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# The attitudes of Jordanian English language and literature undergraduate students toward open-book exams

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**Introduction:** The paper aims to investigate the attitudes of English Language and Literature students toward implementing the open-book exam in literature courses.

**Methods:** The research applied a mixed-method approach. The researchers interviewed five undergraduate students enrolled in the American Literature course for the qualitative part. In contrast, the research includes the results of 62 questionnaires for the quantitative part. Moreover, a survey questionnaire was developed by the researchers to collect data concerning the participants' attitudes toward OBEs.

**Results:** The study found a positive attitude toward OBEs. Moreover, the study participants demonstrated that OBEs reduce stress levels that occur during exams in general. A statistical representation of the findings showed that the sample students have a positive attitude in relation to this unconventional assessment protocol.

**Discussion:** OBEs should be allowed more space in academic institutions since today's world does not depend on the amount of information a job applicant deposits in his memory. What matters is the person possesses enough high-order thinking abilities and skills like problem-solving.

## KEYWORDS

attitudes, open-book exams, literature course, Jordan, higher education

## Introduction

With so many innovations going on in the field of higher education these days, the change in assessment is taking place in order to make it efficient and more student-centered. The "Open Book Exams" is implemented nowadays to reduce students' anxiety as well as help them utilize their abilities and knowledge and have a positive attitude toward exams (Gujral and Gupta, 2015). According to the findings of a study conducted by Healy et al. (2019), most students find OBEs to be less stressful as compared to closed-book exams (CBEs). The researchers further stated that OBEs focus more on problem-solving skills rather than a recall of facts. Another study conducted by Amadi and Nwokenne (2017) states that OBEs can reinstate the real meaning of education for students and teachers. They

further add that if the nature of the question changes, the techniques for preparing students for the exams will also change, and as a result, teachers will focus on developing the mental skills of the students.

Furthermore, [Pravini et al. \(2019\)](#) seek to investigate the issue of administering closed-book exams to GCE Ordinary Level English Literature students. The main goal of the study is to demonstrate how instructors and students feel about introducing open-book exams for the GCE O/L English Literature test. The study interviewed teachers, and a questionnaire was distributed among students. The data collected demonstrated that the participants prefer using open-book examinations for English literature at the GCE Ordinary Level and emphasized that they should not measure students' memorization but rather their ability to analyze texts. The study also suggested that the government should take the required steps to develop legislation and testing procedures that address the demands of students and global trends. OBEs are gaining more ground at institutions that want to turn out students who wish to establish themselves in the market. This kind of assessment wins the battle and proves its merits after each time it is implemented. The key advantage of a well-prepared OBE is that it provides the students with better opportunities to apply their knowledge instead of parroting what they have memorized, and if memorization occurs, then it is a meaningful one ([Swart and Sutherland, 2014](#); [Ferrell and Maheu, 2019](#)).

Application of any newly acquired knowledge equips students with the problem-solving skills required for any job ([Dale et al., 2009](#)). Consequently, this protocol enables students to handle problems they are likely to face in real-life situations ([Green et al., 2016](#)). Implementing OBEs lowers the degree of tension and anxiety that accompanies any exams. Students reported that they usually experience minor stress levels while preparing themselves for exams as they only need to have a conceptual understanding rather than memorizing it in a meaningless manner ([Patil et al., 2021](#)). In addition, [Abdulmajeed Mamhusseini \(2020\)](#) evaluates the attitudes of faculty and students toward open-book examinations as a teaching strategy in nursing education. Data was collected through questionnaire distribution among nursing students and teaching staff. It confirmed that the usage of open-book exams as a teaching approach in nursing education programs has a significant impact on the improvement of the nursing curriculum. The study found that OBEs can reduce students' anxiety during exams, which can help to reduce their exam-related anxiety.

Implementing OBEs enables students to improve their time management, looking up information, and note-taking skills. Many studies underline the fact that in the case of closed-book exams (CBEs), students show an inclination toward studying a few days before the exams because they know that they only need to memorize ([Green et al., 2016](#)). Adapting OBEs becomes more reasonable as higher education institutions are incorporating and developing different forms of online courses and learning management systems (LMS) into their courses,

