

**USING PROBLEM BASED LEARNING
TO DEVELOP UNIVERSITY
STUDENTS' WRITING
PERFORMANCE**

Researcher:

Dr. Reem S. R. Abu Rezeq

University Name & City:

Al Azhar University- Gaza

E-mail address:

rezeqreem@hotmail.com

Abstract

The present study aims at developing college students' writing performance in the light of using problem based learning. This study employed the one group experimental design along with mixed research approach incorporating quantitative and qualitative analyses. She carried out a training program that included 115 TEFL students in Al Azhar University in the academic year 2018-2019 in the Gaza strip. The researcher's instruments included a writing performance rubric and a pre/post writing language performance test. During the study, the students received learning their lessons contents through using some problem solving activities which included searching and exploring. The results revealed that the students developed better written performance as they enhanced their problem solving abilities. The researcher recommends the following:

- Incorporating the problem solving approach in all language classroom.
- Choosing topics that appeal to students' interest and background knowledge.
- Presenting materials based on internet search to simulate students' problem solving abilities.
- Participating in oral and written activities as highly appreciated practices of learners.

Keywords: Problem Based Learning & Writing Performance

استخدام التعليم القائم على حل المشكلات لتطوير الاداء الكتابي لدى طلبة الجامعات

الملخص

يهدف البحث الحالي إلى تطوير الأداء الكتابي لدى طلاب اللغة الإنجليزية في جامعة الأزهر بفلسطين في ضوء طريقة حل المشكلات، لتحقيق هدف البحث، تم تصميم الاختبار القبلي والبعدي للأداء الكتابي، ولتحقيق هذا الهدف استخدمت الباحثة عينة تكونت من 115 طالبة. وقد أظهر الاختبار القبلي أن معظم المشاركين لم يكونوا جيدين بما فيه الكفاية في حل المشكلات. لذلك قامت الباحثة بدمج المشاركين في برنامج يستند إلى أنشطة حل المشكلات من البحث والاستقصاء الذي تم تنفيذه في العام الدراسي 2018 - 2019. واستخدمت هذه الدراسة التصميم التجريبي لمجموعة واحدة إلى جانب التحليل الكمي والنوعي وبعد التطبيق، أظهر الاختبار البعدي أن هناك تغيراً واضحاً في أداء الكتابة وقدره الطلاب على التفكير الناقد والقيام بعملية الاستكشاف لاستنباط الفكرة الرئيسية وطرح الأسئلة. كما أشارت نتائج الدراسة إلى فعالية البرنامج في تطوير الأداء اللغوي بشكل عام. مع التركيز على الأداء الكتابي. وفي ضوء هذه النتائج، توصي الباحثة بالآتي:

- دمج مهارات حل المشكلات في مجالات التعليم الأخرى.
- اختيار مواضيع تتماشى مع ميول واهتمامات الطلاب.
- استخدام الانترنت والبحث لتنمية أسلوب حل المشكلات.
- دمج الطلاب بالأنشطة الشفوية والكتابية في آن واحد.

الكلمات المفتاحية: حل المشكلات، الأداء الكتابي

Introduction

It has become clear that education reform in the 21st century should focus on students' performance in all aspects of learning. This elicits to the importance of language performance which is grounded in Hymes (1972), quoted by Newby (2011) refers to the actual use of language. It includes students' responses either in an oral or a written form (Abbott & Wren, 2016). The role of language performance is evident in creating a real-life situation for learner to practice language performance either integration of oral and writing areas. Learners should write and speak about issues that they are familiar with and use communication strategies so as to convey messages to someone else.

However, it might be beneficial to deal with the written aspects in order to make it easier for assessment. At the same time the target functions imply the integration of both oral and written activities such as arguments, questioning, group dynamic activities through the students' preparation of providing evidences, comparing cases, discovering contradictions, criticizing, and asking questions (Harpaz, 2013; Nation and Newton 2009; Rivard and Straw, 2000).

