

# **The Effect of Implementing Project-Based Learning on English Communication Skills among Foundation Program Students in Oman**

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## **Abstract**

Communication skills refer to the abilities and competencies that enable individuals to effectively convey and receive information, ideas, thoughts, and feelings. These skills are essential for effective interpersonal interactions, both in personal and professional settings. Various teaching approaches can help students enhance their communication skills. This study seeks to investigate the effects of project-based learning (PBL) on university-level English language students' communication skills in Dhofar governorate in Oman. The study utilized quantitative research methods to answer the question regarding the effectiveness of using the PBL approach to foster students' communicative skills. A group of 20 level-four students from Salalah Vocational College participated in this study. A descriptive analysis was implemented to test the research hypothesis. A 4-Likert scale self-report questionnaire was adopted from a study conducted by Noviana, Abdurrahman, Rosidin, and Herlina (2019) to measure the communication skills of the participants. SPSS was used for analyzing collected data. After comparing the scores of the pretest and the posttest, it was found that most students feel that they acquired their communicative skills as a result of the implementation of the PBL method. Additionally, some limitations have also been explored. based on these results, some recommendations have been suggested.

**Keywords: project-based learning, English communication skills, foundation program students, Dhofar governorate in Oman**

## أثر تطبيق النعلج المبني على المشروع على تطوير مهارات النواصل في اللغة الانجليزية لطلبة البرنامج التأسيسي في سلطنة عمان.

د علاء علي العديني

أستاذ مناهج وطرق تدريس اللغة الانجليزية المساعد بقسم التربية في

جامعة ظفار- سلطنة عمان

□ الاستاذة سمحة المسهلي

□ ماجستير المناهج وطرق التدريس- اللغة الانجليزية

□ جامعة التقنية والعلوم التطبيقية- فرع صلالة- سلطنة عمان

### ملخص الدراسة

تشير مهارات التواصل إلى القدرات والكفاءات التي تمكن الأفراد من نقل واستقبال المعلومات والأفكار والمشاعر بفعالية. وتعتبر هذه المهارات ضرورية للتفاعلات الشخصية الفعالة، سواء في الإعدادات الشخصية أو المهنية. و يمكن أن تساعد أساليب التدريس المختلفة الطلبة على تعزيز مهاراتهم في التواصل. تسعى هذه الدراسة إلى التحقيق في تأثير التعلم القائم على المشاريع (PBL) على مهارات التواصل لدى طلبة اللغة الإنجليزية على المستوى الجامعي في محافظة ظفار في عمان.

و استخدمت الدراسة أساليب البحث الكمي للإجابة على سؤال حول فعالية استخدام طريقة التعلم القائم على المشاريع لتعزيز مهارات التواصل لدى الطلبة. ولقد شارك في هذه الدراسة مجموعة من ٢٠ طالباً في المستوى الرابع من الكلية المهنية بصلالة. وتم تطبيق تحليل وصفي لاختبار فرضية البحث. و تم استخدام استبيان ذاتي حسب مقياس ليكرت من ٤ نقاط، وتم تكييفه من دراسة أجراها Noviana, Abdurrahman, Rosidin, and Herlina (٢٠١٩)، لقياس مهارات التواصل لدى المشاركين، وتم استخدام برنامج SPSS لتحليل البيانات. بعد مقارنة نتائج التطبيق القبلي والبعدي للاستبانة، وُجد أن معظم الطلاب يشعرون أنهم اكتسبوا مهاراتهم التواصلية نتيجة لتطبيق طريقة التعلم القائم على المشاريع.

الكلمات المفتاحية : التعلم القائم على المشاريع ، مهارات التواصل باللغة الانجليزية ،طلاب البرنامج التأسيسي ، محافظة ظفار في سلطنة عمان

## Introduction

Education nowadays seeks to build a highly engaging learning environment. The typical and traditional methods of teaching that are teacher-centered, where the teacher is the presenter of knowledge and delivers the lecture while students are passive and only taking notes are considered outdated. They do not result in engagement, and unless students are actively engaged in the learning process; it is hypothesized that they cannot advance in their learning. Gone are the days that regards the traditional kind of teaching is effective. Modern-day problems need modern-day solutions and methods. Modern-world demands students who actively participate in their education and are well-equipped with the necessary higher cognitive and communicative skills that can be of great significance in their lives. Many approaches to teaching are oriented to the needs of the students, but Project-based learning is one of the best methods when it comes to engaging students and personalizing their knowledge and learning. It is an interactive process where students negotiate meaning and explore things beyond the materials presented in their textbooks. This kind of approach helps students also to develop important skills, academic and social, that are highly needed in today's world. This Paper will examine the effect of Project-based learning on university-level English language students' communication skills in Dhofar.