thus encouraging students to access different sources of knowledge ([Green et al., 2016](#); [Ferrell and Maheu, 2019](#)). A study conducted by [Ashri and Sahoo \(2021\)](#) about OBEs and higher education during COVID-19 evaluated the strengths, weaknesses, challenges, and opportunities of carrying online OBE by discussing the extensive available literature. The study also assessed the students' performance in OBE and CBE. Researchers found that the students scored more in OBE than in CBE. Witnessing these drastic changes in the educational arena and its twinning with technology will not allow these efforts to prosper unless this mixture is deeply stirred with OBEs. The OBE is gaining more ground today among schools, universities, colleges, and training centers that are trying to elevate their levels and outcomes to meet the accreditation criteria designed by international accreditation organizations. Another study conducted during COVID-19 aims to compare the effects of in-class, closed-book exams (ICE) versus take-home, open-book exams (OBE) on academic achievement and student well-being. THE includes two social science courses; a bachelor's and another master's. Students from both courses conducted an ICE in the first cohort (2019), while those in the second cohort (2020) completed a THE. Students were required to complete surveys on their academic achievement and general well-being during the course, as well as a test to gauge their memory of the course topics after the course was through. The study result showed that the academic performance and knowledge retention for either the bachelor's or master's students did not significantly differ between the ICE and THE cohorts. Compared to their counterparts who finished the ICE a year earlier, bachelor students who completed a THE in 2020 reported considerably poorer well-being. Another study that seeks to analyze administrative data from a Norwegian Business School observed the impact of moving from traditional school exams to home-based exams in 2020 due to COVID-19. According to the findings, there is a less strong correlation between high school performance and success in business administration courses. Additionally, home examinations could be unfair to older pupils ([Opstad and Pettersen, 2022](#)).

A number of studies have been conducted showing how OBE is helping in developing enduring learning, but these studies are subjected to science subjects only, such as Chemistry, Physics, Engineering, Physics, and Medicine. Therefore, this paper is an attempt to apply this protocol to literature courses as an effort to draw more research attention to the importance of utilizing this protocol in the area of humanities.

## Problem statement

Faculty members, trainers, and teachers can use various types of exams to assess students. For instance, they may use CBEs, oral presentations, group projects, and online exams. OBEs continue to be the least used tool, though they are known to be the best way to assess students' ability to handle real-life situations

(Green et al., 2016). Some students may think that an OBE is too easy, while others think that they do not need to study hard for it. However, this is not true! In fact, the open book exam may be very hard and require much preparation. It may require searching much information since it aims at assessing students' capacity to think, apply and use information.

This type of exam requires learners to employ critical thinking skills and support arguments by providing strong evidence and mentioning facts and opinions of the concerned experts (Roubidoux, 2008). In order for students to prepare themselves for the open book exam, they need to understand the information and know how to apply it rather than memorize it. Using the open book exam shall make students check the accuracy of their notes and work hard to develop their note-taking skills. In their attempts to pass an OBE, students will do their best to understand the information rather than deposit it in their memory, which will improve their research skills (Roubidoux, 2008). The present study aimed to explore the attitude of the Department of English Language and Literature students toward using OBE in literature courses at Al-Balqa Applied University.

## Study objective

The objective of this paper is to identify the attitude of the Department of English Language and Literature students at Al-Balqa Applied University toward implementing the OBEs in literature courses.

## Research questions

The present study aimed to answer the following questions:

*RQ1:* What is the attitude of the Department of English Language and Literature students toward implementing the OBEs in literature courses?

*RQ2:* Does the OBE reduce the anxiety and stress levels associated with exams?

*RQ3:* Does the OBE improve the Department of English Language and Literature students' understanding of literature courses?

## Secondary objectives

- Do OBEs reduce the anxiety and stress?
- Do OBEs develop problem-solving skills and retention of knowledge?
- Do OBEs enhance students' ability of note-making?
- Do OBEs increase students' learning and enrich engagement in the language and literature courses?

## Study significance

The significance of this study stems from the points that it is supposed to:

1. Enrich the literature that sheds light on the attitude of the students of the Department of English Language and Literature toward the use of OBEs for assessment in literature courses since most studies available deal with comparisons, not with attitudes.
2. Fill the gap in the literature that addresses the use of OBEs in literature courses in Jordan.
3. Benefit the faculty members in the English Language and Literature departments by providing them with knowledge about the students' attitudes toward using OBEs for assessment in literature courses.
4. Enrich the knowledge of the decision makers at the Jordanian Ministry of Higher Education so that new effective policies for improving the quality of higher education in Jordan might be employed.

## Literature review

### Theoretical work

It is agreed upon by Feller (1994), Theophilides and Dionysiou (1996), and Eilertsen and Valdermo (2000) that the OBE creates a simulated environment for students. It prepares them to face real-life situations, reduces anxiety and stress levels while taking the exam, and enhances their capacity to retain information. Utilizing the OBE as an assessment tool improves students' high-order thinking skills, such as reasoning and problem-solving. It can also improve their note-taking and active listening skills. As it boosts the engagement of students in the teaching-learning process, an OBE improves their understanding of information rather than memorizing it in a meaningless way. Few educators might consider open-book exams as less conventional, but these exams have gained popularity in the educational spectrum, which includes primary, secondary, and higher education (Eilertsen and Valdermo, 2000).

