The Role of E-learning Platforms in Supporting the Active Learning Elements for the First Three Grades

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Abstract—This study explores the role of e-learning platforms in supporting the active learning elements for the first three grades. The study's instrument is represented in a questionnaire consisting of 35 items. This questionnaire targets 4 areas, namely: speaking and listening, reading, writing, in addition to meditation and thinking. The sample consists of 336 female and male teachers. Results show that classroom teachers believe that e-learning platforms play a moderate role in supporting the active learning elements. Such platforms play a major role in supporting the elements of speaking, listening, and reading, while they play a minor role in supporting writing as well as meditation and thinking elements. The study recommends holding annual periodical conferences which might aim at developing the classroom teachers' skills in relation to applying the elements of active learning. The study also recommends developing such platforms to improve teachers' skills.

Keywords—e-learning platforms, active learning elements, first three grades

1 Introduction

Several changes have occurred to human societies due to the Coronavirus pandemic. This pandemic has impacted various aspects of life, including educational aspects. It also affected the educational inputs. Thus, a need for adopting a new approach was addressed to maintain the continuity of the teaching process. Therefore, the government decided to use e-learning platforms to provide education. There is also a growing need for evaluating the use of those platforms by teachers and exploring the benefits of such platforms in the educational process, where the classroom teacher works as a milestone in achieving this transformation. In other words, classroom teachers play a major role in providing students in the first three grades with education and basic knowledge. So, if the electronic platform is beneficial in teaching students in the first three grades, it shall play an effective role in meeting the goals of e-learning.

In this context, the emergence of e-learning platforms marks the beginning of changing the nature of e-learning environments. Those platforms make those environments

more convenient for teaching students in the first three grades. Those platforms contribute to improving the e-learning environments through offering opportunities for cooperation and sharing learning material and expertise [1].

Most of the educational institutions in various countries use electronic systems for creating an interactive learning environment. Such systems include learning management systems. The latter systems may be called the virtual learning environment or the e-learning platforms [2].

E-learning platforms offer a set of interactive online services that are not limited to space or time. They provide learners, teachers, and parents with information and tools for improving both teaching and learning processes [3]. To enable tutors and learners to communicate individually or collectively and discuss themes and shared documents [4]. Through those platforms, teachers can design curricula and students can access them and be engaged in various learning activities as shown in Figure 1.

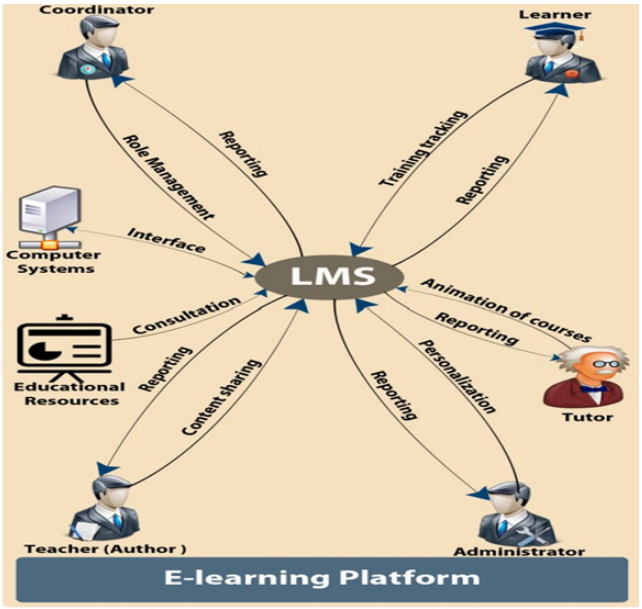

Fig. 1. The general architecture of an (LMS) [5]

Abu khutwa adds that using e-learning platforms is based on the connectives theory's principles that were developed by Siemens and Downes. Those platforms fit the needs of the 21st century as they are consistent with the constructivist theory and make the learning process more enjoyable and fun[6]. This, in turn, forces learners to interact with the content, teachers, and peers because such platforms make the tasks that develop their skills more engaging [7].

Railean defines e-learning platforms as a comprehensive group that consists of interactive services which aim at enabling the system users to communicate with each other in order to exchange information [8]. In general, there are several merits for e-learning platforms. For example, they contribute to developing the educational process

and allow learners to keep up with the advantages of technological developments. They also contribute to raising the interaction between students and developing their scientific and cognitive abilities. Moreover, they contribute to raising the motivation of students towards learning and facilitating the role of teachers along with improving the quality of education [9] [10].