## Literature Review

### Definition and Theoretical Framework

Project-based learning, also known as PBL, is a form of student-centered instructional method that is frequently used to develop and enhance students' cognitive and communicative skills such as critical thinking and collaborative skills (Biazus, & Mahtari, 2022). In other words, it is an active learning method that helps students to engage and personalize the learning process, and a byproduct of this process is developing life-long skills that are highly significant.

According to Cervantes, Hemmer, and Kouzekanani (2015) classrooms that implement PBL are created to encourage students to engage and genuinely inquire about real-life issues and matters, which would mean that learning will go beyond the mere mastering of the content knowledge and materials. In lieu, PBL also allows learners to apply what they have learned and adapt it to different circumstances and challenges.

The theoretical foundation of this method reflects those from Experiential Learning theory, also known as ELT (Cervantes, Hemmer, & Kouzekanani, 2015). The premise of ELT is that learning and knowledge take place in a process where the experience gained is a mixture of gaining information and changing experiences. Kolp (1984) and Alastal et al. (2022) stated that learning, from the ELT perspective, is holistic and adaptive in nature. That is to say, learning should not be decontextualized, it should create a link between reality contexts and emphasize the importance of adapting and changing the experiences gained in the learning process. Therefore, it highly highlights the usage of the world of experiences and experiences specifically in the

learning process, and this is how it is connected with project-based learning. Gutek (2005) asserted that learners are by nature social beings, they are inherently predisposed and inclined to engage in spontaneous and authentic social opportunities where they are engrossed to understand how all the things around them are seen and function in their everyday life. As students have to learn through a process of discovery where they need the consultant of adults, instructors, experts, and their peers learning will be a social event. This is the idea behind ELT and this is how it complements the principles of PBL. Therefore, it can be summarized that PBL is a learning and teaching method that is especially effective with contextualized knowledge that has more longevity.

### **PBL Principles and Project Characteristics**

Project-based Learning uses a driving question or a problem as an initial process to produce new information that is based on practical actions and experiences (Nawangarsi, Pujiastuti, & Gularso, 2022). PBL involves learners in a project that is structured based on a driving question that will require students to engage in ongoing and cooperative endeavors. It is essential that the learners are equipped with certain social skills like sustained cooperation throughout an in-depth social engagement in order to tackle a problem-solving task (Gary, 2015, Almashani, 2023).

Kokotsaki, Menzies, and Wiggins (2016) listed some defining characteristics of PBL, but they all reflect three main constructive tenets. First, learning should always be contextualized. Second, students should be able to be actively engaged in the learning process, because PBL is student-centered. Third, the learning outcomes should be attainable through a series of social interactions where they can share and co-construct knowledge. In short, it is an inquiry-based process that takes place in an authentic and realistic learning environment through real-world activities and challenges, and the result is a personalized and meaningful educational experience that is demonstrable by the final product, the project.

In theory, it might seem simple to say that a project needs to be conducted to achieve the promised results, but that is not the case because only well-designed projects can stimulate the desired effects and product. The project should be ethical, effective, and even aesthetic aspects to it that will maximize the levels of students' engagement while constructing their projects along with the appropriate amount of freedom and cognitive challenge. Thus, according to Larmer and Mergendoller (2010), there are seven characteristics that the project should have to be well-crafted and well-implemented:

First, there should be a strong sense of “need to know”. A project that starts with an “entry” event will pique their curiosity and prompts them to start questioning, and thus effectively ignite their demand to obtain content knowledge. As a result, the link will be made between schoolwork and real-life, because students usually view education as pointless due to their lack of understanding of its value and relevance in their lives. Second, students should be able to formulate a “driving question” that will capture the project’s core. It must be compelling, clear, give learners a feeling of

mission and challenge, and be directly related to the lessons the teacher wants the students to attain. Third, student needs to have more “voice” in their project and to do that assignments need to be designed in a way that accommodates and acknowledges students’ style and preference. Fourth, the project should provide students with learning opportunities where they can develop their 21<sup>st</sup> century skills such as critical thinking and communication. Fifth, the project should help students engage in an authentic inquiry where the source of information is straight from books and websites. They start the search with a genuine question and then start the search for answers, and throughout the search, new questions and hypotheses will be generated which will lead to authentic conclusions and innovation. Sixth, PBL places great emphasis on producing good end products and performances, there should be formal feedback for students to understand that high-quality work is not produced on a first try, rewriting is a common part of any work done in the real world. Finally, for the project to have a greater meaning and higher quality, students should have the opportunity to exhibit their work for a greater audience.

#### **Evidence of the Effectiveness of project-based learning on soft skills.**

In a quasi-experimental study conducted by Kaldi, Filippatou, and Govaris (2011) in Greece, PBL can help primary school students gain subject-matter expertise, group-skills, and maintain a positive attitude towards learning. Similar findings were found in another quasi-experimental study conducted in Oman by Al-Bulushi and Al-Aamri in 2014. In an investigation of the impact of environmental science projects on 62 high school female students’ knowledge and attitudes toward science, they stated that the experimental group significantly outperformed the control group. Furthermore, Kies (2018) concluded that PBL is intended to assist students in not just learning the content knowledge, but most importantly developing lifelong skills. These kinds of skills are essential for succeeding and facing the changes the world is undergoing today, like critical thinking, cooperation, communication, and time management. Also, Hovey and Ferguson (2014) confirmed the previous statement. They stated that PBL needs teamwork which will help students improve their cooperation abilities and communication. To clarify, students will implement their collaborative skills to find solutions as they are carrying the weight of learning. These interpersonal skills and teamwork abilities are always being improved to produce the project in teams. One of the most recent studies conducted in 2022 by Nawangsari, Pujiastuti, and Gularso in Indonesia also concluded that PBL has a huge impact on the development of students’ critical thinking skills. However, in another study by Fini et al. (2018), although PBL had a considerable influence on students’ thinking skills, it did not enhance the learning outcome attainment or learning satisfaction. Nevertheless, the benefits outweigh any other results that can be found regarding the effects of PBL.

### **Challenges and Possible Drawbacks**

Just like any teaching method, PBL can be quite challenging for some teachers to implement for a variety of reasons. To illustrate, not every teacher will be able to implement PBL successfully due to some reasons the top of them is that teachers may not be equipped with the knowledge of how to execute it (Kies, 2018). Both Kies (2018) and Gary (2015) addressed some of the challenges that may arise while implementing PBL in a classroom, they can be summarized into the following points: First, although most instructors are familiar with PBL, not all of them get the actual use of it. Some think it is all about creating a project. Thus, teachers may feel reluctant to implement a method they don't fully understand. Second, assessment is one of the most serious drawbacks of using PBL. Given that the government and administrators put schools under the pressure of standardized tests, and the success of students is measured based on them, it would make it so hard for teachers to experiment and introduce new methods. In addition, the assessment should reflect the learning outcomes. Yet, some students may hide behind their work, and it is not plausible that where every student has a different experience, they will move toward a mutual learning outcome. Third, time is another possible drawback of using PBL. To clarify, class time is usually around 50 minutes, and thus it is challenging to truly delve in-depth into any topic. Therefore, students will have to devote a lot of their time outside the school to complete the project work.

### **Significance of the Study**

Despite the fact that there have been numerous studies on PBL and its effects, the researcher is aware of no studies that have examined the effect of implementing this theory and the development of communication skills in Oman or any other GCC country even though there have been numerous studies on PBL. Additionally, this study will advance pedagogical techniques in Omani school systems that support conventional methods in the field of education. The results of this study and the recommendations that will be provided should help shed light on the application of PBL in Omani classes. Also, teachers and policymakers may make the required improvements to the Omani educational system that support the traditional and conventional teaching methods with the aid of the study's findings and recommendations.