Through OBEs, faculty members can ensure that students enjoy academic integrity (Olt, 2002). This type of exam is suitable for assessing students' capacity to find the right information at the required time. This strategy is suitable for assessing their ability to apply information and theories effectively, as well as their problem-solving skills. Although it is believed that students prefer taking OBEs more than CBEs, educational institutes need more time to prepare both examiners and examinees for this kind of assessment (Heijne-Penninga et al., 2010).

The one who wants to take the OBE must read the material thoroughly before coming to the exam. That should be done to ensure that students are capable of making use of the information within the allowed time duration. Therefore, using the open book

exam for assessment shall improve students' time management skills. It shall also enable them to provide their answers in an accurate and precise manner (Mekala, 2012). Through this type of examination, deep learning can be achieved, and more authentic approaches to assessment can be adopted (Teodorczuk et al., 2018).

OBEs allow students to have access to selective sources such as their notes, lecturer's handouts, or textbooks to answer the exam questions. The material to which students refer to prepare for exams mostly includes a prescribed textbook which means that they are forced to have a copy of their own instead of borrowing it from their peers. Moreover, they are also encouraged to take notes on their own copies. OBEs are not as simple and easy as students may think; they can be more difficult than CBEs because it requires a different study approach. Teachers can play an active role by devising techniques such as giving them quizzes to change their study habits (Swart and Hertzog, 2018).

## Empirical work

In their "Open-Book Versus Closed-Book Tests in University Classes: A Field Experiment," Rummer et al. (2019) used a sample of university students registered in two "parallel" Cognitive Psychology courses. The first group of students was notified since the early beginnings of the course that they were going to set for an open book surprise test and final exam. The second group was to set for traditional closed-book tests and exams. The OBE's group was given several practice tests before the arrival of the eighth week, when a surprise test was held for both groups. The closed-book group achieved better results on that test, and their achievement was also better in the final exam. Al-Kilidar et al. (2018) conducted a study involving or engaging post-graduate students majoring in engineering management programs in New Zealand to investigate the change in the participants' attitudes toward OBEs. The study consisted of a pre and post-OBE survey. Both surveys were followed by enough space for the students to write down their commentaries and express their opinions.

Concerning the participants' general preferences, it was concluded from the pre-open book exam survey that nearly half of the participants (47%) showed a positive reaction toward the introduction of OBEs, while only 19% were not supporters of that kind of change. The results obtained from the post-open book exam survey demonstrated a big shift in the students' preferences. Only 18% of the surveyed students continued to support the OBE strategy, and 27% became supporters of CBE. However, after actually sitting for the OBE, students' preference for OBE was reduced to 18%, while their preference for CBE increased to 27%.

After the GCSE reforms applied to the English Literature exams that took place in 2015, which entailed the implementation of the OBE instead of the CBE, Marsh (2017) investigated the opinions of the poetry course. Through the interviews, teachers expressed how restrictive the CBEs had been to the chances of creativity in that course. Theophilides and Koutselini (2000)

carried out a comparison between the open-book and the closed-book exams in terms of the study behavior of students. The study sample consisted of 181 students. The study highlighted that the participants who prepared for the CBEs postponed their study till the end of the semester and directed them to focus more on memorizing. It was found that the group that prepared for the OBE reviewed various information and linked the pieces of information together, increasing their engagement in the teaching-learning process. The study also highlighted that using the open book exam for assessment enabled them to apply knowledge creatively and increased their understanding of the material.

Gujral and Gupta (2015) studied the attitudes of teachers and school students toward OBEs in India. A survey was completed by a random sample of 50 teachers and 100 students from Central Board for Secondary Education (CBSE) schools in Raipur, India. The final sample consisted of 50 teachers and 100 students. It was found that students showed better scores in OBEs. The study proved that both students and teachers believed that an OBE enabled students to engage in discussions logically and rationally. Another study by Brightwell et al. (2004) established a comparison between the use of open-book and closed-book exams. The sample consisted of 196 students. First, the members of the sample took an online exam that consisted of (50) multiple-choice items without having access to any information resources. Then the researchers provided the sample students with books and worksheets and re-conducted the same online exam. It was found that there is not any statistically significant difference between the student's scores in the first exam and the second one.