Some educational policies aimed at developing the quality of education and improving learning outcomes, especially during the Covid-19 crisis. Most of the educational institutions in the world seek to activate, develop, and engage e-learning platforms in various academic stages. However, there is a scarcity in the studies conducted in the Arab world concerning the role of those platforms in developing active learning platforms. Active learning is one of the practices and teaching procedures that aim to activate and maximize the role of the learners through the various activities they engage in using online platforms.

Active learning refers to a broad range of behaviors and activities, including reading, writing, discussion, question-posing, and problem-solving [11].

While Sa'adeh et al discuss the active learning elements that must be accounted for which are, namely, speaking and listening, reading, writing, and meditation and thinking [12]. Active learning is perceived as the process of engaging learners in the learning process, where learners participate and are engaged in the learning processes, instead of receiving many pieces of information only [13][14].

It is necessary to examine the role of e-learning platforms in supporting the active learning elements for the first three grades in order to apply the modern guidelines to activate using the e-learning platforms in teaching and pay attention to achieving different learning outcomes. Due to the contradiction between studies in terms of results and having many technological developments, it was necessary to conduct this study, in addition to the global crisis that affected education, in general, and the classroom teachers, in particular.

Implementing distance education made using e-learning platforms one of the most significant learning means. Many studies were conducted to explore the role of e-learning platforms. For example, Zamil explored the attitudes of the lower primary school female and male teachers in UNRUWA towards active learning practices. It was found that there are differences in the attitudes of the respondents, which can be attributed to gender for the favor of females. It was found that there were no differences in the respondents' attitudes that can be attributed to experience, grade, or academic qualification [15].

Al-Gharaibeh explored the role of different e-learning platforms in promoting health awareness among 6th grade female students and their attitudes towards using such platforms. It was found that e-learning platforms have a positive impact on promoting health awareness among 6th grade female students and that female students' attitudes towards using e-learning platforms are positive[16].

Al-Bawi and Ghazi explored the impact of using the Classroom Google platform on the achievement of students in the proceeding image course in the Computer Department and examined students' attitudes towards e-learning. It was found that using this e-learning platform has a positive impact on the achievement of the experimental

groups and that it positively impacted the participants' attitudes towards e-learning [17].

Al-Mutairi investigated the role of e-learning platforms in improving the educational process among secondary school students from the perspective of teachers. It was found that the role is moderate and there were no significant differences found in the respondents' attitudes which can be attributed to gender in all areas jointly and separately. The study also found that there are differences that can be attributed to curricula in all the areas for the favor of literary courses [18].

Based on the above, most of the studies shed light on how significant using e-learning platforms is. Such studies benefited the researcher and enabled her to draft the theoretical literature, the study's procedures, and the study's tools. Contrary to the previous studies, this study focuses on the role of e-learning platforms in supporting the active learning elements for the first three grades.

2 Statement of the problem and the study' questions

The study's main problem is exploring the relationship between the e-learning platforms and the active learning elements for the first three grades. There is a raising need to shed light on this problem because of the increasing complaints about the low achievements made by students in the first three grades. Those grades are provided with many elements in the educational reform programs, but without providing attention to those grades, all attempts to make reforms will not fit reality. In addition, this study explored the relationship between the active learning elements and e-learning platforms. Such platforms contribute to meeting distance learning goals as they enable students in the first three grades to improve their capabilities and to improve their levels. It is clear that the trends in this study are consistent with the contemporary educational reform trends adopted by most countries. Examining the use of e-learning platforms by schools in primary school is considered a new experiment in the field of education. There is also a need for exploring the use of those platforms from the perspective of classroom teachers, as teachers are a key element in the e-learning process and the directors in the educational process.

2.1 Questions of the study

1. What is the role of e-learning platforms in supporting the active learning elements used in the first three grades?
2. Are there any significant differences, at the significance level of a=0.05, between the respondents' attitudes which can be attributed to gender, academic qualification, and experience?

3 Methods

The current study uses a descriptive approach because it is the most suitable approach for meeting the study's objectives. This approach was mainly used to explore the role of e-learning platforms in supporting active learning elements for the first three grades.