### **Purpose of the Study**

This study aims to investigate the effect of implementing Project-Based Learning and the communication skills of EFL students, specifically, it will address university students in the Omani context.

### **Research Question**

- ♦ What is the effect of applying Project-Based Learning on the communication skills of Omani EFL learners?

### Research Hypothesis

Based on the research question above, the following null hypothesis was developed:

- ♦ There is no statistically significant difference at ( $\alpha \leq 0.05$ ) in Omani students' communication skills attributed to using Project-Based Learning in EFL classes.

### Methodology

The study utilized a pre-experimental research design, specifically a one-group pretest-posttest design that studies *one group* before and after the application of the independent variable and the possible changes that the treatment causes. In this study, PBL acts as an independent variable (IV), and communication skills as a dependent variable (DV) among university-level EFL students in Oman. The participants of the study were 20 foundation program level four students collected using the convenience sampling method from a higher educational institution in Dhofar called Salalah Vocational College.

The instrument of the study is a 4-Likert scale self-report questionnaire adapted from a study conducted by Noviana, Abdurrahman, Rosidin, and Herlina (2019) to measure the communication skills of the participants (see appendix). According to Noviana et al. (2019), the instrument has proven to be valid and reliable. The validity of the instrument is  $0,000 < \alpha$  (0.05), and the reliability is Cronbach's Alpha 0.747. The questionnaire was given to the students twice, before the project and after submitting the project after three weeks to observe the difference, if any, that is due to the implementation of the IV.

Before starting the intervention for this study, the participants were told about the research and were given relevant information to take their consent. Then, the students were asked to complete the questionnaire as a pretest, and they were demonstrated to express their true feelings when responding to the scale. Then, for three weeks, students were divided into small groups to work together on the projects. They were asked to choose projects that align with the language learning objectives and are of interest to the students. Projects revolved around topics like culture, travel, environmental issues, and literature. Students were guided through the planning process, where they set goals, developed a timeline, and allocated responsibilities within their groups. Moreover, students were encouraged to conduct research and gather information related to their project topic. They used authentic resources such as websites, articles, interviews, and surveys. Later, students were asked to present their projects in front of their classmates. Finally, the students were asked to complete the questionnaire again as a posttest. The data analysis stage is described in the next section, to present the descriptive statistics and findings.

### Analysis and Findings

For the data analysis, SPSS analysis software analysis was used. Wilcoxon test was implemented to measure the validity of the test's results, and if there is a significant difference in the responses, and Cronbach's Alpha was used to test the internal consistency. Also, central tendency measurements and comparing the means were implemented to analyze the questionnaire and the results are as follows:

Test Statistics Post.scores- pre.scores	
Z	-3.923b
Asymp. Sig. (2.tailed)	.000

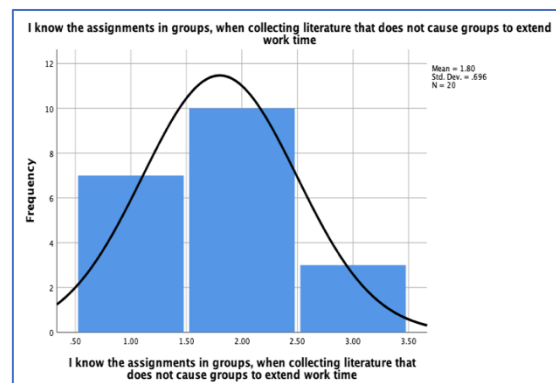
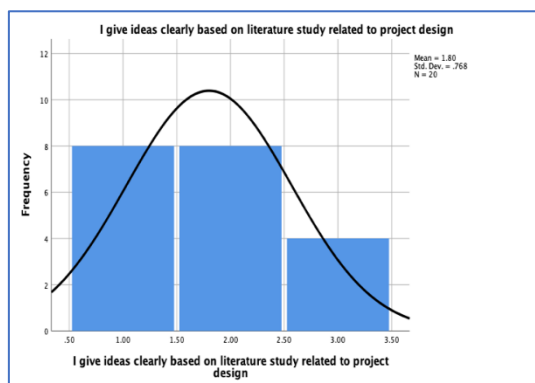
Reliability Statistics	
Cronbach's Alpha a	N. of items
-.935	2

