

## The Effect of A Problem Based Learning Approach (PBL) on EFL Students' Descriptive Writing Performance

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## ABSTRACT

The current study has two main objectives :to investigate the effectiveness of problem-based learning (PBL)approach on EFL students' descriptive writing ability, and to explorefind out students' attitudes toward implementing PBL approach in class while learning how to write a descriptive paragraph in English. Eighty students from Misr University for Science and Technology (MUST) participate in this study. The participant were devided into experemtal (40 students) and control group (40 students). The research instruments included pre/post writing tests and a questionnaire. The data were analyzed. The findings show that there was a significant difference between the mean scores of posttest of the experimental group and that of the control group. In addition, regarding the questionnaire results ,students show positive attitudes toward learning in PBL approach as it motivated them and they became more passionate about the process of developing descriptive text writing skills.

## Keywords:

Writing skills/ Descriptive Writing/ Problem based learning (PBL)

أثر استخدام مدخل قائم على حل المشكلات لتنمية أداء الطلاب فى الكتابه الوصفيه باللغه الانجليزيه كلغه اجنبيه .  
ملخص البحث:

تهدف الدراسه الحاليه الى تنميه مهاره الكتابه الوصفيه لطلاب كليه اللغات والترجمه بجامعة مصر للعلوم والتكنولوجيا بواسطه تطبيق مدخل التعلم القائم على حل المشكلات .تكونت عينه الدراسه من ٨٠ طالب تم تقسيمهم بشكل عشوائى (٤٠ طالب ) مجموعته تجريبية و (٤٠ طالب ) مجموعته ضابطه تكونت ادوات الدراسه من الأتى :اختبار لقياس اداء الطلاب فى الكتابه الوصفيه واستبيان لقياس توجهات الطلاب وارانهم تجاه التعلم القائم على حل المشكلات استغرقت الدراسه ثلاثه اشهر ثم تم تجميع البيانات ومعالجتها احصائيا و اشارت النتائج الى وجود فرق دال احصائيا بين متوسطى درجات طلاب المجموعه التجريبية وطلاب المجموعه الضابطه فى التطبيق البعدى فى اختبار الكتابه الوصفيه لصالح المجموعه التجريبية.كما أكدت نتائج الاستبيان على واوصت النتائج باستخدام طريقه التعلم القائم على حل المشكلات فى تحسين التعبير الكتابى بشكل عام والوصفى بشكل خاص لدى الطلاب فى المرحله الجامعيه .

كلمات مفتاحيه :

مهاره الكتاب/ التعبير الكتابى الوصفى /التعلم القائم على حل المشكلات

## Introduction

Learning new language is something challenging for EFL Learners. EFL students not only have to think of the way to say something and select words but also of how to develop ideas. To combine sentence and to organize paragraph by paragraph. ( Boardman, Cythia A. Frydenberg, 2002)

With the quick progress in education, many approaches and methods of teaching have emerged. With a dissatisfaction with regular teaching methods and a desire to find more effective teaching approaches. The problem-Based Learning (PBL) appeared to re-examine the entire teaching / learning process, It effectively turned the process on its head. New methods of presenting information and assessing knowledge acquisition have also been created.

According to Savery (2006:12), "PBL is an instructional (and curricular) learner-centered approach that empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a solution to a defined problem".

PBL is the divergence between the real learning condition and what expected. It concentrates on particular problem that motivates learners to gather data in order to find a solution for. In the PBL approach, there are many activities include a problem presentation, data collection, reflection, using reason and logic, analysis and evaluation. (Mergendoller et al., 2006). The following considerations may be used by the teacher to identify the problem: 1) Inadequate performance. 2) A situation that has to be addressed or improved. 3) Using new methods and think untaditionally . 4) Check the reliability of your source while gathering information.

Meanwhile, according to Keiziah (2010: 126), PBL is a teaching approach that concentrates on learning by solving definite problems addressed by teachers. In accordance with this statement. In other words Simone (2014: 18) explained that in PBL, students work collaboratively to analyse complicated problems and independently to resume problem solving.

Duch, Groh and Allen (2001) describe Problem based learning as a teaching approach that motivate students and develop students' high level of thinking skills. Students can analyze data they gathered and think critically, evaluate and solve problems. While implementing pbl in classroom, students should cooperate in order to solve a problem and use gathered data and intellectual skills to become a problem solver. Hung, Jonassen, and Liu (2008) defined problem based learning as " an instructional method that initiates students' learning by creating a need to solve an authentic problem."