3.1 The Study's sample

The study's sample consists of 336 classroom teachers in public and private schools that are affiliated with the Directorate of Education of Lewa' Wadi As-Seir in Amman during the first semester of the academic year 2021/2022. See Table [1] presents the distribution of the sample in accordance with several variables.

Table 1. Distribution of the respondents in accordance with the study's variables

Variable	Level	Frequency	Percentage
Gender	Male	11	3.3
	Female	325	96.7
	Total	336	100.0
Academic qualification	BA degree	164	48.81
	Higher diploma	95	28.27
	MA degree or higher	77	22.92
	Total	336	100.0
Experience	Less than 5 years	133	39.58
	5 – 10 years	148	44.06
	More than 10 years	55	16.36
	Total	336	100.0

4 Measurement instruments

A questionnaire was designed to be the study's data collection tool. It consists of two sections, where the first section collects personal data about the participants and the second section collects data about the four areas that are related to the role of e-learning platforms in supporting the active learning elements for the first three grades. Those areas are speaking and listening, reading, writing, as well as meditation and thinking.

To check the validity of the questionnaire, it was passed to a group of experts who have the relevant expertise in the fields of designing curricula, teaching methods, and educational technology. The final version of the questionnaire consists of 35 items. The five-point Likert scale was used to answer the items of the questionnaire with (strongly agree, agree, neutral, disagree, and strongly disagree). The Cronbach alpha coefficient value was also used to check the validity of the study tool, and it ranged between 0.72-

0.81. While the area that shows the highest Cronbach alpha coefficient value is speaking and listening, the area that shows the lowest Cronbach alpha coefficient value is meditation and thinking. The overall Cronbach alpha coefficient value is 0.80, and it is an accepted value which indicates that the questionnaire has a high degree of reliability.

5 Data analysis

The study's questions were answered using the following statistical methods:

1. Means, standard deviations, frequencies, and percentages.
2. T-test.
3. The one-way analysis of variance (ANOVA).
4. Scheffe test.

6 Results and discussion

6.1 Results and discussion related to the first question

1. What is the role of e-learning platforms in supporting the active learning elements used in the first three grades?

To answer this question, means and standard deviations were calculated for all areas and for each item. Tables from 2 to 6 present the results related to the first question.

Table 2 presents the means of the study's areas which range between 2.01 and 4.44. The standard deviations of those areas range between 0.56 and 1.02. The role of e-learning platforms in supporting the active learning elements for the first three grades is moderate. The overall value of the mean is (3.32) and the overall standard deviation is (0.41). The latter result indicates that e-learning platforms play a significant role in supporting the active learning elements for the first three grades. However, this role is not as it ought to be in all other areas. The latter result may be attributed to designing and activating those platforms in various educational institutions in Jordan. The activation of those platforms occurred recently due to the Coronavirus pandemic and changing the form of education from face-to-face to online education. Thus, the time provided for assessing those platforms is not sufficient, and therefore, those platforms did not get adequate support for taking all the active learning elements into consideration.

Table 2. Means and standard deviations for exploring the respondents' attitudes towards the role of e-learning platforms in supporting the active learning elements for the first three grades

Rank	Area-element	Mean	Std.	Level
1	Speaking and listening	4.44	0.57	Very high
2	Reading	4.37	0.56	Very high
3	Writing	2.01	0.76	Low
4	Reflection and thinking	2.01	1.02	Low
	Overall	3.21	0.41	Moderate

The mean of speaking and listening area has ranked the first, with a value of (4.44) and a standard deviation of 0.57. The mean of the reading area has ranked second, with a value of (4.37) and a standard deviation of 0.56. Moreover, the mean of the writing area has ranked third, with a value of (2.01) and a standard deviation of 0.76. The mean of the reflection and thinking area has ranked the last, with a value of (2.01) and a standard deviation of 1.02. The latter results may be attributed to several reasons. For instance, they may be attributed to the fact that those platforms include a variety of electronic activities that employ active learning strategies through having classroom discussions and dialogues between students and the teacher and connecting different subjects with the real world for simplification. In addition, those platforms were designed to upload educational movies and interactive videos. Thus, they focus on attracting students and ensuring that students are focused while presenting the content. They also focus on letting students express their views with much confidence by paying little attention to the writing, reflection, and thinking activities. This indicates that designing e-learning platforms is not flexible.

Those results differ from the results reached by Al- Gharaibeh's study [13], but they are in agreement with the results of the study conducted by Al-Mutairi [15]. The Table 3 shows the means and standard deviations calculated for all items of each area.

