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The Impact of Proposed Online Problem-Based Learning Activities on Developing University EFL Students' Expository Essay Writing

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Abstract

The current study aimed to investigate the impact of using proposed online problem-based learning activities on developing university EFL students' expository essay writing skills. The study sample consisted of 74 students majoring in English from the World Islamic Sciences and Education University in Amman. The participants were randomly divided into two groups, experimental and control. To achieve the goals of the study, the researcher designed a checklist to identify the expository essay writing skills that university EFL students need and a pre/post expository essay writing test. The findings revealed that there was a statistically significant difference at (α=0.05) in the post expository writing test between the two groups in favor of the experimental group that was taught by using online problem-based learning activities. The experimental group outperformed the control group in different essay writing areas including content, organization, vocabulary, language use, and conventions.

Keywords: EFL, Expository Essay, Problem-Based Activities.

Introduction

Writing has been viewed as one of the complex language skills that require thorough techniques to help the learners produce a well-composed type of writing. Nunan (1999) stated that writing is one of the difficult activities that students mostly encounter while learning their mother tongue and the target language.

Writing is not only concerned with producing a piece of writing that is grammatically correct, but it should reflect a communicative ability which helps deliver what the writer intends to convey. Qamariah (2016) stressed the need to gear efforts toward the right target of writing correct English, noting that most of the effort is aimed at skill building and grammar instruction.

Writing could be classified into two types: creative writing, which includes some genres, such as essays, short stories and poems and functional/technical writing, such as scientific reports and instructions.

Essay writing in English is one of the most important aspects that learners of English as a Foreign Language (EFL) need to master to communicate effectively. An essay is defined as a relatively short piece of writing on a particular topic. It can be one of the following types: narrative, descriptive,

expository, and argumentative. Each has a certain purpose. The structure of the essay is based on three parts; namely, introduction, body, and conclusion.

Lim and Phua (2019) pointed out that coming up with a good quality of content, rhetorical flair, and an appropriate, competent and accurate use of language are viewed as the most important features of a good essay writing.

Learning and teaching contexts require an ability to write well that is developed through practice and supported by appropriate strategies and techniques adopted by EFL instructors, including the use of different active learning tools, technology and online sources.

As for the sudden transition to online education over 2019, a temporary interruption of most educational activities took place in many countries across the world because of coronavirus (COVID-19) pandemic. A quick and unexpected shift took place from face-to-face education to online learning mode as the pandemic forced various organizations, including the educational ones to switch to new technologies and techniques so as to ensure continuity of the educational process.

At the local level, the government of the Hashemite Kingdom of Jordan announced, on March 14, 2020, that all kindergartens, schools and universities were to be closed and shift to online learning to mitigate COVID-19 impact. Such developments in the mode of teaching and learning forced EFL instructors to adopt new strategies and techniques, such as concept-mapping, problem-solving, brainstorming, listing, clustering and online group work and to make use of the available online mode and electronic resources so as to help EFL learners overcome difficulties and continue their education.

With regard to the use of problem-solving in foreign language teaching and learning, many studies (Aouine and Sadek 2020; Kadhim 2014 and Jonassen 2011) indicated that Problem-Based Learning (PBL) could be viewed as an important tool used by EFL instructors to motivate learners to effectively participate in the process of teaching and learning. Jonassen (2011) asserted that problem-solving is deemed to be a key to cognitive activity in everyday and professional contexts in the field of language teaching and learning.

PBL is viewed as the process of making use of existing knowledge and information to tackle unanswered questions or challenging situations. The problem-solving model is mainly based on five stages as follows: 1- identifying the problem, 2- gathering information about it, 3- selecting a suitable solution, 4- carrying out the solution and 5- analyzing and evaluating the outcomes.

Cindy (2004, 235) stressed that "in PBL, student learning centers on a complex problem that does not have a single correct answer. Students work in collaborative groups to identify what they need to learn in order to solve a problem. They engage in self-directed learning and then apply their new knowledge to the problem and reflect on what they learned and the effectiveness of the strategies employed".

The use of PBL has long been advocated by many specialists in the field of Teaching English as a foreign language (TEFL). A number of studies (Aouine and Sadek 2020; Kadhim 2014 and Patrick and Ngchin Leong 2014) have been conducted to investigate the impact of PBL and online education on students' performance in different language skills including listening, speaking and reading, leaving a gap

for the this study to examine the impact of implementing proposed online PBL activities on university EFL students' writing skills in general and expository essay writing in particular.

Statement of the Problem

Being a university TEFL instructor, the researcher noted that most of university students encounter challenges in writing English essays and the majority of them struggle a lot while writing. The researcher observed that many EFL learners still act as low achievers, especially in essay writing and most of them were unable to write well- structured and meaningful essays.

Furthermore, the findings of several studies, carried out in the field of TEFL in Jordan, revealed that learners still face difficulties in writing in English (Allala & Al-Jamal 2019; Ibnian 2017; Obeiah & Bataineh 2016; Harb 2013; Ababneh and Lababneh 2013 and Al-Abed Al-Haq and Al-Sobh 2010).

