Engaging future educators: Perceptions of project-based learning among pre-service EYL teachers

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ABSTRACT

In a globalized era with very rapid changes in life nowadays, project-based learning is considered as one of the most suitable learning models. Project-based learning provides learning that develops students' skills in communication, collaboration, critical thinking, and creativity. Therefore, EYL teacher education programs should provide opportunities for pre-service EYL teachers to improve their knowledge and skills in project-based learning. The purpose of this study was to determine pre-service EYL teachers' perceptions of project-based learning and its implementation. Conducted in 2022/2023, a total of 55 pre-service EYL teachers from TEYL PD course who were purposively selected participated in this study. Data were collected using a 25-item perception of project-based learning scale. Descriptive quantitative analysis was used to analyze the data. The results showed that out of 55 student respondents, 18 respondents (33%) had a very positive perception, 33 respondent (60%) had a positive perception, 4 respondents (7%) had a neutral perception, and no respondents had a negative perception.

1. Introduction

In the evolving landscape of education, Project-Based Learning (PBL) has emerged as a transformative instructional approach that emphasizes active learning, critical thinking, and real-world problem-solving. It is a teaching method that emphasizes hands-on, real-world experiences to help students develop critical thinking, problem-solving, and collaboration skills (Itamar & Noam, 2018; Muhammad, 2018; Nur et al., 2023; John, 2018). Unlike traditional methods that often prioritize rote memorization, PBL engages students in dynamic, interdisciplinary projects that foster deep understanding and practical skills. It allows students to actively engage in their learning by working on projects that are relevant and meaningful to them. Ultimately, immersing students in complex, open-ended tasks, PBL fosters creativity and curiosity while also promoting a deeper understanding of the subject matter. By engaging in projects that require students to apply their knowledge to solve complex problems, PBL promotes deeper learning and a deeper understanding of the material. Furthermore, this approach to education is becoming increasingly popular nowadays as educators recognize the need to prepare students for the demands of the 21st century workforce, where creativity, adaptability, and teamwork are essential skills (Lapek, 2018; Savery, 2015; Ivanova et.al., 2020; Zahroh et.al., 2023; Lee et.al., 2014).

This pedagogical shift has garnered significant attention, particularly in the preparation of pre-service teachers who are the future catalysts of educational innovation (Peciuliauskiene et.al., 2022; Yalcin, 2019; Van et.al, 2019). In the context of English for Young Learners (EYL), understanding the perceptions of PBL among pre-service EYL teachers and their readiness to implement it is crucial for integrating this approach effectively into contemporary classrooms. Moreover, pre-service EYL teachers, who are at the threshold of their teaching careers, play a pivotal role in shaping the learning experiences of their future students. Their perceptions, attitudes, and understanding of PBL can significantly influence its adoption and effectiveness in schools. As they transition from theoretical coursework to practical application during their training, their perceptions of PBL—its benefits, challenges, and feasibility can provide valuable insights into how teacher training programs can better prepare them for modern educational demands.

Many research studies have attempted to explore the impact of PBL on teacher preparation programs where pre-service teachers take their training journey. One example is a study that found that teachers who had positive experiences with PBL during their training were more likely to incorporate it into their own classrooms, leading to improved student engagement and learning outcomes (Sung & Peggy, 2007). Additionally, another research has shown that teachers who have participated in PBL training reported feeling more confident in their abilities to adapt to new teaching methods and technologies (Smith et al., 2022). Overall, these studies recommend that by understanding the perspectives of teachers who have experienced PBL first hand, teacher education programs should tailor their curriculum to better support the development of effective teaching practices that align with current educational trends and standards, and include PBL in it.

Contrary to these results, it is reported that there have been research projects that examine the barriers teachers face when implementing PBL. The important point these research studies reported is that among the barriers, lack of support from administration and limited resources have been the dominant ones. Regarding this, they highlighted the importance of addressing this challenge in teacher training programs (Shannon & Fei, 2021; Shamery, 2022; Tamim & Grant, 2013; Tempera & Tinoca, 2022). Moreover, it is of equal importance to recognize, still, that not all teachers may be comfortable or adept at using new teaching methods and technologies, and forcing them to do so could lead to resistance and ineffective implementation. Besides, some teachers may have legitimate concerns about the effectiveness or feasibility of PBL in their specific classroom settings. These should also be taken into consideration in teacher training programs (Madeleine et al., 1998; Peggy & Krista, 2006).