Table 3. Means and standard deviations for the first area (speaking and listening)

No.	Rank	Item	Mean	Std.	Level
1	1	E-learning platforms offer opportunities for having good dialogues with students about different educational topics	4.51	0.68	Very high
2	2	E-learning platforms offer opportunities for letting students develop their direct interaction and communication skills	4.49	0.69	Very high
3	8	E-learning platforms provide students with adequate time to mention the things they learnt	4.33	0.78	Very high
4	7	E-learning platforms allow carrying out activities that enable students to find the connection between the new expertise and the previous expertise	4.37	0.82	Very high
5	9	E-learning platforms grant students adequate time to express their views about the educational topics	4.31	0.77	Very high
6	4	E-learning platforms allow encouraging students using various tools	4.47	0.74	Very high
7	3	E-learning platforms offer opportunities for asking questions to the teacher, students, and peers	4.48	0.69	Very high
8	11	E-learning platforms support the passive listening feature among a number of students	4.10	0.82	Very high
9	5	E-learning platforms support the feature of displaying scenes and situations to students in order for them to observe after listening	4.45	0.73	Very high
10	6	E-learning platforms support the feature of holding discussions through small groups of students	4.43	0.72	Very high
11	10	E-learning platforms allow displaying multimedia to engage students in dialogues	4.28	0.81	Very high
		Total	4.44	0.57	Very high

Based on Table 3, the means range between 4.10 and 4.51, and the standard deviations range between 0.68 and 0.82. The mean of item No. (1) which states that "E-learning platforms offer opportunities for having good dialogues with students about different educational topics" has ranked first. The mean of item No. (8) which states that "E-learning platforms support the passive listening feature among a number of students" has ranked the last. It can be indicated that those platforms support the common dialogue system, and this contributes to displaying a real image of students and their level of comprehension. Through having teacher-student dialogues, the problems by students and the difficulties facing them while shedding light on different topics shall be addressed. Thus, there is a need for paying more attention to the listening and speaking processes to meet the goals of the active learning process. Active learning is not limited to speaking and getting engaged in dialogues only. In fact, it involves listening too. Any e-learning platform must support the passive listening features by offering effective systems and tools to teachers and students.

Based on Table 4, the means range between 4.48 and 4.29, and the standard deviations range between 0.81 and 0.67. The mean of item No. (12) which states that "E-learning platforms allow carrying out systematic expressive reading activities that encourage students to learn" has ranked first. The mean of item No. (18) has ranked last. It states that "E-learning platforms support the process of carrying out critical reading activities". All means are very high, and this indicates that the e-learning platform focuses on the reading activities that are based on playing for teaching students in the first three grades. It also indicates that those platforms seek to create a fun environment that promotes a sense of competition while carrying out reading activities. Those platforms seek to achieve that through using the narrative style, where the content was created based on it. The narrative style is used by e-learning platforms.

Table 4. Means and standard deviations of the items of the second area (reading)

No.	Rank	Item	Mean	Std.	Level
12	1	E-learning platforms allow carrying out systematic expressive reading activities that encourage students to learn	4.48	0.67	Very high
13	3	E-learning platforms offer opportunities for choosing a variety of reading activities with students	4.40	0.73	Very high
14	5	E-learning platforms allow assigning a variety of reading assignments that are based on active learning	4.33	0.76	Very high
15	2	E-learning platforms allow rewarding students directly after reading	4.47	0.67	Very high
16	7	E-learning platforms allow using assessment methods that suit each type of the types of the reading activities	4.30	0.77	Very high
17	6	E-learning platforms allow providing students with feedback after carrying out reading activities	4.32	0.78	Very high
18	8	E-learning platforms support the process of carrying out critical reading activities	4.29	0.81	Very high
19	4	E-learning platforms support the interpretive reading processes with offering examples	4.36	0.71	Very high
		Total	4.37	0.56	Very high

Based on Table 5, the means range between 1.75 and 2.1, and the standard deviations range between 1.31 and 0.96. The mean of item No. (22) has ranked first, and it states that "E-learning platforms allow displaying words to students about a specific educational topic in an accurate and interesting manner". The mean of item No. (23) has ranked the last, and it states that "E-learning platforms allow students to come up with ideas to write further about them". This result indicates that teachers of the first three grades show poor attention to the activation of e-learning platforms. Such poor attention is clear in the process of displaying words and the way words are written in an interesting manner. Those teachers overlook the fact that students are assessed in light of those skills. This result indicates that the role of those platforms in allowing students to come up with ideas is vague from the perspective of the first three grades. This contributes to increasing the gap between theory and practice.