Due to the importance of writing performance, students should be given the opportunities that would develop their writing performance. Therefore, it is important to shed light on some strategies and techniques that may enhance the students' writing performance. The following areas may be included in the problem solving inquiries: developing student-centered approach improving critical thinking, increasing higher order thinking, presenting authentic communication, offering hands-on activities, generating students' questions, giving priority to evidence, explanation, and justification, engaging students in analyzing concrete data for writing task, providing activities that guide learners to generate meaningful questions (Ismail, 2006; Renau, 2016; Graham & Perin, 2007; Hart & Lee, 2003; Lin & Kharrufa, 2014; Duran & Dokme, 2016; NRC, 2000; ElSayed , 2017; Jones , 2009; Ismail, 2006)

The integration of problem solving approach into teaching requires certain features, for example, generating questions, designing experiments, gathering evidence, making claims, and justifying claims. It also includes learning by discovery, learning projects, generating questions, designing experiments, gathering evidence, making claims, and justifying claims. Each of these approaches stresses different parts of what is called "inquiry". The inquiry also varies along a continuum of teacher-directed to student- directed where students should have an opportunity to understand the whole world around deeply through collecting data, solving problems and thinking logically and critically. Thus, the students of the problem based learning classrooms reported being more interested and satisfied regarding the subjects they studied (Kahle et al. 2000; NRC, 2000; Westwood, 2000). Hence, it is beneficial to make use of such features in the present study.

Context of the Problem

Writing performance is important for students. Most EFL majors in Palestine lack a clear understanding of writing performance. This may be due to the lack of applying strategies and techniques in an authentic context focusing on this type of writing performance. Within the previous frame, the following studies show the weakness of students' writing performance and the reasons behind such situation which could be attributed to several reasons such as; the deficiency of writing argumentative texts Ibrahim (2015), the difficulty of extracting ideas Chin (2016), and the teachers unawareness of the current writing strategies, Kakandee (2017).

Statement of the Problem

Based on the previously mentioned analytical points, there is a necessity to investigate the effect of the problem solving approach to develop the EFL majors' writing performance at Al- Azhar University in Palestine.

The present study attempts to answer the following main question:

What is the effect of using the problem solving approach on developing the EFL majors' writing performance at Al-Azhar University in Palestine?

Research Sub-Questions:

In an attempt to answer the above question, the following sub-questions were also raised:

- 1- What is the existing level of the EFL majors' writing performance?
- 2- What are the activities and writing prompts based on the problem solving approach to develop writing performance?
- 3- What are the components of the problem solving approach to develop writing performance?
- 4- How far is the effect of the problem solving approach on the target students' writing performance?

Literature Review & Previous Studies

Writing Performance & Problem solving

With regard to the definition of writing and performance, they are related to each other since writing is considered as an act of performance (Harris & Jones, 2016). The function of writing is not just to translate what students think about a suggested topic; it also serves to help students construct and evaluate their knowledge. Woolfolk (2013) ensured the importance of developing writing in order to help students express and perform their knowledge. The following studies showed the importance of developing writing performance, various studies presented the impact of writing performance in TEFL. Some of these studies examined the effectiveness of different approaches and strategies of teaching writing such learning styles in Bahgat's study (2014), feedback in Lackey's study (1997), blog in Eldesouky's study (2018), instruction in Mirlohi et al. (2012) and higher-order thinking in Abed study (2014), linguistics activities based on rhymes in Elsoud 's study (2016).

Writing, by nature, integrates with other components and activities based on thinking of English language. It cannot take place in isolation, however, it comes out as an integration process through which students can interact orally, raise questions, solve problems, engage in conversations and discussions and take notes, or write some stories, or write various viewpoints.

Problem solving is a scientific process which a person passes through. This process aims at understanding the problem correctly, providing the necessary information to solve the problem and finally, solving it by choosing the most appropriate solution (Williams, 2003). It is a learner-centered approach that improves learners to conduct research, integrates theory and practice, and applies knowledge and skills (Savery, 2006).

In terms of the strong connection between problem-solving and writing process, many studies were conducted in the field. The study of Flower and Hayes (2007) introduced problem-solving approach to writing as an alternative strategy for confronting the thinking process. Another study conducted by Whitfield and Xie (2002) showed the high positive coloration between problem-based learning and writing performance at Penn State College of Medicine. That means the relationship between problem-solving and writing performance is highly considered.