Belkhair and Benyelles (2017) stated that writing a well-composed essay in the target language is not an easy task as it requires much time and effort, indicating that EFL learners encounter some difficulties and challenges while writing in the target language and that such obstacles might hinder them from producing effective essays.

Although there are many studies on the use of problem- solving and the implementation of online mode in TEFL field, research on writing in EFL in general and expository essay is still limited. Therefore, this study attempts to detect the impact of proposed online PBL activities on developing university EFL students' writing skills in general and expository essay writing in particular.

Questions of the Study

This study tries to find answers to the following questions:

1- What expository essay writing skills do university EFL students need?
2- What is the impact of proposed online problem-based learning activities on developing university EFL students' expository essay writing skills?

Objectives of the Study

The current study aims at:

-Identifying the key writing skills that university EFL students need in expository essay writing.
-Investigating the impact of using proposed online problem-based learning activities on developing university EFL students' expository essay writing skills.

Significance of the Study

The results of this study are hoped to help in guiding EFL instructors at university level to adopt new strategies and techniques in EFL classes to improve EFL learners' writing skills in general and expository essay writing in particular. The results could also help university EFL students improve their level in different language skills, particularly in essay writing field. In addition, the findings of the current study could guide EFL curriculum planners and syllabi designers to incorporate online problem-based learning activities into EFL writing curricula and syllabi in the future.

Delimitations of the Study

The current study was carried out during the first semester of 2020/2021 academic year, over 6 weeks, with two meetings a week. The study is limited to investigating the impact of using proposed online problem-based learning activities on developing university EFL students' expository essay writing skills. It is only concerned with students of the World Islamic Sciences and Education University enrolled in "Writing 2" as a compulsory course for English language and literature majors. Moreover, the study targets certain expository essay aspects, including content, organization, vocabulary, language use and conventions.

Theoretical Background

Teaching writing is considered to be one of the challenging tasks for EFL instructors who have many approaches and strategies to choose from to design their writing class. BaniYounes and Albalawi (2015) stressed the importance of practice to improve the key writing skills, including paragraph organization, language use and mechanics as these areas are considered to be essential ones in writing in EFL.

Monaghan (2007) assured that teaching writing should follow methods that impart necessary knowledge on conventions of written discourse and the basics of grammar and syntax since the aim of teaching writing is to steer students to the way and attain the highest ability to communicate in words.

Nunan (2003) pointed out that writing is a skill that requires physical and mental acts which help in creating ideas, thinking about how to express them in organized statements and paragraphs which the reader can comprehend easily.

As for the significance of writing in EFL, Rao (2007) indicated that writing could play a key role in stimulating learners' thinking, organizing their thoughts, and improving their skills to criticize, analyze and summarize.

Writing could be categorized into two aspects, creative writing and functional writing. Creative writing is a piece of writing which uses distinguished literary styles and focuses on imaginative and symbolic content, such as writing stories, poems, essays, and novels. Functional writing (technical writing), on the other hand, could be viewed as a piece of writing which focuses on factual and straight forward content. It aims at conveying a certain message to a specific audience, such as writing medical and scientific reports and instructions.

Expository essay writing is that kind which aims at providing a crystal-clear explanation of a certain topic, process, or ideas. An expository essay begins with an introduction, which briefly introduces the topic and provides a thesis statement that indicates what the writer is supposed to discuss and explain in the body paragraphs. Each body paragraph should start with a topic sentence, followed by supporting details and a concluding sentence. The third part of the expository essay is the conclusion, which summarizes the main ideas and provides the reader with an overview of the key points discussed in the body paragraphs.

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With regard to the sudden shift to online learning tools, the outbreak of COVID-19 pandemic was a challenge for universities worldwide as it compelled them to switch to online teaching and learning mode overnight (Dhawan 2020).

In an attempt to limit the spread of COVID-19, many educational institutions worldwide decided to stop in-person teaching and move to the distance type of learning temporarily. The UNESCO reported that at the end of April 2020, 186 countries shut down their educational institutions, representing 74% of total enrolled learners on the planet (Di Pietro, Biagi, Costa, Karpiński and Mazza 2020).

Online learning has become a key component in the educational field as it includes many privileges and implications in education. Online learning is defined as students' ability to comprehend and monitor their learning by implementing a range of cognitive, metacognitive and affective strategies to accomplish online learning goals (Kuama and Intharaksa 2016).

White (2003, 18-19) pointed out that "the online learning via networked computers has been available since the early 1990s, coinciding with increased access to hardware and to the internet. Early institutional providers of online language courses included the Open University (OU) in the United Kingdom, which offered their first online language course (in French) in 1995".

The online learning was at first oriented for the university level, but as technology developed and computers with software proposed over the past few decades, many new delivery models and formats for learning a language online were established, including formal online courses, virtual worlds, open online courses, and mobile applications. Such developments were used at different educational levels (Hockly 2015).

Blake (2011) affirmed that the online language learning has several types, including Web-facilitated, hybrid, or fully virtual classes and that such models could be used effectively in different computer-assisted language learning (CALL) areas.

Problem-Based Learning (PBL)

Problem-based approaches have been addressed for long by specialists in the field of language teaching and learning. Psychological research and theory proposes that by teaching learners via the experience of solving problems, they can master the strategies of thinking and content (Cindy 2004).