Table 5. Means and standard deviations of the items of the third area (writing)

No.	Rank	Item	Mean	Std.	Level
20	2	E-learning platforms allow displaying writing activities in a systematic and clear manner	2.09	1.25	Low
21	5	E-learning platforms allow detecting writing mistakes made by students	2.02	1.14	Low
22	1	E-learning platforms allow displaying words to students about a specific educational topic in an accurate and interesting manner	2.19	1.31	Low
23	8	E-learning platforms allow students to come up with ideas to write further about them	1.75	0.96	Very Low
24	3	E-learning platforms allow writing notes on students' writing works	2.08	1.22	Low
25	6	E-learning platforms allow carrying out a variety of writing activities that suit students	1.95	1.17	Low
26	7	E-learning platforms allow using the cooperative writing board on the educational topic	1.94	1.11	Low
27	4	E-learning platforms allow carrying out individual and group educational activities for writing classes	2.03	1.17	Low
		Total	2.01	0.76	Low

Students' writing creativity shall not be identified by the classroom teachers of the first three grades. That is because classroom teachers of the first three grades do not have adequate training expertise about the way of using those platforms. The latter results may be attributed to the interest of the classroom teachers of the first three grades in communicating orally with students rather than communicating in writing. This is because those platforms support oral communication more than writing-based communication through their tools and content. The latter result goes in line with the result reached by Al-Mutairi [15].

Based on the Table 6, the means range between 1.61 and 2.25, and the standard deviations range between 1.29 and 0.72. The mean of item No. (28) has ranked first, and it states that "E-learning platforms allow granting students the opportunity to describe the things they have learned in real life or virtual situations". The mean of item

No. (34) which states that "E-learning platforms allow students to carry out self-assessment practices to assess their ability to come up with reflective ideas and organize them" has ranked last. Those low means may be attributed to the lack of training expertise related to the descriptive reflective aspects of the addressed educational topics among the teachers of the first three grades. That applies especially to the stage of providing students with basic knowledge, as this stage is critical and basic in the educational stages. The latter results may be attributed to the nature of designing e-learning platforms. Those platforms were designed based on the logical, sequential, stage-based thinking method, and in accordance with the educational subjects. In addition, they include many activities that are based on playing. However, they were not provided with much attention in terms of supporting their content with thinking, reflection, and exploration activities. Those platforms include conventional tools such as worksheets. The latter results are consistent with the results reached by Al-Mutairi [15].

Table 6. Means and standard deviations of the items of the fourth area (reflection and thinking)

No.	Rank	Item	Mean	Std.	Level
28	1	E-learning platforms allow granting students the opportunity to describe the things they have learnt in real life or virtual situations	2.25	1.29	Low
29	4	E-learning platforms allow students to use reflective knowledge through classifying it and applying a specific format to it	2.09	1.09	Low
30	2	E-learning platforms allow displaying new reflective ideas to students	2.12	1.13	Low
31	3	E-learning platforms allow providing students with learning expertise that stimulates students' critical and reflective thinking	2.10	1.05	Low
32	6	E-learning platforms contribute to turning students' dialogue into thinking and reflection tools	1.96	0.94	Low
33	5	E-learning platforms allow solving problems related to educational topics with students	2.04	1.00	Low
34	8	E-learning platforms allow students to carry out self-assessment practices to assess their ability to come up with reflective ideas and organize them	1.61	0.72	Very Low
35	7	E-learning platforms allow students themselves to conduct research to find information, think about it, and reflect on it	1.90	0.95	Low
		Total	2.01	1.02	Low

6.2 Results and discussion related to the Second question

2. Are there any significant differences, at the significance level of a=0.05, between the respondents' attitudes which can be attributed to gender, academic qualification, and experience?

Means and standard deviations are calculated to answer the second question. They represent the respondents' attitudes in accordance to gender, academic qualification, and experience. T-test for independent samples was conducted for exploring the respondents' attitudes according to gender. The one-way analysis of variance (ANOVA)

was conducted for exploring the respondents' attitudes in relation to experience and academic qualification. Results in this regard are displayed in Tables from 7 to 12.