In order to implement problem based learning approach in EFL classes, teacher should concentrate on assessment, create a cooperative learning atmosphere and

use intellectual skills (Heuchemer, S., Martins, E. & Szczyrba, B ,2020). Problem-based learning allows students to examine what they already know, find out what you need to learn (Harland,2002). In PBL, students work in groups to explore their ideas, information and how they think and how they think and feel about what they are learning. They are responsible for their own learning as well as basic skills while assisting one another Therefore, students can develop their writing skills.

As mentioned on the description above, it is clear that in PBL, the teacher prepare all students to be a life-long learners. There are some primary characteristics of PBL proposed by Barrows in Savery (2006: 12) are: “a. Students must have the responsibility for their own learning. b. The problem simulations used in problem-based learning must be ill-structured and allow for free inquiry. c. Learning should be integrated from a wide range of disciplines or subjects”.

Taking into consideration the explanation above, writing is very critical for language learners. Regarding the descriptive writing, instructors should train their students not only on how to generate and organise their ideas in writing, but also on how to use features of writing. Paragraph structure (mechanic), sentence structure, adjective expression, transition words. In the current research, The researcher train her students how to write a descriptive writing with all features as mentioned above in a pbl classes

Statement of the problem

In Egypt, EFL teacher use regular method in teaching writing skills, Therefore, almost all students are not interested in writing activity. Many of them need a long time to generate ideas in English, as they make an Arabic text first, then they translate it into English directly without understanding sentence structure and mechanics. Based on the observation and related studies (Ghuftron, M. A., & Ermawati, S. 2018), (Fikriyah 2015)& Keong and Mohammed 2015, Lin,(2012),(Halimatus,2010 ) and Sojisirikul's (2009) the researcher found that many teachers struggled to manage the class because they had to teach 60 students. Some students did not take the class seriously because they were busy with other activities such as chatting with classmates and operating their laptop or cell phone.

Furthermore, the teacher used regular methods by providing many resources and exercises. Students were bored as a result of the situation. The teacher assigned a writing project but never provided comments to the students. Students were oblivious throughout a writing activity, and they struggled to write a topic sentence. Descriptive writing is a type of text that gives details and information about a particular topic. It is a prose that may describe a place,

animal, person, or others. It is not a report, which describes things, animals, people, or things in general. A descriptive text's social function is to describe people, place or item. This type of writing, in order to be accurate and impressive, needs a unifying idea and supporting details. It should also demonstrate and helps the reader to imagine the whole picture and feel it, which is not a simple task for both teachers and students.

### 3. Research Questions:

To fulfill the objectives of the research, the following questions were addressed:

3.1. What is the effect of problem-based learning (PBL) approach on EFL students' descriptive paragraph writing performance?

3.2. What are EFL students' perceptions towards using problem-based learning approach while learning a descriptive writing?

### 4. Research Hypotheses:

There is a statistically significant difference between the mean score of the experimental group students and those of the control group in descriptive writing of post-test in favor of the experimental group students.

1.2. There is a statistically significant difference between the mean score of the experimental group students and that of the control group in overall performance of writing main features in the posttest in favor of the experimental group students.

### 5. Definition of terms:

#### 5.1. Problem-Based Learning (PBL)

According to Tan (2003) in Rusman (2010: 229) "Problem-based learning (PBL) is an innovation in the learning, because in the PBL will increase students' thinking skill through teamwork process, so the students can empower, exercise, examine, and grow up their thinking skill continuously". Based on the statement, PBL will increase students thinking skill and make the students join the learning actively. PBL requires students to find and solve their problem by themselves. "The students are demanded to know their need, and develop a good communication in their team to get effective and efficient learning condition." (Harper-Marinick, M., 2001). Tan (2009:206) defined pbl as "a learner – centered strategy where real world problems are used as the starting point for the learning process". The operational definition of PBL is an experiential learning in which students solve problems through collaborative inquiry, and self directed learning.

#### 5.2 Descriptive Writing

Barnet and Stubbs"s (1983) defines a descriptive paragraph as "Description represents in words our sensory impressions caught in a moment of time. In much descriptive writing visual imagery dominates."

"Descriptive text is a text which is describes person, place, mood, situation, and etc., it also describes an object that appeal to the sense." (Hornby, A.,1995)

The operational definition of A descriptive writing is a text full of particular adjectives to describe someone or something that attract the readers sense and intrest.