The PBL is a learner-centered strategy that stimulates individuals to overcome a certain challenging situation through trying different solutions, on the contrary of most traditional teaching methods through which the teacher presents facts and information in a direct way.

Online PBL is an example of an instructional method that motivates students to learn through web-based materials that includ text, simulations, videos, demonstrations and resources, chats, whiteboards and environments that have been purpose built for problem-based learning (Savin-Baden and Wilkie 2006).

As for the implementation of problem solving in instruction, research shows that problem solving has been firstly introduced to education since ancient times, specifically in teaching mathematics and

science at schools and universities. However, problem solving was not widely applied to teacher training, and foreign language teaching (Doghonadze and Gorgiladze 2008).

Gorgiladze (2005) believes that problem solving in teaching a foreign language aims to involve students in the formulation of grammatical rules and elicitation of vocabulary meanings from the given examples. The strategy could also help EFL learners overcome independently the language problems and discuss non-professional, everyday life problems through communication in the foreign language.

In PBL classrooms, the responsibilities of both teachers and learners are different from those in traditional types of learning. Mathews (2007) pointed out that in problem-based classrooms, the instructor acts as a facilitator of tasks which learners perform. The instructor does not directly present information. Instead, he provides the learners with challenging situations to work on, guides them to identify and access the materials and equipment necessary to tackle the problems and overcome the challenging situations, provides necessary feedback and support during the problem solving process, and assesses their participation, involvement and products.

The role of the instructors in the PBL learning process starts with pre-teaching and continues till the stage of evaluating students' performance throughout the project and covers the following:
-Introducing the problem and the language needed to work on.
- Providing resources and linguistic clues.
- Observing and supporting the learners while working to work on the problem.
- Following up and assessing progress.
As for the learner's role in problem-based learning, it could be summarized as follows:
- Identifying the problem.
- Detecting the knowns and unknowns.
- Creating possible solutions.
- Taking consequences into consideration besides choosing the most viable solution (Mathews 2007).

Based on what has been mentioned, it is believed that the use of problem solving alongside the online mode could play a positive role in developing EFL students' language skills in general, and essay writing in particular due to the crucial role of both strategies in motivating EFL learners to take part effectively in the educational process and shift their role to become active elements in the teaching and learning process.

Related Studies

Aouine and Sadek (2020) investigated EFL instructors' views regarding the use of problem solving. The study sample comprised 50 Algerian teachers to whom a questionnaire was distributed. The New Taxonomy of Educational Objectives (NTEO) was implemented as the analytical framework. The results indicated that 96% of EFL teachers viewed problem solving is a key component of instruction. The findings also showed that implementing problem solving in the classroom could help develop students' cognitive abilities, their autonomy, and teaching practices.

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Allala and Al-Jamal (2019) studied the influence of blended learning on eighth grade EFL students' performance in grammar and writing. The study sample comprised 97 participants who were randomly divided into four groups: A, B, D and E. The students of the two groups A and B learned writing using the blended learning instructional program while the other two groups learned in light of the guidelines of the Teacher's Book. The results unveiled that there were statistically significant differences at ($\alpha = 0.05$) in the writing performance of eighth grade students in favor of blended learning groups.

Indrawati and Ayob (2018) examined the impact of the contextual approach on students' writing achievement and quality. The study sample comprised 108 tenth grade students. The findings indicated that the writing quality of the students who were taught using the contextual approach was better than the writing quality produced by those who were taught throughthe inductive and deductive approach.

Irwanto, Saputro, Rohaeti, and Prodjosantoso (2018) studied the impact of Process-Oriented Guided-Inquiry Learning (POGIL) on Malaysian university students' problem solving skills. The study sample comprised 48 participants. The findings revealed the positive effect of the (POGIL) on students' problem solving skills, mainly in methodological, writing, speaking, and thinking skills.

Ibnian (2017) examined the difficulties that university students encounter while writing in English as a Foreign Language (EFL). The sample comprised 82 students majoring in English from the World Islamic Sciences and Education University. The findings showed that "lack of ideas" ranked first among difficulties that Jordanian students encountered in writing class, followed by "the incorrect use of mechanics of writing" and "lack of clear assessment instruments and marking schemes" respectively.

Al-Zyoud, Al Jamal and Baniabdelrahman (2017) investigated the impact of mind mapping strategy on improving Jordanian students' writing performance. The study sample consisted of 40 eleventh grade students chosen from Al Hashymiah School for Boys in Zarqa Governorate in Jordan. The experimental group was taught using mind-mapping strategy while the other group was instructed via the conventional teaching method included in the Teacher's Book. The results revealed statistically significant differences at ($\alpha \leq 0.05$) between the two mean scores of experimental and control groups in the post- test in favor of experimental group.

Koura and Zahran (2017) examined the effect of mind habits strategies on Egyptian students' writing skills. The study sample comprised 33 EFL students from Dreen Preparatory School in Dakahlia Governorate. The results unveiled that the experimental group, which was taught according to the mind habits strategies, outperformed the control group with regard to writing skills.