According to Barron et al. (2008), problem-based learning involves students working in small groups to “explore meaningful problems, identify what they need to know in order to solve the problem, and come up with strategies for solutions”. In the same way, Harevy et al. (2013) suggested that group work is an essential component of learning and teaching in problem-based learning (PBL), and is compromised if students’ experiences of PBL are colored by dissatisfaction with the process or outcomes. Students provided written reflections on PBL that enabled representations of their group work experience to be mapped using an attitude, skills, and knowledge framework to gauge understanding of the collaborative learning process.

The integration of problem solving and inquiry is noted by Hmelo- Silver et al. (2007) who stated that the inquiry process takes place when the person faces problem. He described the process of problem-solving as a process by which students confront with a problem that launches their inquiry as they collaborate to find solutions. Accordingly, students identify and analyze the problem based on the facts from the scenario; and then begin to generate hypotheses about solutions and they identify missing information. Then, students apply their knowledge, evaluate their problem solutions, recycle to research again if necessary and finally reflect on the knowledge and the skills they have gained. The steps of problem solving include the person’s perspective, considering present or past interactive factors, visioning the future, promoting things forward to and supporting own vision (Gheith, 2009).

However, the main limitation of solving problems as argued by Yuliani et al. (2014) is that solving problem does not consider the ultimate goals and a positive image of the desired future. This

could encourage participants to look backward and analyze the past rather than creatively develop strategies for the future.

It would have been more useful if it had included what is beyond the problems as Orem et al. (2007) reported that most people became discouraged as more problems were uncovered using a problem diagnosis approach, and sometimes could not think beyond those problems. Obstacles can be overcome by trying different solutions which represents the cognitive side of problem-solving; on the other hand, perseverance in the process, worrying, giving up the search for a solution, and hurrying to find a solution exemplify the affective side (Aksan & Sozer, 2007).

The effective problem solver and the opposite is a good comparison made by Murawski (2014) by which he showed that the effective problem solver reads a problem and determines how to overcome and solve it well. Furthermore, the effective problem solver does his best to simplify, define, and maintain a critical attitude throughout the problem. Ineffective problem solver, in contrast, lacks knowledge needed for this process. The learner cannot decide where or how to begin, jumps haphazardly from one part to another, justifies first impressions instead of testing them, tends to distrust reasoning and lacks confidence and a critical attitude as well.

Having taken in consideration the importance of problem-solving in writing, the findings of the previous studies discussed that integration of such components has positive impacts in the learning of problem solving approach. Therefore, the current research considers multiple ways to solve problems and deeply goes beyond what students think is at the core of good teaching. It tries to focus on the solving beyond the problems. Cooperative problem-solving among university students and group discussions of concepts such as empathy, building self-esteem in others and tolerance of differing abilities resulted in a productive experience for all students involved. Problem-based learning is a teaching strategy where students work collaboratively in "real world" problems to develop society problems that surround them.

Design of the Study

This study employed the one group pretest/posttest design along with a mixed research approach incorporating quantitative and qualitative methodologies.

Delimitation

The current research is delimited to the following:

- The participants of this study were third year English majors (n=115) enrolled in the English Department, Faculty of Education, Al-Azhar University, in the academic year 2018-2019, Palestine.
- Writing performance was selected for flexibility of assessment
- Some face to face and online activities based on the problem solving approach relevant to the targeted writing performance for the study participants.

Significance of the Study

This study is expected to be of importance for:

Students: as they can apply various strategies and activities by which they can enhance writing performance towards different issues, thinking deeply to ask questions and thinking positively to suggest solutions of problems.

Teachers: as they will be provided with a variety of suggestions and activities that can effectively enhance their EFL students' writing performance.

Policy makers: as they make use of problem solving approach in attempting to develop or renew the curricula and teaching materials, in order to enhance learners' writing performance.

Instruments

The following instruments were used in the study:

- The Pre/post-test,
- The Writing Performance Rubric.

Piloting of the Test

To pilot the test, it was administered prior to teaching the writing performance course to a group of English majors (no=50) who did not participate in the study. The purpose of that piloting procedure was to:

- Establish the reliability of the test;
- Determine the appropriate time needed to answer the test;
- Ensure the validity of the test; and
- Check the suitability of the test to third year students in the clarity of the questions.

