948, http://doi.org/10.1016/j.compedu.2010.04.005