Ariyanti and Fitriana (2017) studied challenges encountered by Indonesian EFL students in essay writing. The sample of the study consisted of 33 students from Widya Gama Mahakam University. The results indicated that Indonesian EFL students encounter some writing difficulties in grammatical, cohesion and coherence terms

Obeiah and Bataineh (2016) studied the impact of portfolio evaluation on writing performance of Jordanian EFL tenth graderson the sub-skills of word choice, conventions, focus, development, and organization. The study sample comprised 40 students from girls' public schools in the North-Eastern Badia Directorate of Education. The results showed that the portfolio group outperformed the

conventionally-instructed counterpart in writing performance in terms of word choice, conventions, focus, development, and organization.

Ababneh and Lababneh (2013) examined the impact of using the internet on EFL elementary school students' writing. The study sample consisted of 30 students from Irbid private schools. The findings showed that the use of the internet positively affected the overall performance of the students, particularly in vocabulary use and paragraph development aspects.

Al-Abed Al-Haq and Al-Sobh (2010) investigated the impact of a web-based writing instructional EFL program on the performance of Jordanian secondary students. The sample of the study comprised 122 male and female eleventh grade students from schools of Irbid Second Directorate of Education. The findingsindicated statistically significant differences at (α = 0.05) in the students' mean scores of the overall English writing achievement post-test in favor of the experimental group and that female students outperformed male students.

Tsou (2008) studied the impact of a web-based writing program in college English writing classes of the National Cheng Kung University in Taiwan on students' writing skills. The study sample comprised 49 university students randomly divided into experimental and control groups. The results showed that students of the experimental group who used the web-based writing program outperformed the regular writing group students in most writing aspects including content, development and organization.

Omari (2005) investigated the impact of the process approach to writing on the achievement of Jordanian tenth graders in EFL. The sample of the study consisted of two sections; the experimental section was taught using the process approach to writing, while the control section was taught using the traditional approach. The findings revealed that there was a positive effect of the process writing approach on the achievement of the experimental group, mainly in message, length, and syntax aspects.

Commentary on previous studies

The impact of online education and teaching strategies, including problem solving on the acquisition of English language was focal for many researchers in the fields of education and applied linguistics as seen in the studies conducted by Aouine and Sadek (2020) and Irwanto, Saputro, Rohaeti, and Prodjosantoso (2018), who investigated EFL teachers' views and the implementation of problem solving in education and means to improve learners' problem solving skills in different fields including writing in EFL.

On the other hand, studies of Allala and Al-Jamal (2019), Indrawati and Ayob, (2018), Al-Zyoud, Al Jamal and Baniabdelrahman (2017), Obeiah and Bataineh (2016) and Ababneh and Lababneh (2013) investigated the effect of using blended learning, contextual approach, mind-mapping, portfolio assessment, and the internet on developing EFL learners' writing skills.

Besides, some other studies, including Ibnian (2017) and Ariyanti and Fitriana (2017) examined the problems EFL students encountered in writing. Such studies proposed some solutions to help EFL learners overcome writing difficulties through using new teaching strategies that could help learners generate new ideas and improve their writing in EFL.

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The previous studies helped the researcher to shed light on some aspects concerning the use of online mode in foreign language teaching and learning as well as the different strategies and techniques used to help EFL learners improve their performance in different language skills, including writing. In addition, the previous studies helped the researcher in designing and preparing tools of the current study, namely the expository essay writing skills' checklist and the pre-post expository essay writing test.

The current study is different from the previously mentioned ones as it investigates the effect of online PBL activities on university EFL students' expository essay writing skills. To the researcher's best knowledge; limited studies have been conducted in the field of language teaching and learning to address strategies and techniques to improve university EFL students' essay writing skills in general and expository essay writing in particular. Consequently, this study is an attempt to investigate the impact of implementing proposed online PBL activities on the writing skills of university EFL students in general and expository essay writing in particular aiming at examining new techniques and strategies that could help improve EFL learners' skills, mainly in expository essay writing field. Thus, the findings of this study might bridge this gap in the relevant literature.

Methodology and Procedures

The current study followed the quasi-experimental design; two groups from the students enrolled in "Writing 2" course over the first semester of 2020/2021 academic year participated in the study. The students were assigned to two groups (control and experimental). The experimental group received instruction using proposed online PBL activities whereas the other group was taught online via traditional strategies of writing. A pre/post expository essay writing test was applied to the two groups before and after the experiment (the use of online problem-based learning activities). Once the data for the pre/post-test was collected, t-test was conducted to detect whether there were statistically significant differences between the mean scores of the two groups in the post expository essay writing test.

Participants

Seventy four EFL students enrolled in "Writing 2" at the World Islamic Sciences and Education University participated in this study and they were randomly divided into experimental and control groups. The former comprised 38 students, while the latter consisted of 36.

The two groups were studying the same course, writing 2, a departmental compulsory course. The textbook used was "Academic Writing: from paragraph to essay" by Dorothy E Zemach Lisa A Rumisek.

Instruments

The researcher, to achieve objectives of the study, has developed the following instruments:

1- A checklist to specify the writing skills that university students need in expository essay writing in EFL.

2- A pre-post expository essay writing test toinvestigate the impact of using proposed online PBL activities on developing university EFL students' expository essay writing skills.