Description

The program is based on the problem solving approach. It consists of five sessions of problem solving. The following are the general procedures of the program:

All the activities focused on solving problems and aimed at developing writing performance. They were tackled through the following:

- In each session, the instructor or the students, as requested by the instructor, used internet research, posed a question or an issue or read books from library to start the problem solving approach process.(Warming up)
- Participants were involved in the didactic discussions or debate to start suggesting solutions.
- Participants and the instructor tried to suggest alternative solutions about the suggested issue. (Conclusion)

Teaching the Program

The program was taught by the researcher herself. In order to prepare the program's activities, the researcher made use of several resources research online. All the activities were selected to suit the program's objectives to develop writing performance. The program was

conducted in the first term of the academic year 2018-2019. It took 15 hrs. And 5 sessions over 3 weeks.

Assessment

Assessment of the student' writing performance development through the program was as follows:

- Every activity aimed to assess the students' writing performance whether by themselves or others
- Throughout the program, the students' tasks and oral discussion were checked regularly and the instructor provided them with regular feedback on their writing performance.
- Summative assessment was applied at the end of the program through the writing performance test.

Quantitative Analysis

Verifying the following hypothesis

The hypothesis states that there is no difference between the mean scores of the pretest and of the post-test of the study group in terms of problem solving in favor of the posttest. In order to verify the hypothesis, the researcher compared the mean scores of the study group in the pre and post measurements of the test. These results are clarified in the following Table (1)

Table 1

T- test Results of the Pre & Post Administrations of Problem Solving Concerning Each Single Element

Skill	Mean		Std. Deviation		tc	sig	Effect size(η^2)
	Pre	Post	Pre	Post			
Problem solving							
Sequential model	1.92	3.61	0.78	0.88	20.894	0.000	0.866
Stages of problem solving	2.31	3.67	0.79	0.85	19.881	0.000	
Introduction	2.47	3.99	0.83	0.84	19.777	0.000	
Body paragraph	1.69	3.63	0.79	0.91	24.143	0.000	
Conclusion	1.72	3.68	0.81	0.93	21.275	0.000	
	10.00	18.69	3.16	3.99	27.140	0.000	

Table (1) shows that there is difference at the significance level of 0.01 between the mean scores of the pretest and of the post-test of the study group in terms of problem solving (the sub elements and the whole one) in favor of the posttest. So, there is a statistically significant difference between the mean scores of the pretest and of the post-test of the study group in terms of developing problem solving in favor of the posttest". Thus, it can be concluded that the students' ability of problem solving developed

due to the program; and that the problem solving approach was effective in developing the students' writing performance.

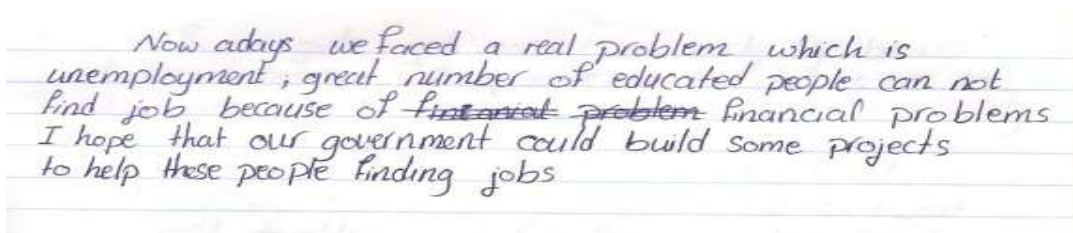
Also, table (1) shows that the experimentation's effect size for solving problems. The effect size value of the test's total scores is 0.80, which is a large effect size indicating the effectiveness of the study's program in developing the students' problem solving.