#### 6. Theoretical background

Previous PBL Research in teaching English as a foreign language have shown success of PBL in developing students' performance not only in English language main skills, but also in both critical thinking and problem solving.

In their study, Ghufron, M. A., & Ermawati, S.(2018) made a comparison between cooperative learning and PBL. The findings proved that PBL helped in raising student' motivation, communicatin skills, making the students problem solvers and more confident about their progress in learning English language skills.

In her study, Fikriyah,p.(2015) proved that PBL was helpful approach in developing students' writing performance. Two istruments were used: prepost test and observation checklist.After accomplishing this research, the findings show that there was a significant difference between the mean score of pre/post test in favor of post test .

Keong and Mohammed (2015), in their research, they implement pbl in classes and proved that the PBL technique enhances participants' English speaking competency while also motivating them to achieve better language performance. Furthermore, the students' pronunciation, vocabulary, fluency, and grammar improved.

Azman and Shine (2012) and Othman, Shah, and Ismail (2013) conducted two quasi-experimental research projects in Malaysia. The first investigates university students' perceptions regarding PBL. The findings show that the participant's motivation and self-confidence are both enhanced. The participants self-reported that problem-solving helped them to learn both language and content knowledge. Furthermore, they became more confident while lerning and enjoy working with the other members of the group. According to Azman and Shine, the participants had a highly positive attitude regarding PBL.

Lin (2012) attributes her pupils' improved the research participants performance in reading comprehension skills. Lin investigated the impact of her students' reading comprehension and views of PBL . The students' vocabulary knowledge improved as a result of PBL training, and their reading skills improve as well. The learning impacts of the researches above showed that the PBL is beneficial in enhancing students' English learning capabilities and inspiring them to improve language performance. PBL has several components as a teaching and learning approach, including a problem, a facilitator, collaboration, and reflection (Hmelo-Silver, 2004).

## 7. Method

### 7.1. Participants

In the current study, the participants were 80 English major students in the First semester of academic year 2021-2022. They were selected randomly. The participant were split into two groups. The control group (40 students )and the exprimental group( problem based learning group).

### 7.2 Teaching and learning problem

The main task was to create an excellent English descriptive paragraph. They were given 100-150 words to compose a descriptive paragraph on any topic.

### 7.3 Teaching materials

Different sets of lessons were used to teach all the participants of the study (Appendix A). The researcher prepared units covered the same themes for both groups. These units covered many topics such as paragraph structure, transitional words, descriptive sentence structure. On the other hand, the researcher prepared Pbl units which covered problem presentation and method to solve this problem and finaly assessment . The researcher, on the other hand, prepared regular units to be taught by the her in a regular way. Finally, she asked her students to write a paragraph. The researcher provided handouts (Appendix B) for both groups to use as learning resources.

### 7.3. The Writing Test Scoring Rubrics:

The researcher created rubrics to assess the performance of the paticipants' in pre/post test. These rubrics were used to evaluate five components of descriptive paragraph writing (see Appendix C).

### 7.4. Instruments

In the current study, the researcher used two different instruments: pre/post descriptive writing tests and a questionnaire to assess the students attitudes towards problem based learning.

#### 7.4.1. Pre / post writing tests

The researcher applied the same test before and after the treatment. The participants were asked to write a paragraph entitled "My favorite place." The researcher asked the research participants in control and experimental groups to write in 60 minutes 100-150 words to compose a descriptive paragraph (see Appendix D).

#### 7.4.2. Questionnaire

The questionnaire distributed to students was in Misr University for Science and Technology (MUST) in order to assess the participants' attitudes towards using PBL. It was adapted from Sojisirikul's (2009) study. In the current study, it was used to get acquainted with students' perceptions of problem-based learning after receiving the treatment. It was divided into two sections. Regarding the first section, it included twenty statements grouped into four categories which focus on the participants' impressions of information they gathered and their performance. To what extent problem based learning lessons were successful. The second section was provided as open-ended questions (see Appendix E). The questionnaire was presented in the style of a five-point Likert scale, 5 means "Strongly Agree," 4 means "Agree," 3 means "Neutral," 2 means "Disagree," and 1 means "Strongly Disagree."

### 8. Research Procedures

#### 9. Data Collection

To verify all the hypotheses, the researcher collected data from the pre/post test and the questionnaire, they were analyzed as shown below.