The Expository Essay Checklist

After reviewing the relevant literature on writing in EFL in general and essay writing in particular,the researcher designed an initial form of the expository essay checklist that comprised nine skills. The checklist was submitted to eight EFL instructors to identify the key skills that EFL students need in expository essay writing. The experts suggested merging some skills, such as spelling, punctuation, capitalization and grammar to be viewed as one aspect named conventions. The final form of the checklist included five areas as follows:

1- Content (writing logical and relevant ideas)

2- Organization (having introduction, body and conclusion)

3- Vocabulary (appropriate word choice to convey message properly and clearly)

4. Language use (ability to convey arguments with clarity)

5- Conventions (ability to show understating of standard writing conventions such as, spelling, punctuation, capitalization, grammar, usage, paragraphing)

The Expository Essay Writing Test

Having outlined the related literature in essay writing, the researcher prepared an initial form of the expository essay writing test. The test aimed to reveal the level of both groups in expository essay writing in EFL before and after the implementation of the proposed online problem-based learning activities, which were applied to the experimental group.

The test included a question that asks the students to write an essay of four paragraphs on one topic. The students were given the opportunity to choose among three topics, including poverty and its consequences at different levels, unemployment and solutions to face this serious problem, and climate change and its causes.

Validity of the Test

The test, in its initial form, was given to eight university instructors specialized in TEFL so as to verify its validity. The experts were requested to give their opinions on the suitability of the test.

The jury provided some modifications on the wording of the instructions of the test and its time. They proposed 45 minutes for the whole test. They also suggested providing the students with an opportunity to select one topic out of three and limiting the number of paragraphs in the essays to four. The test was modified according to the jury's recommendations and suggestions. (Appendix 1)

Reliability of the Test

To achieve the internal consistency of the test, it was administered to 21 students other than those who participated in the current study. After 14 days, the students were retested. The reliability coefficient stability was calculated using Pearson Correlation Formula. It was 0.83, which refers that the test is reliable.

To achieve scoring reliability, the test was marked by the researcher and an EFL instructor from WISE University, who has been briefed by the researcher before starting to mark students' essay on how to use the scoring rubric that covers five aspects, namely content, organization, vocabulary, language use and conventions. The reliability coefficient was calculated and it was found to be 0.87, which is considered suitable for the purpose of the current study.

Treatment

The proposed online problem-based learning activities used in this study represented six topics included in the syllabus of the "Writing 2" as presented in table (1). The researcher, to achieve the purpose of the study, has prepared the material and designed the problems, making use of the technical advantages provided by various online resources.

Table 1: The online problem-based activities used in the study

No.	Topic	Nature of the Proposed Problem
1	Smoking	Missing words and phrases
2	Pollution	Scrambled sentences and paragraphs
3	Road accidents	Disordered pictures with keywords
4	Water scarcity	Missing body paragraphs
5	Internet addiction	Missing introduction/ conclusion
6	COVID-19	Wordless pictures

The problem-solving strategy in this study was addressed at two levels. Firstly, the topics themselves covered serious problems affecting the community, including smoking, pollution, road accidents, water scarcity, internet addition, and COVID-19. Secondly, the nature of the activities designed in this study reflected some problematic situations, such as missing words and phrases, scrambled sentences and paragraphs, disordered pictures with keywords, missing body paragraphs, missing introduction/ conclusion, and having wordless pictures.

Both groups received instruction over that semester (first semester 2020/2021) through online mode (Microsoft Teams) due to the coronavirus (COVID-19) outbreak and in line with the government's decision to shift to online mode to alleviate consequences of coronavirus, as the new developments forced all educational institutions in Jordan to shift their educational programs from classroom-based education to online modes such as Moodle, Microsoft teams and Zoom platforms.

Microsoft Teams, which has been adopted as a platform by most of WISE University instructors since the shift to online modes in March, 2020, is a cloud app digital hub that brings conversations, meetings, files and apps together in one Learning Management System. Teams' policies provide the ability to control the options available for specific users or groups of users. Policies can be applied to define who should be allowed to use private chat, private calling, meeting scheduling, content types that can be shared, and more (Microsoft, 2018).

The instructor, at the onset of each meeting with the experimental group, asked the students to identify the problem, gather information about it and propose solutions to solve it. During this stage, the students were asked to send written comments, solutions and remarks on the topics by using the "chat box" of Microsoft Teams or to use the "raise hand" icon and send voice messages. (Appendix 2)

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Moving to the next stage of the writing process, the students were asked to make use of the ideas generated during that previous stage to write a draft about the topic, revise it in light of agreed-upon writing norms, and then move to the editing stage and write an essay of four paragraphs on the topic.

As for the control group, it was taught in a traditional method during which the students were provided with the topics and some key ideas and then asked to write essays on the topics.

During the six-week experiment, the students were asked to write one essay weekly. After the experiment, they were retested to measure the impact of using the proposed online problem-based learning activities on their performance in expository essay writing. (Appendix 3)

The pre-posttest essays were scored in light of availability, clarity and appropriateness of the expository writing skills identified in this study including content, organization, vocabulary, language use and conventions by using a 6-point Likert scale, ranging from 1 (very poor) to 6 (excellent).