Qualitative Analysis

The following examples are what participant A, participant B and participant C suggested as solutions for the topics of Unemployment and Future career

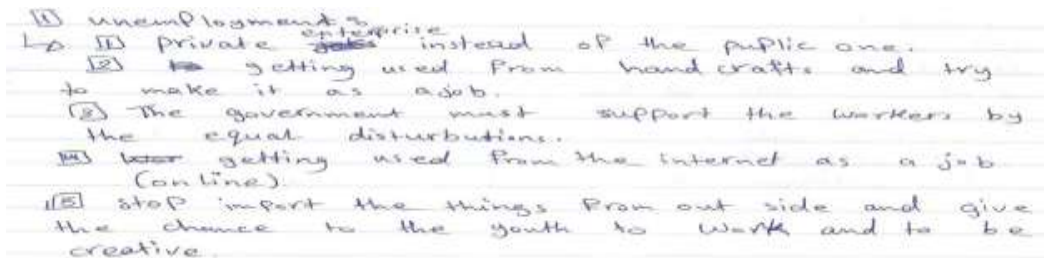
Answers of pretest: (Pre treatment)

Participant A wrote about Unemployment topic



Nowadays we faced a real problem which is unemployment, great number of educated people can not find job because of ~~financial~~ ~~problem~~ financial problems. I hope that our government could build some projects to help these people finding jobs.

Participant B wrote about Future career topic



- 1) unemployment
- 2) Private ^{enterprise} ~~jobs~~ instead of the public one.
- 3) ~~to~~ getting used from hand crafts and try to make it as a job.
- 4) The government must support the workers by the equal distributions.
- 5) ~~to~~ getting used from the internet as a job (online).
- 6) stop import the things from out side and give the chance to the youth to work and to be creative.

Participant C wrote about Unemployment topic



Unemployment is not having a job and being without doing anything and not having a salary to live from. So, the person should be responsible for finding a job to provide his living. The government must provide jobs for unemployed by building many factories and make them work in. They can also work in recycling the rubbish. So, in my opinion I think that the country and its government must provide new jobs for the unemployed people. Finally, when the man works, he will find many ways to get his living, so keep looking for a new job even if you don't like it.

From the previous samples, it can be inferred that most participants mentioned the definition and discussed the problem in general. Participant A wrote their opinions towards the problem without suggesting any solutions while participant B and participant C suggested one solution but did not follow systematic stages of solving problems.

Answers of posttest: (After treatment)

Participant A wrote about future career

It is really hard to find your future career if you don't have any ambitions. Some students get on the university more than to your feeling or changing the college. Other have more luck and get successful from the first years but they put on their jobs. This is a real problem that most students face it.

This problem can set up because of some things like they haven't ambitions. The students that have pressure from their parents and the others watched to stay with their friends. For example Sam had his friend Dia who wanted to be a doctor so much because Sam wanted to be a teacher but she decided to enter the faculty of dentistry. I think parents could be the best reason for this problem.

Although this problem is really hard to solve but we have to do our best. Parents could put some ambitions on their children to grow up with them and get bigger. They also need to know their children's abilities to help them on deciding their future. Parents have to give their children trust on themselves.

The best solution is growing their children up in a good environment to bring up persons know what they want play an important role in their society and can manage their life early even if they were under stress and pressure.

Thus we have to aware parents for this dangerous problem and know the advantages and the disadvantages of growing the children up in imbalance family. They have to do that in wide field to touch all the parents hearts and give a real example for this problem.

To sum up, this career is an important case that we have to solve it because we are need from better teacher, doctors, lawyers and so on. So we have to put this awareness for parents who raised their children up to avoid this disaster.

Participant B wrote about Unemployment (Problem Solving Topic)

There are many various types of problems. One of the most important problems is global warming. Global warming is a climate change in the average of temperature of world. Or, it is a rise in the temperature of earth. Natural actions and human beings practices are the most contributors who are responsible for these big problems. So, there are many causes for this problem, which is occurred whether by natural actions or human beings practices. Also, this problem can affect badly on earth. Thus, we have to find an effective solutions to this.

Global warming has many causes which happens whether by natural actions or human beings practices. As for natural actions, it can be represented by high radiations by the sun heat rays which reach and heat up the earth's atmosphere. The second reason is green houses. These houses trap carbon dioxide inside it which means that carbon dioxide doesn't rise up but be in the surface. The third person is volcanoes.