According to the above tests, the test results show a significant difference between the pretest and posttest, and the significance of the data results is 0.000 which is less than  $\alpha$  (0.05) according to the Wilcoxon test. Also, the reliability of the test results is -0.935, which means

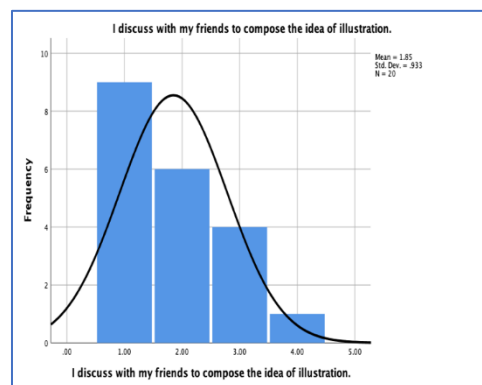
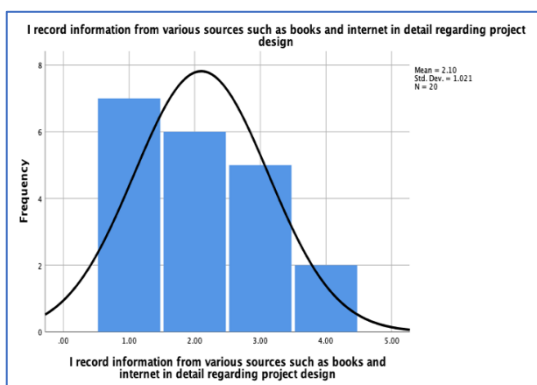
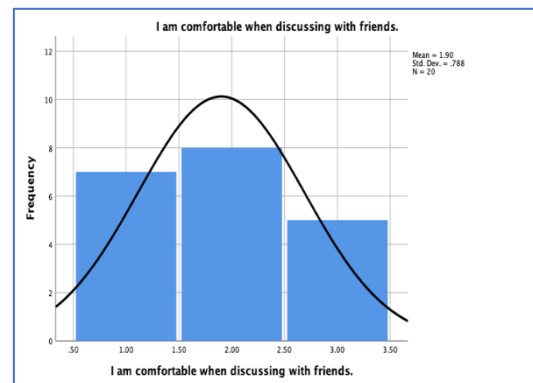
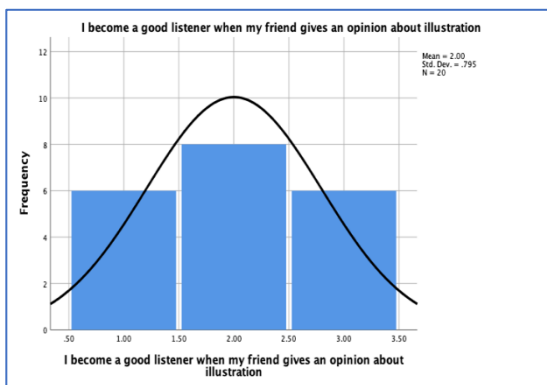
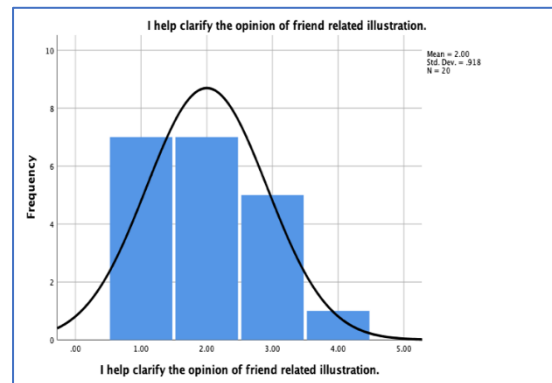
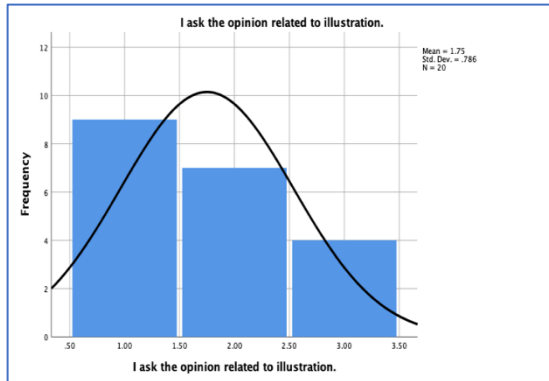
that the responses of the participants were consistent throughout the test according to Cronbach's Alpha test. Therefore, the results can be considered valid and reliable.