Results and Discussion

- **To answer the first question: "What expository essay writing skills do university EFL students need?"**, the researcher outlined a number of studies on writing in EFL in general and essay writing in particular, then designed the initial form of the expository essay checklist consisting of nine skills covering different areas in essay writing genre. The proposed checklist was submitted to eight EFL instructors to identify the key skills that EFL students need in expository essay writing. The final form of the checklist included five key skills, including content, organization, vocabulary, language use, and conventions.

- **To answer the second research question: "What is the impact of proposed online problem-based learning activities on developing university EFL students' expository essay writing skills?"**

The pre/post-test mean scores and standard deviations of the two groups were computed as presented in table (2).

Table 2: Means and Standard Deviations of pre-post test

Group	M	Std. Dev.	N
Experimental	Pre: 17.35	Pre: 6.88	38
	Post: 22.85	Post: 8.38	
Control	Pre: 18.25	Pre: 6.32	36
	Post: 19.75	Post: 6.56	

Table (2) reveals a difference between the mean scores of the two groups; the mean of the pre-test scores of the control group is 18.25 whereasthat of the post-test is 19.75. In addition, it unveils that the mean of the pre-test scores of the experimental group is 17.35 compared to 22.85 in the post-test.

Table 3: Findings of T-test Independent Samples

Group	No. of Students	M	SD	T-value	D.F.	Sig.
Control	36	19.75	6.56	2.485	72	0,00
Experimental	38	22.85	8.38			

The statistical analysis, presented in table (3) shows that there is a statistically significant difference at (α=0.05) between the control and experimental groups in the post-test in favor of the latter group.

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Such results could be attributed to the positive impact of the proposed online problem-based learning activities on developing the expository essay writing skills of the experimental group's participants. The researcher believes that the online problem-based learning activities stimulated the participants to work in pairs or small groups to find solutions for problematic situations they faced while writing the complete essays about the topics provided. The students, for instance, worked to re-order the ideas in a logical way to compose well-structured essays. The online problem-based learning activities also put the participants in a challenge with themselves till they prove their skills and abilities in solving the problems and finding the missing words/ phrases to complete the meaningful sentences and then to use them later to write well-organized essays. These results are in harmony with Lestari (2018) who affirmed the need to create a challenging atmosphere in writing classes so as to attract the students and engage them in the learning process.

Moreover, the online problem-based learning activities inspired the learners to search for solutions, describe the pictures shown online by the instructor share ideas and generate new ideas about the topics. The implementation of such a strategy helped the students get rid of the traditional learning environment in writing during which students were provided with titles and key ideas about a certain topic and be asked to write an essay about that topic. Such results agree with findings of Wilder and Mongillo (2007) and Blair (2003) who stressed the importance of technology in sharing ideas as it facilitated interaction among individuals and provided them with different information sources.

Furthermore, the researcher thinks that the use of online PBL activities is in line with the Process Approach to writing, which considers writing as a process based on five stages: prewriting (brainstorming), drafting, revising, editing, and publishing, compared to its counterpart, the Product Approach to writing, which focuses on the final product regardless of the different stages of the writing process.

It can be concluded that the use of online PBL activities enabled the students to identify the stages of the writing process, a fact that positively affected their final products. The students exchanged ideas during the prewriting (brainstorming) stage, wrote down their drafts (drafting), revised them by adding, modifying, replacing, changing, or deleting some information (revising) and finally they wrote the final versions of their essays (editing) to be shared in a later stage (publishing). Such findings are in line with the results of (Almekhlafy 2020; Hussein 2017; Artino, and Jones 2012 and Yahiaoui 2011) which stressed the crucial role of the problem solving strategy in teaching writing and helping EFL learners improve their writing skills. The results are also in harmony with Omari (2005) who emphasized the importance of the process approach to writing in helping EFL learners improve their writing skills.

As for implications of the results of the current study in TEFL field, it can be inferred that the use of PBL activities has motivated the students to participate effectively in the learning process by being active participants. Teachers' role is also switched from 'sage on the stage to guide on the side.'

The use of online PBL activities in writing contributed to creating challenging and problematic situations, a fact that pushed the students to work hard to overcome such challenges and prove their skills.

Such results are in line with Kadhim (2014) who affirmed the positive impact of the problem-based learning activities in creating motivating environment in EFL classroom.

Besides, the results revealed that the online environment has played a crucial role in helping EFL students improve their language skills, including writing. In this regard, Blair (2003) indicated that technology could help ease the writing process since it enables the students to share their writing and get feedback about it, a fact that could help them improve their writing abilities.

Furthermore, the use of online PBL activities in composition classes paved the way for generating creative ideas. It is assumed that the online mode has provided the learners with an opportunity to come up with unique ideas, since the way the problems were presented attracted the participants to take part effectively in the learning process and generate creative solutions to resolve the problematic situations. It is believed that the use of colors, movements, sound effects, and images encouraged the students to activate their previous knowledge, search for suitable solutions, link ideas together, and expand ideas by building upon each other's ideas. These results agree with that of Kuama and Intharaksa (2016) and Artino and Jones (2012) which revealed that employing effective online learning strategies could play a key role in academic achievement of learners, and that such strategies contribute to accomplishing effective and fast learning.