Despite the growing advocacy for PBL, specifically in the context of English for Young Learners (EYL), there is a need for more comprehensive research into how EYL pre-service teachers perceive this methodology. Are they confident in their ability to design and implement PBL activities? Do they recognize the potential of PBL to enhance student engagement and achievement? What barriers do they foresee in applying PBL in real classroom settings? Addressing these questions is essential for tailoring teacher education programs to support the successful integration of PBL.

This research aims to fill the gap by exploring EYL pre-service teachers' perceptions of PBL and its impact on their motivation, knowledge application, and overall preparedness for the teaching profession. Featuring the descriptive quantitative research, this study seeks to capture a holistic answer to the issue of PBL and EYL pre-service teachers training program. Specifically, this research aims to address the following research question: what is the EYL pre-service teachers' perception of project-based learning implementation in the training they take? By exploring this main question, we hope we can gain a better understanding of how PBL can be effectively implemented in EYL teacher education programs to better prepare future educators for the challenges they will face in the classroom. Additionally, this research will provide valuable insights for EYL teacher training programs and curriculum developers looking to enhance the effectiveness of their programs through the integration of PBL as well as identifying both strengths and areas for improvement in PBL training.

Ultimately, this research endeavors to contribute to the ongoing dialogue on educational reform by highlighting the perspectives of those who will soon be at the forefront of teaching and learning. By understanding pre-service teachers' views on PBL, educational institutions can better equip them with the knowledge, skills, and confidence needed to implement innovative teaching strategies that prepare students for the complexities of the modern world.

2. Literature Review

2.1. Perception

Perception is interpretation of sensory information or ways of thinking about something. According to Corbin (2020), perception is the individual's perspective and interpretation of others. It can be one of the determining factors for success, which is true for students. Walgito (2002) and Kaimana (2016) stated that perception is the beginning of a sensing process - a process of receiving an individual stimulus through the senses, which is why it is commonly called a sensory process. However, this process does not end, as there is another process called stimulation, which refers to the perceptual process. Meanwhile, Slameto (2015) defined perception as entering information into the human brain. Through perception, humans are in contact with their environment. This relationship is carried out through human's five senses, namely the senses of sight, hearing, touch, taste, and smell.

Shaleh (2008) stated that perception is a process that combines and organizes our sensory data (sensing), which is then shaped and developed to be the awareness of our surroundings, including ourselves. Perception involves discriminating, classifying, and focusing attention on a stimulus object. Perception in the acceptance process involves interpretation based on the experience of an event or object. It involves accepting and analyzing data from the outside world. In an educational context, it is important for students to perceive their learning positively as they will find it easier to learn and remember what they have learned when they feel valued and have positive perception towards the learning they take. Therefore, to learn more effectively and perceive positively, it is essential to avoid misperceptions by using reliable sources in a practical setting. Furthermore, one person's or group's perception is different from another's. They may be in the same position, but they differ in several ways regarding their uniqueness, personalities, attitudes, and motivations (Tarmiji et al., 2016).

There are two types of perception (Robbins & Coulter, 2002). They are positive perception and negative perception. Positive perception is an individual's evaluation of an object or information with a positive view or according to what is expected of the perceived thing or from existing rules. While negative perception refers to an individual's view of an object or specific information that contradicts the expected or established norms. In a common daily context, an example of positive perception could be a customer giving a five-star rating to a product that exceeds his expectations, leading to a favorable review. On the other hand, negative perception may occur when a customer receives a damaged item and leaves a one-star review due to the discrepancy with his expectations

According to Siagian (2018), there are factors that influence a person's perception. They are internal and external factors. The external factors cover the factors that come from family, school, community, or information obtained from various media. These factors affect the perception of people and how they see themselves. Meanwhile, the internal factors are the factors which come from within the individual himself, such as motivation, values, interests, hopes and expectations. Saleh (2018) claimed that factors which play a significant role in one's perception include objects, sense organs and attention. While it is true that negative perception can be influenced by factors such as the condition of an item received, it is important to consider that individual biases and past experiences can also play a significant role in shaping one's perception. Additionally, cultural differences and societal norms can also impact how individuals perceive certain objects or information.