##### 9.1. Pre/ Post Writing test

The pre/post test of control and experimental groups were evaluated by the researcher and an experienced lecturer to ensure scoring reliability. T-test was used to assess the significant difference of the scores for control and experimental groups and effect size. The researcher and instructor analyzed the reliability in scoring the writing tests of control and experimental groups using Pearson's Correlation for the pretest, it reached 0.769, on the other hand, it reached 0.984 for the posttest.

##### 9.2. Questionnaire about students' attitudes towards PBL

The attitudes of the research participants were categorized into three types of responses: very positive, positive and negative. All responses were gathered and analyzed. The value added to each mean score was in a range of 1.00-2.43, representing students' negative attitudes toward PBL, 2.44-3.87 representing students' positive attitudes, and 3.88-5.00, representing students' very positive attitudes.

### 10. Findings and Discussions

Table 1. Test scores of both control and experimental groups

	N	Group	Mean	S.D.	t-value	df	p-value
Pretest	40	Experimental	10.13	1.88	.420	78	.675
	40	Control	10.25	1.37			
Posttest	40	Experimental	12.85	1.54	3.615	70.80	.000*
	40	Control	10.80	1.35			

The findings in Table 1 show that the mean score of the experimental group (M=12.85) were considerably greater than the mean score of the control group (M=10.80). There was a significant difference between the experimental and control groups (t=3.615). In addition, there is a great significance regarding the impact size value.

In Table 2, it is clear the development of all features of descriptive writing (paragraph structure, sentence structure, using transition words, descriptive expression) of the students who received their lessons with problem based approach (t=12.795). The most developed feature was paragraph structure (t=8.709).

Table 2. Test scores of both control and experimental groups of writing features

Writing Features	Pretest Mean	S.D.	Posttest Mean	S.D.	t-value	df	p-value
Using Transition words	3.50	.441	3.75	.707	5.589	39	.01*
Paragraph structure	1.55	.640	2.85	.662	8.709	39	.01*
Descriptive expression	2.95	.389	3.56	.506	6.904	39	.01*
Sentence structure	1.03	.423	2.65	.483	8.319	39	.01*
Overall Writing Performance	11.12	2.452	12.58	2.856	12.795	39	.01*

Table 2 shows every feature of descriptive paragraph writing

performance of the posttest scores. It is clear that the whole performance of the students (who received their lessons with problem based approach) in the posttest was higher than that of students who received their lessons in a regular and traditional way (t=5.811).

Table 3. The posttest mean scores of writing features of both the experimental and the control group.

Writing features	EXPERMEN TAL		CONTRO L		t-value
	M	S.D.	M	S.D.	
Paragraph structure	3.8	.652	3.68	0.53	2.809
Descriptive expression	3.6	.593	3.25	0.54	2.878
Using Transition words	3.5	.459	3.18	0.48	5.132
Sentence structure	3.7	.802	3.18	0.35	3.987
Total	14.76	1.856	12.77	1.38	5.211

In table 3 , It is clear that using transition words as one of the features

of descriptive paragraph writing performance was found most significantly different (t=5.132). On the other hand, the paragraph structure was the least significantly different (t=2.809).

Regarding the participants' attitudes towards problem-based learning approach, data were collected and analyzed as shown in Table 4. The attitude was positive. The participants of experiemental group were passionate about the process of developing descriptive text writing skills through PBL.

Table 4. Students' perceptions on learning through PBL

Domains	x	S.D.	Responses
Writing improvement	4.5	0.79	Positive attitude
The Efficiency of the problem-based learning units	4.4	0.79	Positive attitude
Self-study	4.4	0.77	Positive attitude
Working in groups	4.4	0.80	Positive Attude
Average	4.45	0.78	Positive

12.

### Conclusion

The study's findings proved that problem based approach (PBL) improved the students descriptive writing performance than students who used regular

techniques. Regarding the questionnaire findings, it is clear that students are more passionate about the process of developing descriptive text writing skills through PBL as it made it easier for students to explore their ideas when creating descriptive paragraphs. PBL as a teaching approach has a considerable effect on developing students' writing abilities on descriptive writing and as a result, it might be one of the most successful approach for teachers while teaching students to write descriptive writing. Some cautions are required when interpreting the findings of this study. Regarding writing features tested vocabulary and mechanics, findings show moderate progress. This modest improvement is because time was not enough while conducting the research. First, future studies should include the number of lectures/ meetings in teaching students how to use PBL. Second, familiarising students with PBL procedures is something that researchers must do as well as the case in the current research, the students may have had no prior experience with PBL so the teacher should guide them through the whole learning process.

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