In light of the findings, it could be drawn that the obvious progress of the learners in expository essay writing in EFL resulted from the following factors:

- Firstly, motivating learners to follow a new strategy in writing other than the conventional ways has created a motivating and flexible environment. In this environment, students can try, examine and choose different options to firmly face the challenging situations and solve the problems and then start writing about the topics.

-Secondly, the proposed online PBL activities have provided the learners with an opportunity to prove their skills and be self-dependent through implementing their intelligences and cognitive skills rather than spoon feeding. The students in such an environment were motivated to learn using different recent sources. Such findings are in line with Savin-Baden and Wilkie (2006) who stressed that PBL can provide students with greater autonomy to learn for themselves and opportunities to explore solutions and act as key components in the learning process.

-Thirdly, using different online problem-based learning activities could play an essential role in stimulating EFL students and transferring them to active participants. Thus, it is natural to achieve such positive outcomes since the proposed online problem-based learning activities enhances appetite to work harder to identify problems, gather information about them, generate creative ideas and solutions and start writing about the topics meaningfully.

- Fourthly, the researcher thinks that using different PBL tasks has contributed to engaging students in active learning as they were exposed to real-life challenges and problems, a fact that motivated them to think deeply, discuss, and build upon each other's ideas to find solutions and address such challenges. It is believed that the use of such activities could sharpen students' creativity, critical thinking and communication skills. Such results are in line with findings of Mathews (2007) who

stressed that focusing on real-world issues and problems could lead to meaningful and authentic interactions among students.

Conclusion

The findings of the study showed that the use of proposed online PBL activities has positively affected university EFL students' expository essay writing in different aspects including content, organization, vocabulary, language use, and conventions. The results showed that the experimental group outperformed the control one as the findings unveiled that there was a statistically significant difference at (α=0.05) between the two groups in the post expository essay writing test in favor of the experimental group that was taught via proposed online PBL activities.

Recommendations:

In light of the results, the following recommendations are put forth:

1-EFL instructors are invited to adopt new strategies and techniques, including problem solving and online sources while teaching writing in general and essay writing in particular. Such strategies could help learners organize their thoughts, exchange ideas and activate their previous knowledge, a fact that would positively enhance their performance in different language skills, including writing.

2-EFL instructors are encouraged to take the Process Approach to Writing into account while teaching writing. They need to focus on the different stages of the writing process rather than the final product, since the different stages of the writing process could help EFL learners generate new ideas, revise their writing and come up with a well-organized piece of writing.

3-The Ministry of Higher Education, universities and all willing authorities should provide universities and academic institutions with technical support needed to establish an appropriate infrastructure required to implement the online learning process successfully.

4-Researchers in TEFL field are invited to conduct further studies on the use of online PBL activities in teaching different language skills, including reading, speaking and listening.

The Impact of Proposed Online Problem-Based Learning Activities on Developing University EFL Students' Expository Essay Writing

أثر أنشطة تعَلُم إلكترونية مقترحة قائمة على حل المشكلات على تطوير كتابة المقال التوضيحي لدى طلبة اللغة الإنجليزيَة كلغة أجنبية

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الملخص

هدفت الدراسة الحالية إلى التحقق من أثر أنشطة تعَلُم إلكترونية مقترحة قائمة على حل المشكلات على تطوير كتابة المقال التوضيحي لدى طلبة اللغة الإنجليزيَة كلغة أجنبية، حيث تكونت عينة الدراسة من 74 طالباً وطالبة يدرسون مساق "الكتابة 2" في جامعة العلوم الإسلاميّة العالميّة في عمان خلال الفصل الدراسي الأول 2021/2020. وقد تم تقسيم الطلبة عشوائياً إلى مجموعتين تجريبية وضابطة. ولتحقيق الغرض من الدراسة، صمم الباحث قائمة مقترحة لتحديد المهارات التي يحتاجها الطلبة لكتابة المقال التوضيحي، وكذلك اختبار المقال التوضيحي الذي طُبق قبلياً وبعدياً على عينة الدراسة للكشف عن أثر استخدام أنشطة التعَلُم الإلكترونية المقترحة القائمة على حل المشكلات على تطوير كتابة المقال التوضيحي لدى الطلبة، وأظهرت نتائج الدراسة وجود فروق ذات دلالة إحصائية عند مستوى (α=0.05) بين المجموعتين في اختبار كتابة المقال التوضيحي لصالح المجموعة التجريبية التي تم تدريسها باستخدام أنشطة التعَلُم الإلكترونية المقترحة القائمة على حل المشكلات. وقدمت الدراسة عدداً من الاقتراحات والتوصيات ذات الصلة بموضوع البحث.

الكلماتالمفتاحية: الأنشطة القائمة على حل المشكلات، اللغة ا لإنجليزيَة كلغة أجنبية، المقال التوضيحي.

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Appendix 1

Expository Essay Writing Test

Student's Name: Number:

Date: Time: 45 minutes

Write an essay of four paragraphs on **one** of the following topics:

- Poverty and its consequences at different levels.

- Unemployment and solutions to face this serious problem.

- Climate Change and its causes.