In terms of the process, Alizamar and Couto (2016), stated that the process of perception begins with sensing, where an individual receives a stimulus through a receptor. The stimulus is transmitted to the central nervous system, specifically the brain, where a psychological process takes place. Perception is the process by which an individual becomes aware of what he sees, hears, etc. Sensation occurs whenever an individual receives a stimulus through his senses. The senses serve as a link between an individual and the external world. Sensing is a natural cognitive process, also known as bottom-up processing. This is because it involves the reception of external data that memory has not yet processed. For example, when a person sees a red apple, the sensation occurs when his eyes receive the stimulus of the color red. This information is then transmitted to the brain, where perception takes place and he becomes aware that he is seeing a red apple.

Based on the above explanation, it can be concluded that perception is an interpretation of everything that exists in the environment by using the five senses. Perception can also be said to be the ability to discriminate, classify, and focus attention on a stimulus object. The process of perception

begins with the stimulation of the five senses, and then it is transmitted to the brain. Thus, people receive messages from what is seen, heard, or felt.

2.2. Project-Based Learning

Project-Based Learning (PBL) is a student-centered, inquiry-based learning method that involves decision-making processes based on product focus, collaboration, documentation, and data analysis. PBL is a learning method based on learning theories such as constitutionalism and experiential learning (Handrianto & Rahman, 2019). According to Hairunisa et al. (2019), project-based learning model involves students directly in the production of a project. Students are assigned a project work to manage their classroom learning which results in the creation of something or a product. Focusing on enhancing problem-solving skills through project-based work, PBL model provides ample opportunities for students to exercise their decision-making skills by allowing them to choose their topics, conduct research, and complete a specific project.

PBL is known to enhance students' creativity and motivation (Made, 2016). Similarly, Wulandari et al., (2019), highlights that project-based learning model is a method of learning that emphasizes meaningful questions and problems, as well as problem-solving, decision-making, and the process of finding various sources. It also allows students to work collaboratively and engage in investigative activities. Similarly, Nurhidayati (2019) defines project-based learning as a learning model that trains students to solve problems, make decisions, carry out investigations, and create work to solve problems. Under project-based learning, students are able to understand the concepts and principles better and in a more profound way. In addition, PBL can increase students' motivation because during the learning process, they engage in problem solving and communication as well as collaboration to complete the project and create products while exploring their creativity and innovation (Indrawan & Jalinus, 2019). In terms of the teacher's role, PBL positions the teacher as a motivator and facilitator. In PBL, teachers typically introduce students to real-world problems and ask them to find solutions through a project that challenges their critical thinking and creativity (Seftiani et al., 2021).

In implementing project-based learning, there is a principle that must be followed. According to Nayono and Nuryadin, (2013), there are at least five principles of project-based learning: (a) centrality; (b) driving questions; (c) constructive exploration; (d) autonomy; and (e) realism. These principles are essential in ensuring that students are fully engaged in the learning process and are able to develop critical thinking skills. Centrality refers to the idea that the project should be at the core of the learning experience, driving questions help to guide students in their exploration, constructive exploration allows students to actively construct their understanding, autonomy gives students the freedom to make decisions and take ownership of their learning, and realism ensures that the project is relevant and meaningful to students' lives. By following these principles, educators can create a rich and meaningful learning experience for their students through project-based learning.