In a comparison between the use of OBEs and CBEs, Durning et al. (2016) found that students prefer OBEs and proved that they need more time to finish the OBE than in the case of CBE. It also found that students prepare harder for the CBE than the OBE. Ramamurthy et al. (2016) conducted a comparison between the use of OBEs and the CBEs. They selected a sample of university students majoring in Pharmacy. The findings proved that OBE is associated with anxiety levels that are lower than those associated with CBEs. Students reported that they preferred taking the OBE more than the traditional exams. The results also demonstrated that the OBE required employing problem-solving skills more than in the case of the CBE. The OBE was reported to require less memorization than the widely used OBE. The OBE enabled students to show higher academic achievement than its counterpart. Employing the OBE for assessments was found to enhance the learning process and enrich the students' practical and theoretical knowledge. Minder et al. (2018) sampled 232 s-year university students majoring in Medicine to evaluate the use of the open-book technique as a mode of online formative assessment from two angles: in-depth-knowledge gained during the course and the level of course preparation.

The participants were randomly split into a control group setting for a CBE and an experimental group setting for an OBE. The study's results demonstrated the OBE as a form of

Formative Assessment that positively affected the examined items. The experimental group scored higher points, especially when it came to the course's in-depth knowledge gain. A study conducted by Sam et al. (2020) chose to use two final-year applied knowledge tests that had been planned to be used in the CBEs as remote access OBEs. The participants of the study were given access to the examinations from anywhere in the world by using any gadget or device and having access to the internet *via* an online forum. The examination papers were made by United Kingdom Medical Schools Council.

The purpose of the questions in the exam paper was to check the student's ability to link clinical reasoning and decision-making skills. This assessment aimed at assessing their synthesis of knowledge rather than recalling facts. The study then conducted a psychometric analysis of the OBEs and compared it with those of CBEs for the last 3 years. The duration of the OBE was the same as the previous CBE, but only the answers submitted *via* the online platform during the approved time of the OBEs were accepted. The arrangement of the items in the OBEs was randomized for all the participants to alleviate the risk of conferral.

## Methodology

### Study approach, design, and sample

The study undertook a mixed approach, qualitative and quantitative. For the quantitative study, a questionnaire was deployed by the researcher to obtain the necessary data concerning the participants' attitudes toward OBEs (Appendix 1). The questionnaire was developed based on the studies of Feller (1994), Eilertsen and Valdermo (2000), Roediger III and Karpicke (2006), Heijne-Penninga et al. (2010), Gharib et al. (2012), Teodorczuk et al. (2018), Francis (1982), Chan and Mui (2004), and Heijne-Penninga et al. (2011). The questionnaire consisted of 14 statements based on the Five-Point Likert scale. The recommended sample size was 55 by Raosoft, with a 95% confidence level and a 5% margin of error. However, the researcher distributed the questionnaire to the 64 students who were registered in the American Literature course and received 62 complete survey forms. Whereas for the qualitative part, the researcher interviewed five undergraduate students who had been enrolled in their last semester registered in the aforementioned course (Appendix 2). The participants were recruited through convenient sampling and gave their consent for the interview. Participants were recruited based on their convenience as those who were willing to participate were included in the study.

The results of the interview were divided into themes.

### Study procedure

Since the whole idea of preparing for and taking OBEs is blurred in the mind of students, the researcher found it necessary

to make it clear among the participants of this study. At the very beginning of the American Literature course, a special introduction was given to the students covering the OBEs from different aspects such as class attendance, note-taking, and exam preparation. The students were also encouraged to access the internet to read more about this technique. Four weeks later, and in an attempt to make the OBE concept more concrete in their minds and to lower their anxiety, a mock exam was given to the participants. The researcher studied the exam paper thoroughly and provided the examinees with detailed feedback. In the eighth week, the participants were given an open-book quiz, and this time the papers were peer-corrected. The aim of this step was to maximize the students' awareness of the OBEs assessment and marking scheme before taking the mid and final exams. At the end of the final exam, the questionnaire forms were distributed to the registered students who formed the members of the sample. All of the forms were retrieved. However, two forms were excluded because they were incomplete. Thus, the final sample consisted of 62 undergraduates.

## Statistical analysis

For the data analysis, the study used the partial least squares structural equation modeling (PLS-SEM) analysis with SmartPLS v.3.2.9 software. The variance was calculated among the three groups that were stress and anxiety relief (1, 2), problem-solving and learning (3–9), and convenience (10–15). The variance has been calculated against the factor loadings of each group to explain the difference among the factors. The value of the variance shows the frequency or correlation between the variables (Rather et al., 2022). The study addressed the normality of data through assessing its skewness and kurtosis. Generally, the threshold of skewness ranges from  $-1$  to  $1$  whereas kurtosis's threshold ranges from  $-2$  to  $2$  (Min et al., 2016). Table 1 exhibits the obtained values of the normality tests. The obtained values of skewness and kurtosis came out to be from  $-0.596$  to  $1.846$ .