		I give ideas clearly based on literature study related to project design.	I know the assignments in groups when collecting literature	I know the assignments in groups when collecting literature that does not cause groups to extend work time.	I discuss with my friends to compose the idea of illustration.	I become a good listener when my friend gives an opinion about illustration	I help clarify the opinion of friend related illustration.	I ask the opinion related to illustrations.	I am comfortable when discussing with friends.
N	valid	20	20	20	20	20	20	20	20
	missing	0	0	0	0	0	0	0	0
mean		1.80	1.80	2.10	1.85	2	2	1.75	1.90
median		2	2	2	2	2	2	2	2
mode		1.00	2.00	1.00	1.00	2.00	1.00a	1.00	2.00
Std. Dev.		.67	.69	1.02	.93	.79	.91	.78	.78

Table 1: Pre-implementing PBL questionnaire descriptive analysis





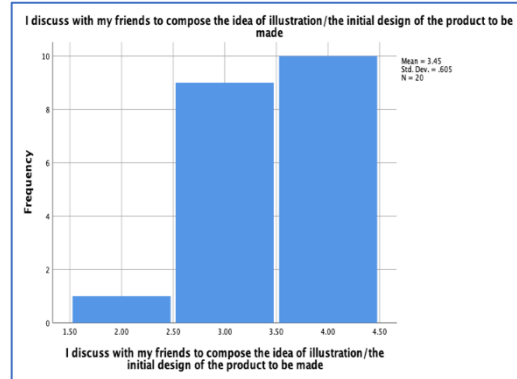
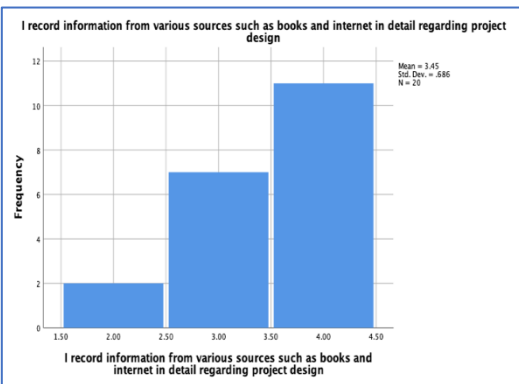
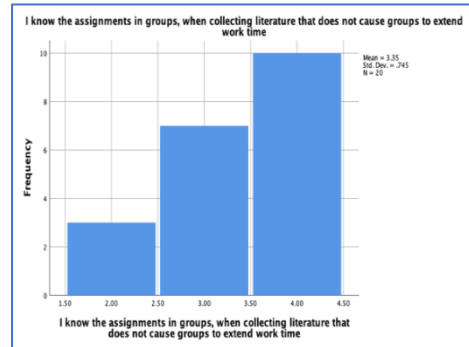
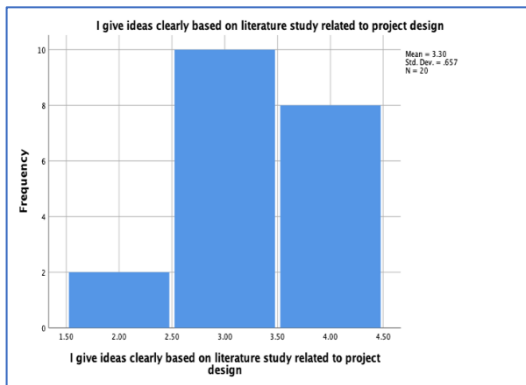