Made (2016) divides PBL learning stages into three – planning, implementation, evaluation. These three stages form a unit that support and relate to each other to optimally achieve the learning objectives of the project. The three stages are: 1) Planning. It basically is crucial in any learning process, including learning with PBL. It is essential because this planning stage dramatically affects the quality of the learning outcomes. In addition, this planning stage will demand how the learning process should be carried out; 2). Implementation. This stage belongs to the project learning strategy after everything related to the practice is well planned. During this stage, some preparations are needed to implement the techniques so the plan can go as planned and achieve the set goals. Under PBL, implementation stage is considered the most important stage because it is through this process that students will be able to have complex learning experiences. At this stage, students are divided into several groups and then determine their respective job desks according to their choice. After each student has a job desk, they work on projects according to their duties; 3). Evaluation. It is considered an essential stage of PBL. The evaluation phase determines the effectiveness of a learning activity. It's used as the moment to assesses the students' learning progress. Based on the evaluation, student learning progress as well as weaknesses during the learning process can be clearly identified so that the learning improvements can be carried out appropriately. Besides, the learning effectiveness can be identified too, so that improvement plan can be managed well.

Project-based learning model has several advantages and disadvantages. According to Amelia and Aisya (2021), the advantages of project-based learning are: 1) increasing students' motivation to learn and fosters their ability to take on significant tasks; 2) developing students' positive work attitude as students are encouraged to work collaboratively on a project so that they actively listen to each other's opinions and engage in constructive negotiations to find solutions; 3) improving students' communication and social skills; 4) improving students' problem-solving skills; 5) improving students' ability to apply information across multiple disciplines; 6) improving students' ability to use technology in their studies; 7) allowing students to develop critical thinking skills as they are encouraged to actively analyze and evaluate information to make informed decisions; 8) promoting collaboration and teamwork among students as they work together to achieve a common goal; 9) helping students develop a sense of ownership and pride in their work as they see the direct impact of their efforts on the final outcome. Overall, project-based learning is a learning model that provides a holistic approach to education preparing students for success in the real world (Almulla, 2020; Aksela & Haatainen, 2019).

Meanwhile, like a coin with two sides, PBL also has its downsides. Suciani et al. (2018) stated the disadvantages of PBL include: 1) It is hard to set up the classroom so that it is an excellent place to work on a project because students have a lot of freedom, which can lead to noise and requires reasonable classroom control and management skills from the teacher; 2) Students who are not good at doing experiments or acquiring knowledge will have trouble; and 3) There may be some students who don't do as much group work. These challenges can make it difficult for teachers to ensure that all students are actively engaged and participating in the project-based learning process. Additionally, some students may struggle with the collaborative nature of PBL and may not contribute as much to group work as their peers.

However, despite these potential drawbacks, it needs to underline that the advantages of PBL far outweigh the disadvantages. Getting proper support and guidance from teachers, students can still benefit greatly from the hands-on, inquiry-based learning experience that PBL provides. Moreover, with PBL, students are able to develop their critical thinking, collaboration, and problem-solving skills through hands-on projects that mimic real-world scenarios. Besides, the freedom and autonomy provided in project-based learning can foster a sense of ownership and motivation in students, leading to deeper learning and engagement. Ultimately, project-based learning equips students with the skills and knowledge necessary to succeed in the 21st century workforce. By working on projects, students are able to apply their knowledge in a practical setting, preparing them for the challenges they will face in their future careers. Furthermore, project-based learning encourages creativity and innovation, as students are given the opportunity to explore different solutions to complex problems. Overall, project-based learning not only enhances academic achievement but also helps students develop the skills and mindset needed to thrive in a rapidly changing world (Rakhmawati, 2021; Maros et.al., 2023; Tsybulsky & Muchnik-Rozanov, 2019; Abood, 2019).

3. Method

This study is classified as descriptive quantitative research. Descriptive quantitative research involves describing, researching, and explaining observable phenomena using data collection and statistical analysis. Adopting this research type, this study aims to provide a clear snapshot of a specific phenomenon regarding EYL pre-service teachers' perceptions towards PBL, allowing for precise measurements and comparisons to be made (Alfred et al., 2014; S.K & Shubhra, 2013; Wiwik & Wahyudi, 2022).