## Validity and reliability

The researcher passed the preliminary version of the questionnaire to four assistant professors in educational sciences at two official universities of Jordan (Al-Balqa Applied University and Hashemite University). They were asked to assess the instrument in terms of accuracy, language, relevancy, and clarity. They suggested that the instrument is reliable and capable of providing accurate results. One professor corrected some language mistakes. Based on the experts' recommendations, all the statements remained as it is. Then, the Cronbach alpha coefficient was calculated, which proved to be more than  $0.7$  (Bujang et al., 2018). However, each construct of the questionnaire had more than  $0.80$  proving that the instrument is highly reliable and capable of meeting the goals of the study (Table 2).

TABLE 1 The results of factor analysis.

No.	Factors	Factors loading	Variance %	$\alpha$	S	K
<b>Stress and anxiety relief</b>						
1	The open book exam reduces the anxiety and stress levels associated with exams	0.877	54.634	0.841	0.131	0.324
2	Studying for the open book exam makes me feel more motivated than studying for the closed book exam	0.808			-0.136	-0.889
<b>Problem solving and learning</b>						
3	The open book exam improves my problem-solving skills	0.873	52.784	0.936	-0.305	-0.857
4	The open book exam improves my note-taking skills in literature courses	0.854			-0.032	-0.847
5	The open book exam boosts my engagement in the teaching-learning process in language and literature courses	0.811			0.158	-0.146
6	The open book exam improved my understanding of the information related to literature	0.894			-0.254	1.846
7	The open book exam improves my retention of the information related to literature	0.636			-0.398	-0.532
8	The open book exam makes me prepare harder for the exam in literature courses.	0.689			-0.153	-0.392
9	The open book exam enables me to learn new information during the exam	0.895			-0.234	-0.022
<b>Convenience</b>						
10	The open book exam is easier than the closed book exam in English literature courses	0.818	52.345	0.825	0.894	-0.154
11	The open book exam enables the faculty members teaching literature courses to cover the whole curriculum during the semester.	0.841			-0.824	-0.062
12	I prefer taking the open book exam more than taking the closed book exam in English literature courses	0.891			0.767	-0.621
13	I believe that open book exam fosters deeper learning in literature courses	0.852			-0.596	-0.674
14	The open book exam enables me to get higher scores in literature courses	0.897			-0.154	-0.023
15	The open book exam makes me prepare harder for the exam in literature courses.	0.898			-0.168	-0.532

## Results

### Quantitative approach

This study has used factor analysis to evaluate relationships among variables. The variables under the Stress and Anxiety Relief had factor loadings of 0.877 and 0.808. At the same time, the variables under Problem Solving and Learning were 0.873 and 0.854, 0.811, 0.894, 0.636, 0.895, 0.689, and 0.895. Moreover, the factor loadings under convenience were 0.818, 0.841, 0.891, 0.852, 0.897, and 0.898. The total variance of Stress and Anxiety Relief was 54.634. In comparison, the variance of Problem Solving and Learning and convenience came out to 52.784 and 52.345, which show differences between the three groups (Table 1). The higher value of the variance shows the frequency or correlation between the variables (Rather et al., 2022). According to Rather et al. (2022), the values of factor loading should be higher than 0.5. However, these values are considered more significant if they are 0.7 or higher.

#### RQ1: What is the attitude of students in the English Language and Literature Department at Al-Balqa Applied University toward the OBEs?

To answer this question, descriptive statistics were used. In Table 3, the descriptive statistics include meaning (M), standard deviation (S.D.), and the level. The average score of the English Language and Literature Department students' attitude toward

OBEs was ( $M = 3.82$ ), and a standard deviation (of S.D. = 0.53). The statements like the open book exam boots my engagement in the teaching-learning process in language and literature courses, the open book exam improves my retention of the information related to literature courses; the open book exam is easier than closed book exam in English literature courses showed low mean and standard deviation compare other statements. These positive attitudes by our learners are in line with research in other contexts where learners have exhibited highly positive attitudes toward OBEs, such as Chan and Mui (2004), Gharib et al. (2012), Gujral and Gupta (2015), and Ramamurthy et al. (2016).

#### RQ.2: Does the OBE reduce the anxiety and stress levels associated with exams?

A close look at the first statement in Table 2 shows that the participants think that the OBEs do reduce the stress levels usually accompanying exams in general ( $M = 4.93$ ;  $SD = 0.90$ ). One possible reason for this is that learners usually associate anxiety with memorization. In CBEs, most students do not study on a daily basis; they postpone things to the last day, and they find themselves forced to memorize large quantities of data. In the case of OBEs, however, students start the process of studying at the early beginning of the course because they need to get their textbooks, attend their lectures and jot down meaningful notes. This makes their preparation for the OBE less stressful and more thorough.