When volcanoes exploded, it produced some toxic gases and also carbon dioxide that affect on earth and people. As for human beings practices, humans cut off trees that absorb carbon dioxide and reduce it. This can lead to a plenty of this gas on air. Also, burning fuel fuels by running the complicated machines to work. Further, when human beings breathe, they exhale carbon dioxide. Moreover, burning rubbish and using products that cannot recycle. All of these causes global warming.

Global warming has its effects. It can harm people by causing them different diseases like skin disease and chronic nose. It can also raise the average of carbon dioxide gas on the air which means spreading out toxic gases that humans inhale. Moreover, polar ice caps will melt because of the high temperatures. Also, many animal will die and disappear. They will extinct because the climate change. They used to live in a moderate weather so if the weather changed, they would all die and get away.

Many institutions and governments or organizations seek to an efficient and effective solutions to this problem. There are many things to do to reduce global warming. First, you have to buy an energy saving products in order to reduce the average of carbon dioxide in the air. Also, reducing the use of plastic products. Many factories

decide to recycle the rubbish instead of burning it. Also, you can depend on yourself in manufacturing products instead of machines that consume fossil fuels to work. Another solution is to plant trees to absorb carbon dioxide which in turn can reduce its average, so the best solution is

planting trees and recycling products to save our lives and to maintain the natural balance. So, as a responsible human, you must be aware of this problem and seek to reduce and finish this danger. By being aware, you are expected to participate in solving this problem by trying to apply the solutions above which were mentioned before. In that way, you will spread out this issue to the whole world. We all try to spread out the awareness in order to live a healthy life.

So the main reason is the gap in the Ozone which protects earth's surface. And that's caused by human practices and natural change. In brief, global warming threatens our life very badly. The human beings with all their practices and the nature changes and actions cause global warming. We have given some solutions to this problem in order to reduce its average on earth which in turn affects badly on people and the atmosphere of earth. We all should be aware to try to reduce the causes of global warming and try to apply the alternative solutions to live a healthy life and to protect ourselves from chronic diseases. So please be aware and responsible of protecting yourself and your society from different practices you do to prevent climate change and also to protect nature and animals.

Participant C wrote about Future career (Problem Solving Topic)

As we live in this large world, we face a lot of difficulties due to the huge amount of populations and the high numbers of new birth. One of the most dangerous problem that we may face as a result of all these previous reasons is unemployment. Unemployment is considered to be one of the troubles that youth may face but it is like any thing in this world, it can be solved in many ways.

Unemployment can cause a lot of problems among people and it has really bad effects in all of our life sides. It will spread widely poverty among them, and that will lead to stealing because people don't have another source to get money from, so they try to find another solution to cover their need and expenses which is of the stealing. Above all unemployment may deprive many students to get the appropriate education and it may deprive them

from going to schools because parents can't provide them the decent life which helps them go to schools. For example, my 32-year-old uncle is suffering from the unemployment and he tried a lot to work in many companies but he didn't. As a result, he deprived his sons to go to school because he can't afford its expenses.

To solve all of these troubles, there are many solutions that should be considered to solve all of these problems. A private job should be considered to improve our bad conditions. For example, everyone should try to find a specific job which is related to his interests such as the hand made things or crafts because it will be better than the governmental one. Equally important, as we live in this globalized world, the internet is very useful to show our industries to the outside world. So, we should work as a freelancer and get used of this technology.

To conclude, this world is full of new actions and developments and difficulties. As a result of that, we should stand up and take the right decisions to improve ourselves and to solve these difficulties such as the unemployment and any other things.

Commentary

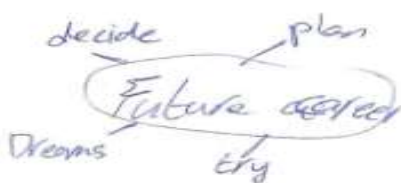
First, the participants provided a good introduction starting from what is general to what is specific and wrote an overview of the key stages of the solving problem process. Whereas a big number of students attempted to solve the problem, a very few number of students did not follow the stages of solving the problem. This is in line with a qualitative study which was conducted by Ozturk and Guven (2016) on five students who described the problems they encountered while attempting to solve problems. Some students commented that the problems were complex and away from reality, while the others merely mentioned their background knowledge of the problem itself without thinking deeply to solve the problem. Also, the difficulty may lie in the problem itself which may put the knot in the solution. There is another reason why solving the problem may be difficult, which is paying attention to details. Moreover, the lack of participation in solving the problem itself may keep away from the optimal solution. Therefore, in the post test, the participants followed systematic procedures for identifying the problem first then finding solutions.