Conducted in one of the leading private universities located in the southern part of Yogyakarta Indonesia, this study involved a total of 55 (44 female and 11 male) sixth semester students majoring at English Education, Faculty of Teacher Training in the academic year of 2022/2023 using purposive sampling technique. The selection consideration was based on the students' status that they had successfully passed TEYL Program Development (TEYL PD) course in the academic year of 2022/2023. TEYL PD course is given to students to equip them with the competence needed to teach

English to young learners. Upon completion of this course, students are expected to be ready enough to become teachers of English for young learners. With 2 credits, in terms of learning methods used, TEYL PD uses project-based learning as its main method, where students are assigned in groups to develop a complete English learning project for young learners, from planning, acting, and evaluation.

As for the research instrument, a questionnaire was used in order to cater data on the pre-service EYL teachers' perceptions of project-based learning implementation in TEYL PD course. Taking a statement of Sugiyono (2019), a questionnaire was used in this study as it's able to collect data by presenting a series of questions or statements to the respondents for their response regarding their attitudes, views, and perceptions toward social phenomena. In this study, the researchers utilized a closed questionnaire consisting of four Likert scales which were related to pre-service EYL teachers' perceptions of project-based learning implementation in TEYL PD course. The Likert scale were transformed into components or sub-components to create objects in the form of questions. The modified Likert scale was used in the form of a checklist with alternative answers: (1) Strongly Disagree, (2) Disagree, (3) Agree, and (4) Strongly Agree. The questionnaires were then distributed by using Google Form. The research participants were asked to rate their agreement with statements regarding project-based learning in TEYL PD course using the Likert scale. The data collected from the questionnaires were then analyzed to determine the overall perceptions of project-based learning implementation in TEYL PD course.

4. Findings and Discussion

4.1. Findings

The questionnaires were distributed to 55 participants who had taken TEYL PD course. Five indicators are displayed: student-teacher interaction, motivation, collaboration, problem solving, and critical and creative thinking. Each indicator has statements. They are: 5 statements in the interaction indicator, 5 statements in the motivation indicator, 5 statements in the collaboration indicator, 2 statements in the critical thinking indicator, and 3 statements in the creative thinking indicators. The following table shows the detail:

Table 1. Blueprint of the Questionnaire

Variable	Indicators	Statement	Scale
Project-based learning implementation in the TEYL course	Interaction between students and lecturer	1, 2, 3, 4, 5	
	Motivation	6, 7, 8, 9, 10	Likert
	Collaboration	11, 12, 13, 14, 15	
	Problem-Solving	16, 17, 18, 19, 20	
	Critical Thinking	21, 22	
	Creative Thinking	23, 24, 25	

1) *Interaction between students and lecturer*

Fig. 1. Questionnaire Results of Interaction

Based on the collected data as shown in Figure 1, the first 5 questions were focused on student-lecturer interaction indicator. Of the 5 questions addressed, for questions 1 and 5, which asked about the existence of student-lecturer interaction and the how the interaction helped the students, 37 (67.3%) respondents and 32 (58.2%) respondents answered "I agree" respectively. Meanwhile, for question 2 which asked about students' activeness, 32 (58.2%) respondents answered "I agree", which showed that the students actively participated in the course and dared to ask questions whenever they had difficulty in doing the project. For question 3 which confirmed about the lecturer's guidance, 25 (45.5%) respondents answered "I agree" as well, confirming that they received guidance and direction from the lecturer for the project assigned. For question 4 which asked whether they consulted with the lecturer when doing the project, 34 (61.8%) respondents chose "I agree," which means they did consult with the lecturer.
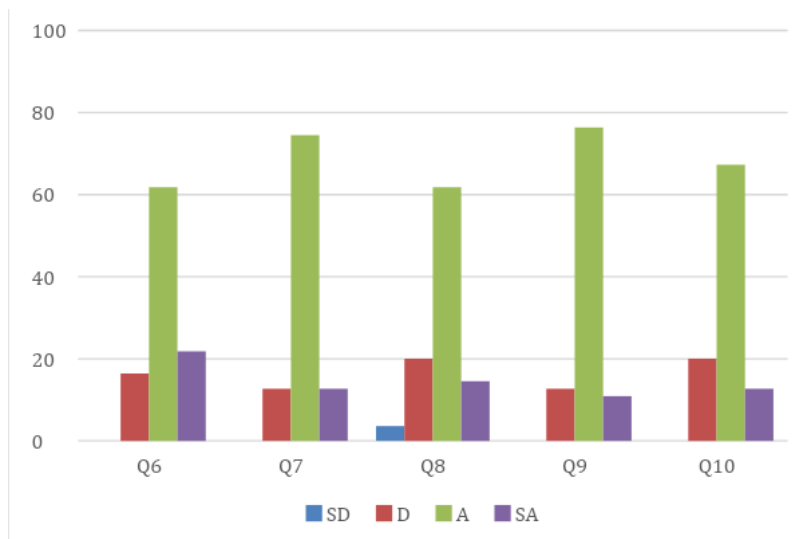
2) Motivation