TABLE 2 Reliability test of the questionnaire.

Variables	Number of items	Reliability of Cronbach alpha
Stress and anxiety relief	2	
The open book exam reduces the anxiety and stress levels associated with exams.		0.88
Studying for the open book exam makes me feel more motivated than studying for the closed book exam		0.84
Problem solving and learning	7	
The open book exam improves my problem-solving skills.		
The open book exam improves my note-taking skills in literature courses.		0.83
The open book exam boosts my engagement in the teaching-learning process in language and literature courses		0.85
The open book exam improves my understanding of the information related to literature		0.85
The open book exam improves my retention of the information related to literature		0.87
The open book exam makes me prepare harder for the exam in literature courses.		0.89
The open book exam enables me to learn new information during the exam.		
Convenience	5	
The open book exam is easier than the closed book exam in English literature courses.		0.87
The open book exam enables the faculty members teaching literature courses to cover the whole curriculum during the semester.		0.89
I prefer taking the open book exam more than taking the closed book exam in English literature courses		0.85
I believe that open-book exam fosters deeper learning in literature courses		0.83
The open book exam enables me to get higher scores in literature courses		0.87

TABLE 3 The respondents' attitudes toward open book exams.

No.	Constructs	Mean	Standard deviation	Level
<b>Stress and anxiety relief</b>				
1	The open book exam reduces the anxiety and stress levels associated with exams	4.93	0.90	High
2	Studying for the open book exam makes me feel more motivated than studying for the closed book exam	4.72	0.55	High
<b>Problem solving and learning</b>				
3	The open book exam improves my problem-solving skills	4.39	0.54	High
4	The open book exam improves my note-taking skills in literature courses	4.51	0.64	High
5	The open book exam boosts my engagement in the teaching-learning process in language and literature courses	2.32	0.42	Low
6	The open book exam improves my understanding of the information related to literature	4.63	0.57	High
7	The open book exam improves my retention of the information related to literature	2.05	0.68	Low
8	The open book exam makes me prepare harder for the exam in literature courses.	4.98	0.67	High
9	The open book exam enables me to learn new information during the exam	2.20	0.51	Low
<b>Convenience</b>				
10	The open book exam is easier than the closed book exam in English literature courses	2.29	0.21	Low
11	The open book exam enables the faculty members teaching literature courses to cover the whole curriculum during the semester.	4.84	0.69	High
12	I prefer taking the open book exam more than taking the closed book exam in English literature courses	2.13	0.37	Low
13	I believe that open-book exam fosters deeper learning in literature courses	4.52	0.37	High
14	The open book exam enables me to get higher scores in literature courses	4.97	0.43	High
15	The open book exam makes me prepare harder for the exam in literature courses.	4.98	0.67	High
	Total	3.82	0.53	High

High, higher prevalence; low, lower prevalence.

### RQ3: Does the OBE improve the Department of English Language and Literature students' understanding of literature courses?"

Items 5, 6, 8, 9, 10, and 13 in Table 3 deal with this question. From item 5, "The open book exam improves my understanding

of the information related to literature" (M = 4.63; SD = 0.57), it can be seen that this kind of exam better serves the literature courses since understanding these courses depends on the student's literary appreciation and nearly has nothing to do with the process of memorization. The low evaluation of item 6, "The

open book exam improves my retention of the information related to literature" ( $M = 2.05$ ;  $SD = 0.68$ ), highlights the fact that studying literature is related to higher thinking skills rather than the lower ones like memorizing. Item 8, "The open book exam enables the faculty members teaching literature courses to cover the whole curriculum during the semester, "is rated high by the participants ( $M = 4.84$ ;  $SD = 0.69$ ), and this is due to the fact that professors will not need to explain each and every point; they, in fact, can depend on the students higher thinking abilities to develop the critical thinking skills. The ranking of item 9, "I prefer taking the open book exam more than taking the closed book exam in English literature courses" ( $M = 2.13$ ;  $SD = 0.37$ ), appears to be strange, but when read with item 13, "The open book exam makes me prepare harder for the exam in literature courses" ( $M = 4.98$ ;  $SD = 0.67$ ) becomes logical. After all, students always prefer to avoid working hard. Item 10, "I believe that open book exam fosters deeper learning in literature courses, "which is rated really high ( $M = 4.52$ ;  $SD = 0.37$ ), highlights the fact that, as the participants indicate, OBEs are the best choice for a literature course. This result is supported by the high overall mean for these items ( $M = 4.52$ ;  $SD = 0.55$ ). Moreover, the factor analysis (Table 1) shows that OBEs were preferable by the students as they felt these exams did not create much burden and did not cause stress. With reference to increasing the problem-solving in the students and better learning experiences of students, the factor loadings exhibit that OBEs are more effective and favored by the students, and they found that OBEs as more convenient. To sum up, factor loadings exhibit that OBEs are the most effective in terms of providing relief against stress and anxiety.