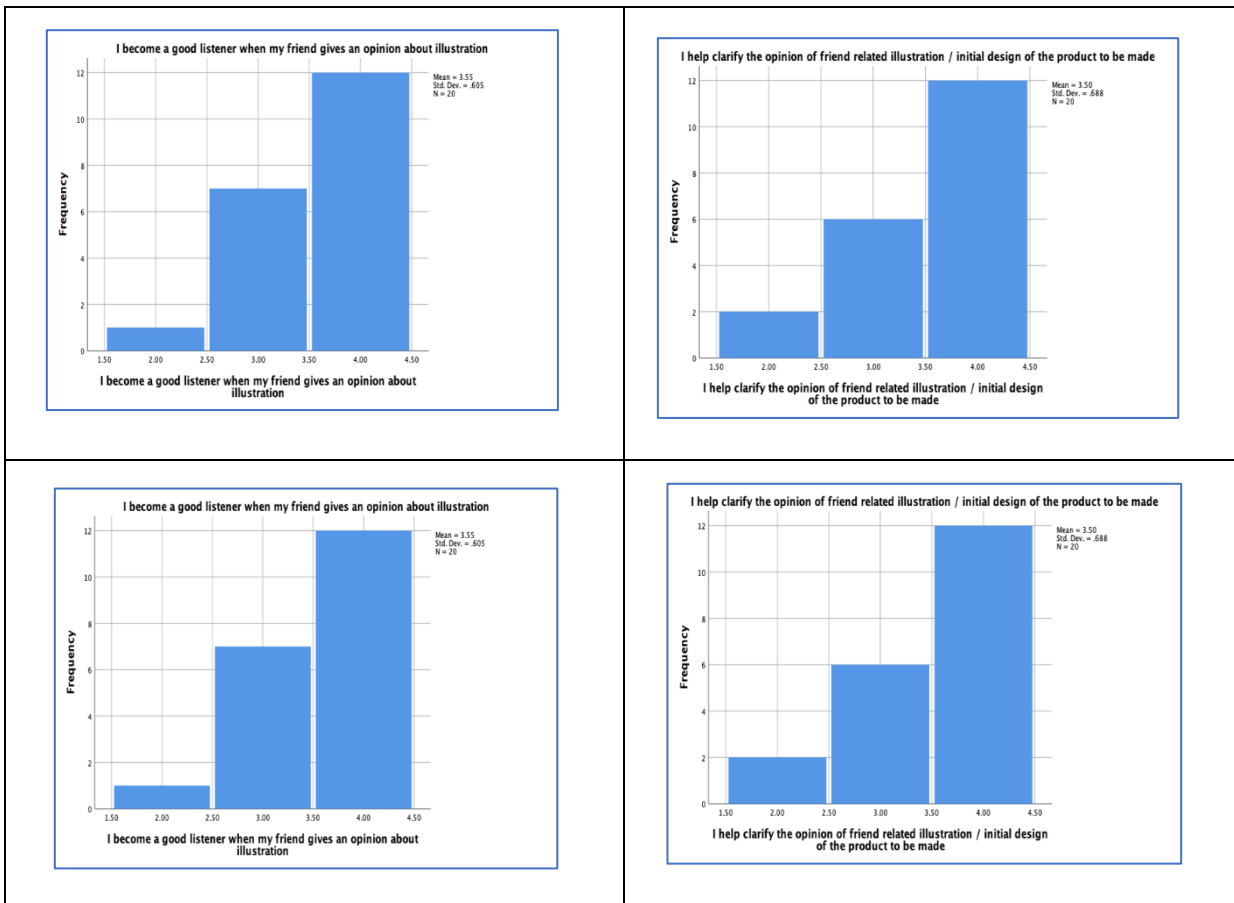
As seen in Table 1 and the following graphs, the students' mean scores in all items were very low. The mean of all times was between 2.1 and 1.8, and thus they revolve around disagree and strongly disagree with more inclination toward disagree. Therefore, based on the students' self-reflection questionnaire, it seems that the students before the implementation of PBL, appeared to believe that their communication skills lie between low to average. Also, the mode, which is the most frequent answer, in all items, was either 1 or 2, and both scores denote disagree and strongly disagree. Thus, it can be seen via the scores in Table 1 that students lack knowledge of how to communicate and work in groups and they are aware of this weakness.

This finding can be the result of the salient approach used in most Omani classrooms that favors traditional approaches that are teacher-centered, and students don't have enough opportunity to communicate or improve communication skills because traditional approaches encourage students to be receptive to new knowledge only.