Appendix 2

Sample Images of Students' Interactions (Microsoft Teams' Chat Box) and the Teaching Materials
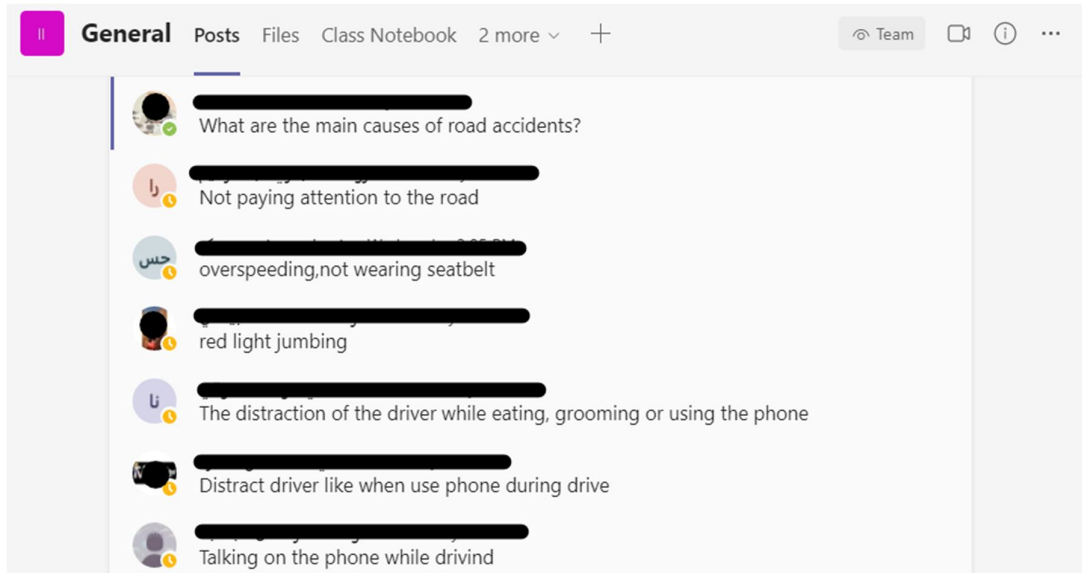
- An Example of a Wordless Picture Used by the Instructor during the Pre-writing Stage
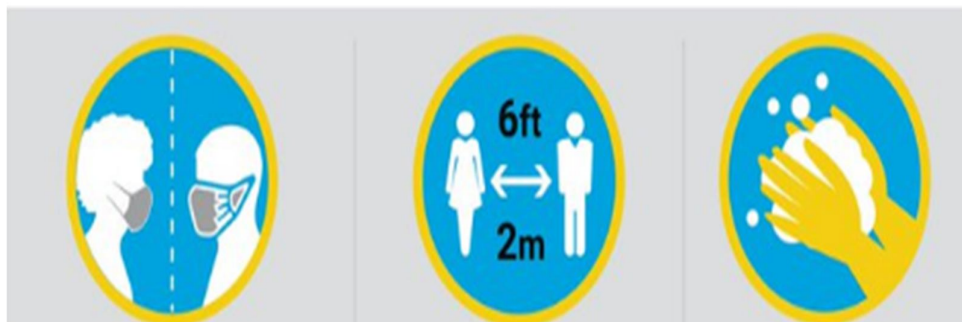
Appendix 3

Sample Images of the Experimental Group Students' Essays

Causes of Climate Change

The earth climates nowadays is changing very rapidly. These changes significantly affect our lives. So, what is the climate change? climate change is the seasonal changes for a long period of time in the world. actually, there are two main causes of climate changes, natural causes and human activities.

Natural causes have influenced the earth's climates, such as volcanic eruptions, ocean current. and the earth's orbital changes, the eruptions of volcanos cause a cooling effect on the earth. Besides, the ocean current is one of the natural cause that affecting climate changes, that because the ocean is the major component of the climate system, and there are many other natural causes that lead to climate change.

Human activities, many people moved from rural areas to cities, in addition, the increase in the rate of people using modern technologies, cars, and many machines that work by combustion of fuel and all this affects the atmosphere, which affects the climate and leads to its change, therefore, everyone should reduce the use of fuel, which negatively affects the climate.

Natural causes and human activities are among the biggest factors that affect the climate, and these factors lead to significant and noticeable climate change, so, we must take them into consideration, and seek solutions to these problems.

Solutions to the Unemployment Problems

Unemployment is one of the most serious problems facing the world and if we can't find solutions to it we will suffer from poverty so there are some solutions that will reduce the unemployment rate like we can build many centers for young people and facilitating investments in countries.

Some countries build many centers for young people because it has many benefits to reduce the unemployment rate like it helps young people to find work by teaching them some trades that help them find work quickly which leads to a reduction in the unemployment rate in addition these centers help them to find jobs abroad so this leads to the reduction of unemployment and the creation of job opportunities for all.

Some countries are working to attract investors and facilitate their transactions because of their many benefits in country like the presence of a lot of investors in the country helps to build many companies and these companies are working to find job opportunities for people and this helps to reduce the unemployment rate also the government should encourage investors to attract local workers especially young people because this help to reduce the unemployment rate so all these can help to reduce unemployment rate.

In conclusion, building centers and facilitating investment in the country helps people to find a job and reduce unemployment.