## Qualitative approach

The responses of the interviews were categorized into three themes which tend to answer the research questions of this study.

### Theme 1: Opinions about OBEs

The participants were asked the following question: "What do you feel about open-book exams?" The researcher got the following opinions from the students:

- I can be more vigilant and attentive while revising, and I feel that there is no need to memorize the notes.
- I can understand and absorb more content and have sufficient time to revise.
- I feel that my thinking and problem-solving skills have been enhanced.
- I feel that it is more important to develop conceptual understanding rather than to recall factual information.
- I feel more confident now and do not feel the rush of studying at the 11th hour.

These statements indicate that the students have a positive approach toward the OBEs.

### Theme 2: Stress and anxiety

The participants were asked the following question: "Do you feel anxiety toward Open-Book Examination?" The researcher got the following views from the students:

- After taking open-book exams, I feel that my stress and anxiety have reduced to a large extent. I can now focus more on preparation rather than wasting time worrying about exams.
- I used to feel anxious before exams, and this never allowed me to score well in my exams. With OBEs, I feel more confident as I realize that conceptual learning is more important than memorizing large chunks of information.
- It helped me to overcome stress and anxiety. Moreover, I learned to use other resources to help me develop a better understanding of certain concepts.
- The fear of scoring well in examinations developed stress and anxiety in me. I used to memorize lengthy answers, which due to fear, I always tend to forget. OBEs questions are based on concepts and need logical reasoning, which changed my study approach. This eventually helped me relinquish my fear, stress, and anxiety.

These statements regarding stress and anxiety during and after exams showed that students had reduced fear, stress, and anxiety due to open-book exams.

### Theme 3: Better understanding

The participants were asked the following two questions for this theme: "Do you think that OBEs helped in developing a better understanding of American Literature?" and "What do you think are the benefits of OBE?" The researcher got the following views from the students:

- I felt the need to look for more reference materials; therefore, I read the syllabus more clearly and made a comparison of the textbooks and the reference materials. This was necessary for OBEs which eventually helped me to understand the course in a better manner.
- I learned to take down notes of every lecture that I attended, which served as additional knowledge as, at times, the teachers used to provide information that was not a part of the textbook, and retaining it only became possible through note-taking. This habit helped me to develop a better understanding of the course.
- I felt relieved as I felt that in OBEs, there is no need to memorize everything. We only need to understand the syllabus and the content.
- Rigorous quizzes, worksheets, and multiple choice questions helped to not just skim and scan the textbook but to go through the entire chapter/s so as to develop an enduring understanding of the course.

These statements showed that OBEs have helped students better understand the content of the American Literature course



and that they have developed this habit of attending the lectures and taking notes during lectures instead of memories the whole syllabus and the end.

## Discussion

The study aimed to identify the attitudes of Jordanian students in the English Language and Literature Department toward open-book exams (OBEs). The study formulated three research questions based on the aim of the research. Take the first research question into consideration which states, “What is the attitude of the English Language and Literature Department students at Al-Balqa Applied University toward the OBEs?” The study found positive attitudes of the learners, and this finding is in line with the research conducted by Chan and Mui (2004), Gharib et al. (2012), Gujral and Gupta (2015), and Ramamurthy et al. (2016) where learners have exhibited highly positive attitude toward OBEs. The results of the current study also support the findings of a study by Doghonadze and Demir (2013), where the overall assessment found the students to perceive the OBE more positively than teachers, though none of them sees it as a perfect kind of exam. However, the findings of this study are not in line with the study of Al-Kilidar et al. (2018). The pre-test/post-test of their study found that almost half of the students (47%) were in favor of OBE compared, and only 19% favored CBE. However, after actually taking the OBE and filling in the post-test survey, the participants’ preference for OBE was reduced to 18%, while the preference for CBE increased to 27%.

Taking the second research question into consideration, “Does the OBE reduce the anxiety and stress levels associated with exams?” The result shows that the participants think that the OBEs do reduce stress levels accompanied during exams in general. One possible reason for this is that learners usually associate anxiety with memorization. In CBEs, most students do not study on a daily basis; they postpone things, and they find themselves forced to memorize. In the case of OBEs, however, students start the process of studying at the beginning of the course because they need to get their textbooks, attend lectures and take down meaningful notes. This makes the OBE preparation less stressful and more thorough. The results here support previous research efforts carried out by Chan and Mui (2004), Gharib et al. (2012), Doghonadze and Demir (2013), Gharib and Phillips (2013), and Ramamurthy et al. (2016).