Based on the Table 7, there are no any significant differences at the significance level of a=0.05 between the respondents' attitudes that can be attributed to gender in all the study's areas. Those attitudes concern their attitudes towards the role of e-learning platforms in supporting the active learning elements for the first three grades. This result may be attributed to having a convenient educational climate for teaching students in the first three grades by female and male teachers. It may also be attributed to having similar teaching practices in the schools teaching males and the schools teaching females due to the significance of this educational stage. This stage belongs to one educational system, and all teachers of the first three grades received the same training on e-learning platforms. This result is in agreement with the results of Al-Mutairi [15]. The latter researcher found that there are no significant differences at the significance level of a=0.05 between the respondents' attitudes that can be attributed to gender. Conversely, the before-mentioned results differ from the results in the study conducted by Zamil [12].

Table 7. results of t-test for exploring whether there is a significant difference between respondents' attitudes that can be attributed to gender

No.	Area	Gender	N.	Mean	Std.	T value	Sig.
1	Speaking and listening	Male	11	4.41	0.61	0.975 -	0.330
		Female	325	4.46	0.53		
2	Reading	Male	11	4.35	0.58	0.749 -	0.454
		Female	325	4.38	0.54		
3	Writing	Male	11	2.06	0.78	-1.610	0.108
		Female	325	1.97	0.74		
4	Reflection and thinking	Male	11	2.02	1.00	-0.185	0.853
		Female	325	2.00	1.03		

Based on Table 8, there are differences between means in the areas jointly and separately which can be attributed to academic qualification. To identify whether those differences are significant or not, one-way analysis of variance (ANOVA) was carried out. Table 9 presents the results of one-way analysis of variance (ANOVA).

Table 8. Means and standard deviations for the respondents' attitudes in accordance with academic qualification

No.	Area	Academic Qualification	N=336	Mean	Std.
1	Speaking and listening	BA degree	164	4.51	0.59
		Higher diploma	95	4.42	0.57
		MA degree or higher	77	4.51	0.55
		Total	336	4.44	0.57
2	Reading	BA degree	164	4.35	0.66
		Higher diploma	95	4.35	0.56
		MA degree or higher	77	4.44	0.53
		Total	336	4.37	0.56

3	Writing	BA degree	164	1.88	0.73
		Higher diploma	95	2.02	0.75
		MA degree or higher	77	2.01	0.79
		Total	336	2.01	0.76
4	Reflection and thinking	BA degree	164	1.93	1.02
		Higher diploma	95	2.01	1.01
		MA degree or higher	77	2.02	1.04
		Total	336	2.01	1.02

Based on the Table 9, there are no significant differences at the significance level of a=0.05 between the respondents' attitudes towards academic qualifications in all areas. This is because f values are not significant. This result is due to the fact that all classroom teachers of the first three grades, regardless of the academic qualification, went through the same training programs in relation to the e-learning platforms and their activation in the teaching process, including the programs related to active learning, as training is a feature of the active learning features and a significant variable in the active learning practices. This result is in agreement with the results of Sa'adeh's study which found that there is no significant difference between the sampled female teachers in terms of training on the active learning method which can be attributed to academic qualifications[10].

Table 9. The results of one-way analysis of variance (ANOVA) to identify whether the academic qualification-related differences are significant or not

No.	Area	Source of variance	Sum of square	Df.	Mean square	F value	Sig.
1.	Speaking and listening	Between groups	0.825	2	0.413	1.292	0.275
		Within groups	194.435	334	0.319		
		Overall	195.261	336			
2	Reading	Between groups	0.637	2	0.318	1.019	0.362
		Within groups	190.382	334	0.313		
		Overall	191.019	336			
3	Writing	Between groups	0.664	2	0.332	0.577	0.562
		Within groups	350.161	334	0.575		
		Overall	350.824	336			
4	Reflection and thinking	Between groups	0.291	2	0.145	0.14	0.869
		Within groups	629.842	334	1.034		
		Overall	630.133	336			

Based on Table 10, it appears that there are differences between the means of all areas jointly and separately in relation to experience. To identify whether those differences are significant or not, a one-way analysis of variance (ANOVA) was conducted. Table 11 presents the results of the one-way analysis of variance (ANOVA).