		I give ideas clearly based on literature study related to project design.	I know the assignments in groups when collecting literature that does not cause groups to extend work time.	I record information from various sources such as books and internet in detail regarding project design.	I discuss with my friends to compose the idea of illustration/ the initial design of the product to be made	I become a good listener when my friend gives an opinion about illustration	I help clarify the opinion of friend related illustration/initial design of the product to be made.	I ask the opinion related to illustrations.	I am comfortable when discussing with friends regarding the initial product design to be made
N	valid	20	20	20	20	20	20	20	20
	missing	0	0	0	0	0	0	0	0
	mean	3.30	3.35	3.45	3.45	3.55	3.50	3.65	3.45
	median	3	3.5	4	3.5	4	4	4	4
	mode	3	4	4	4	4	4	4	4
	Std. Dev.	.65	.74	.68.	.60	.60	.68	.58	.68

**Table 2: Post-implementing PBL questionnaire descriptive analysis**





On the other hand, Table 2 and the following graphs show a noticeable difference in students' responses to their communication skills after submitting the project given the nature of the process of conducting the project, which is communicative and collaborative. The mean of the items of the questionnaire is no less than 3.3, which would mean that the students, after the application of PBL, agree that they have acquired the communicative skill necessary for completing the project. Moreover, the mode in all items was 4, except in item 1 which was 3. Thus, most students feel that they have the communicative skills needed for the project as a result of the implementation of the new method of teaching.

The above finding supports those found in the studies previously mentioned in the literature review. Kies (2018) stated that PBL can help with lifelong skills, such as communication, and Hovey and Ferguson (2014) and Aladini et al. (2024) also confirmed by stating that PBL helps students with collaborating and communicating skills. That is to say, the difference in the self-report responses that previously showed students' reluctant endeavors to engage in collaborative work to develop and being comfortable with the communicative skills needed to complete the project. Communicative skills are very important in today's world, and Kies (2018) and Aladini et al. (2023) emphasized that the changing world nowadays needs to pay attention to certain skills that would help students to engage with other people, and those skills are 21st-century skills like communication and collaboration. For this reason, schools and academic institutions are responsible for equipping students with such important skills. One of the effective methods by which educational institutions can do so is by using a variety of teaching methods, like PBL, that promote the use of those skills in educational

practices and activities as it will help them later on with life challenges and demands, such as work demands.

On the other hand, Critics of problem-based learning (PBL) argue that implementing predetermined routines can undermine the fundamental principles of interactive and adaptable education (Kennedy, 2016). However, there is a lack of extensive research examining the firsthand experiences and perspectives of both students and teachers who have participated in PBL processes, particularly regarding their encounters, situations, and observations (Tsybulsky & Muchnik-Rozanov, 2019).

The PBL approach also fosters deep and active engagement of students in authentic tasks and projects (Lampert et al., 2013), promoting the exploration of innovative solutions that draw upon a broader range of resources, knowledge sharing, collaboration, and social-emotional learning (Gómez-Pablos et al., 2017; Lampert, 2010). Moreover, this approach empowers learners to establish their own learning objectives and ultimately become self-directed and invested in problem-solving (Bilbao et al., 2018). Consequently, the PBL approach cultivates a sense of connection between students, the subject matter, and their peers.

### **Limitation and Recommendations**

The study is the first step of future research opportunities that seeks to explore the effects of the implementation of PBL in Omani classrooms. Thus, a new instrument of data collection should be created, rather than adapted, in order to tackle the different dimensions of communication skills. Also, the approach should be implemented for a longer period for there will be more noticeable effects. Also, due to practicality and feasibility, the study used convenience sampling, but for future research, a random sampling technique is recommended so the findings can be generalized.

### **Conclusion**

The use of PBL in the classroom can help a lot of students and gain a great benefit from it. Students need to build a variety of skills and abilities in school along with their search for content knowledge, and one of those important skills is communication. Acquiring communication skills would help students to have better chances of learning and succeeding not only in the classroom but also outside the classroom walls and it extends to the future of those learners. After all, future employment opportunities will always prefer those who have advanced skills along with knowledge. Thus, teachers should be aware of such facts, and thus use methods of teaching that can aid and promote more aspects of learning than just content knowledge, such as PBL.

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