The statistical analysis showed that some participants developed less in identifying the problem and putting appropriate solutions to find the best ones. The problem solving approach can be used effectively to achieve a high level of the performance. It could be seen throughout implementing its activities as stated by Jones, (2009) where students are encouraged to develop their understanding by solving problems and working through solutions in subsequent class discussions, which allows the students to appreciate the availability of alternative solutions. Following this approach students learn to find solutions of problems in their real life.

However, there was still a weakness in their ability to suggest more than one solution. This may be attributed to the limited prior knowledge they had. With regard to using prewriting techniques, they got used to generating and drawing ideas before they started writing.

This positively affected participants' writing performance to organize the ideas before writing. The following are some examples of their writing.

Participant A and Participant C



Regarding the students' engagement into learning, it is noticed that they enjoyed solving problems in the current study. In the same line, Sindelar (2010) asserted that problem-solving was an effective strategy that the experimental group was also observed to be more engaged in the learning process due to the problem-based learning strategies.

Providing constructive feedback and introducing strategic methods and modeling can be observed in the progress of the student in their activities throughout the course. Jeon, Huffman & Noh, (2005) suggested that feedback helps learners to improve their problem-solving performance.

It could be concluded that the study was almost effective in developing the writing performance for the third year, English department students. This was evident through the qualitative analysis of the students' writing productions through the study.

Suggestions for Further Research

Researchers may further explore the effectiveness of using the problem solving approach in developing writing performance. The following are some examples of the studies that may be attempted:

- Conducting ethnographic case studies using the problem solving approach to develop writing performance.
- Investigating the effect of using the problem solving approach on teachers' professional development.
- Exploring the students' perceptions of using the problem solving approach in learning the English language in general and in improving their writing performance in particular.
- Designing a training program to encourage teachers to use the problem solving approach.
- Enhancing self-expression ability as a prerequisite for language learners.
- Developing teachers' pedagogical knowledge of the problem approach and the attached strategies.
- Using the task based problem solving approach to develop students' writing performance.
- Using storyboard based problem solving research in an action study.

Limitations

There are some difficulties encountered throughout the treatment encountered throughout the treatment:

- It was found that most participants were afraid of writing and using graphics or storyboard. Therefore, the researcher provided different techniques and tasks that facilitated the process. This will likely to be effective in developing their ability to write topics with little mistakes.
- It was less difficult for most participants to solve problem because they did not have enough knowledge. As a result, the researcher suggested different topics related to their interest. With this variety of topics, they will expand their knowledge so that they could discuss any topic easily.
- In the beginning of the classes, the participants were a bit careless. However, as they benefited more from the course, they started to attend class regularly. Therefore, instructors should motivate their students in order to engage them into learning.
- The classes were not really adequate for learning through the problem solving sessions. There were some obstacles which included; a regular cut of electricity and poor use of computer lab. However, the researcher tried to use the microteaching labs and the library to create a rich environment for the participants.
- It was a challenge for the researcher to meet all the participants' needs and wishes. Therefore, it is necessary to use different techniques based on effective approaches to enhance their writing performance.

Conclusions

The purpose of this study was to investigate the effectiveness of a program based on the problem solving approach for enhancing the English department students' writing performance. Based on the previously discussed findings and quantitative and qualitative analyses, the following conclusions were gleaned:

- Implementing the problem solving approach proved to be effective in developing English language majors' writing performance.
- The qualitative analysis of students' writing performance indicated that they became more aware of what is meant by writing performance, had the chance to practice writing easily without stress, received constructive feedback on what they wrote and finally developed their vocabulary and oral performance along with their writing performance.
- The participants were provided with successful language learning experiences which motivated their participation and improved their writing performance.
- The participants were satisfied with the problem solving approach as they expressed in their opinions.
- The program provided hands-on experiences that included different techniques of the problem solving approach.

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