Table 10. The results of the t-test for exploring whether there is a difference between respondents' attitudes that can be attributed to experience

Area	Experience	Frequency	Mean	Std.
Speaking and listening	Less than 5 years	133	4.63	0.38
	5-10 years	148	4.51	0.58
	Mora than 10 years	55	4.39	0.58
	Overall	336	4.44	0.57
Reading	Less than 5 years	133	4.53	0.44
	5-10 years	148	4.43	0.63
	Mora than 10 years	55	4.32	0.55
	Overall	336	4.37	0.56
Writing	Less than 5 years	133	2.55	0.84
	5-10 years	148	1.87	0.80
	Mora than 10 years	55	1.95	0.69
	Overall	336	2.01	0.76
Reflection and thinking	Less than 5 years	133	2.74	1.36
	5-10 years	148	1.78	0.96
	Mora than 10 years	55	1.94	0.90
	Overall	336	2.01	1.02

Table 11. Results of ANOVA for identifying the differences in all the areas jointly and separately in accordance with experience

No.	Area	Source of variance	Sum of square	Df.	Mean square	F value	Sig.
1	Speaking and listening	Between groups	4.414	2	2.207	7.043	0.001
		Within groups	190.846	334	0.313		
		Overall	195.261	336			
2	Reading	Between groups	3.344	2	1.672	5.425	0.005
		Within groups	187.675	334	0.308		
		Overall	191.019	336			
3	Writing	Between groups	26.283	2	13.142	24.66	0.000
		Within groups	324.54	334	0.533		
		Overall	350.824	336			
4	Reflection and thinking	Between groups	48.326	2	24.163	25.292	0.000
		Within groups	581.807	334	0.955		
		Overall	630.133	336			

Based on Table 11, there are significant differences at the significance level of a=0.05 between the respondents' attitudes that can be attributed to experience in all of the study's areas. To identify whether those differences are significant or not, the Scheffe test was conducted and the results are shown in the Table 12.

Table 12. The results of Scheffe test to identify whether the experience-related differences are significant or not

Area	Experience	Mean difference	Sig.	The one that the difference is in its favor
Speaking and listening	Less than 5 years	0.11845	0.351	=
	5-10 years	.24047*	0.003	Less than 5 years
	Mora than 10 years	0.12203	0.107	=
Reading	Less than 5 years	0.10502	0.433	=
	5-10 years	.20999*	0.01	Less than 5 years
	Mora than 10 years	0.10497	0.186	=
Writing	Less than 5 years	.68506	0.000	Less than 5 years
	5-10 years	.60141*	0.000	Less than 5 years
	Mora than 10 years	0.08365	0.539	=
Reflection and thinking	Less than 5 years	.95446*	0.000	Less than 5 years
	5-10 years	.79377*	0.000	Less than 5 years
	Mora than 10 years	0.16069	0.281	=

Based on Table 12, many results can be accounted for. First, there is a significant difference at the significance level of a=0.05 between the ones having less than 5 years and the ones having more than 10 years. This difference is in favor of the ones having less than 5 years in all areas. Second, there is a significant difference at the significance level of a=0.05 between the ones having less than 5 years and the ones having 5-10 years. This difference is in favor of the ones having less than 5 years in the third and fourth areas (i.e., writing and reflection and thinking). That may be attributed to the fact that the ones having less than 5 years do not have much experience. However, they graduated during the 21st century, which is the era of technology. Therefore, while studying at universities, teachers should have acquired the needed technical skills for teaching as they benefit teachers in their careers. Such skills can be developed through designing training programs on e-learning platforms. They were activated in teaching the students in the first three grades due to the training courses given to novice teachers. A teacher with high training experience, regardless of the years of experience, can practice active learning effectively. This result does not match the one reached by Zamil [12].

7 Recommendations

In the light of the above-mentioned results, this study recommends motivating teachers of the first three grades to use the features and tools of e-learning platforms in the teaching process. Training workshops that focus on the active learning elements of those platforms shall be held. Those workshops must be attended by teachers of the first three grades, regardless of how many years of experience they have. It is also recommended to review the studies conducted about the role of those platforms in supporting the active learning elements and tools to benefit from the results of the previous studies.

Additionally, it is recommended to hold annual periodical conferences to be attended by the experts in educational technology, curricula designing, and teaching methods, as well as the classroom teachers of the first three grades. Those conferences must aim at developing the teachers' skills in relation to the active learning elements. Finally, the study recommends developing such platforms in a way that ensures that all areas are effectively taught and learned.

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