Answering the last research question of the study, “Does the OBE improve the Department of English Language and Literature students’ understanding of literature courses?” statements no 5, 6, 7, 8, 9, 10, and 13 in the survey questionnaire specifically answer this question. It can be seen that OBEs better serve the literature courses since understanding the content of these courses depends on the student’s literary appreciation and has nothing to do with the process of memorization. Literary courses are meant to teach students to generate and accept different views and opinions (Mays, 2015). This explains the low evaluation of item 6, which highlights the fact that studying literature is related to high-order thinking skills rather than lower ones like memorizing. Item 8 is rated high

by the participants, and this is due to the fact that professors will not need to explain each and every point; they, in fact, can depend on the student’s high thinking abilities to develop critical thinking skills. The ranking of item 9, when read with item 13, becomes logical. After all, students always prefer to avoid working hard. Item 10 highlights the fact that OBE is the best choice for a literature course. Due to the fact that there is an absence in the studies dealing with literature courses and the concept of OBEs, the results of this question have no comparison with the results of the previous studies to either support or oppose it. Most OBE studies deal with science courses like Medicine, Chemistry, and Engineering and rarely with business and management.

Al-Kilidar et al. (2018) find that an OBE is the best way of evaluating engineering management subjects since it puts the students in real-life situations. Dale et al. (2009), Heijne-Penninga et al. (2010), Eilertsen and Valdermo (2000), Teodorczuk et al. (2018), and Green et al. (2016) all agree that this unconventional way of evaluation leads to a deep understanding of the courses researched. Besides the questionnaire, the researcher also conducted interviews with five students. Each one of them was asked four open-ended questions. The answers indicated that open-book exams proved to be a good source for them to develop a better understanding of their courses. Moreover, it also reduced their fear, anxiety, and stress, which they developed toward the examination. However, they agreed that there was more learning, reading, and searching required for OBEs, but it also led to the development of high-order thinking skills in them. They realized that memorization is not the key to success but developing conceptual and knowledge-based learning is required to score well in exams.

## Conclusion

The central research question of this study investigates the attitude of English Language and Literature Department Students at Al-Balqa Applied University toward OBEs. The findings illustrated that generally students have positive attitudes in relation to this unconventional assessment protocol. The study concludes that students did not feel anxiety and stress while taking the OBEs, and they found it helpful in improving their understanding of literature courses. Therefore, this research concludes that the OBEs are not stress-intensive and do not cause anxiety among the students. Also, OBEs can be used as useful tool to develop problem-solving and improve notes-making habits of students. Moreover, it can be inferred from the results of the study that OBEs is a paramount technique that can enrich the students’ learning and engagement pertaining to learn literature. The researcher believes that this result is of great importance in the contemporary world of higher education, which has opted to improve its production by reassessing the educational outcomes to cater to the needs of the new market. Today’s world does not depend on the amount of information a job applicant stores in his memory. What really matters is whether or not this person has acquired enough

high-order thinking abilities like a problem-solving and knowledge application skills. Besides, this study has one limitation; the sample size of the study was too small. Therefore, future researches can be conducted with a greater sample size and in another.

## Pedagogical recommendations

1. Conducting more similar studies targeting school students.
2. Providing faculty members with training courses about using open-book exams for assessment
3. Encouraging faculty members to use take-home exams for assessing EFL undergraduates, especially in literature courses that shall promote creativity among students.
4. Ensuring that undergraduates at Jordanian universities are provided with adequate information sources. This can be done by equipping the libraries of Jordanian universities with resources and providing the students with an efficient wireless internet connection that shall allow ESL undergraduates to prepare well for open book exams.

## Future recommendations

Future researchers can focus on the following areas:

1. The teaching skills needed to prepare students for OBEs.
2. The benefits of employing OBEs in literature courses.

## Data availability statement

The original contributions presented in the study are included in the article/[Supplementary material](#), further inquiries can be directed to the corresponding author.

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## Author contributions

TA-S set the research theme, prepared the survey and the interview questions, and wrote the introduction and the abstract. IA prepared the literature review section and did the proofreading. YA-S prepared the qualitative data analysis. MA prepared the quantitative data analysis. HA-H worked on the discussion section and checked the references. All authors contributed to the article and approved the submitted version.

## Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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## Supplementary material

The Supplementary material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/feduc.2022.1050587/full#supplementary-material>

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