Fig. 2. Questionnaire Results of Motivation

As displayed in Figure 2, questions 6-10 dealt with motivation indicator. For question 6 which asked about their feeling about the course, 34 (61.8%) respondents answered "I agree" meaning that they felt happy joining TEYL PD course and doing the project. This was followed by questions 7, 8 and 9 where 41 (74.5%), 34 (61.8%), and 42 (76.4%) respondents answered "I agree" respectively confirming that they felt excited to do project assignments in the TEYL PD course, didn't feel bored when doing it, and were interested in participating in the learning activities using the PBL. For question 10 which asked about their motivation, 37 (67.3%) respondents confidently answered "I

agree" signaling that they were motivated to join the course as they were tasked to create something new with the projects they worked with.
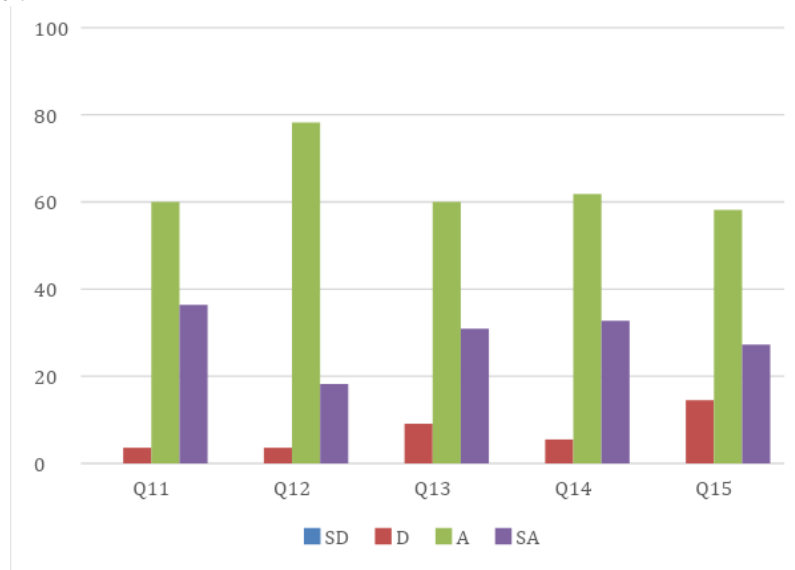
3) Collaboration

Fig. 3. Questionnaire Results of Collaboration

In terms of collaboration, based on Figure 3, the results showed: for question 11 there were 33 (60%) respondents who chose "I agree." They felt that good collaboration contributed to a successful project outcome. For question 12, it showed that 43 (78.2%) respondents chose "I agree" which showed that they were provided with helpful ideas and suggestions when discussing in groups. Question 13 reported that 33 (60%) respondents answered "I agree" stating they learned to be assertive when brainstorming with group members. As for question 14, it showed that 34 (61.8%) respondents chose "I agree", which showed that they tried doing the TEYL Program Development group assignments well. Meanwhile the last question Q15 indicated that 32 (58.2%) respondents agreed that they were brave to take on specific tasks in the group. Overall, the data from the survey reflects a high level of engagement and participation among respondents in group activities. The results suggest that respondents were actively involved in discussions and assignments, demonstrating a willingness to collaborate and contribute to the group's success.
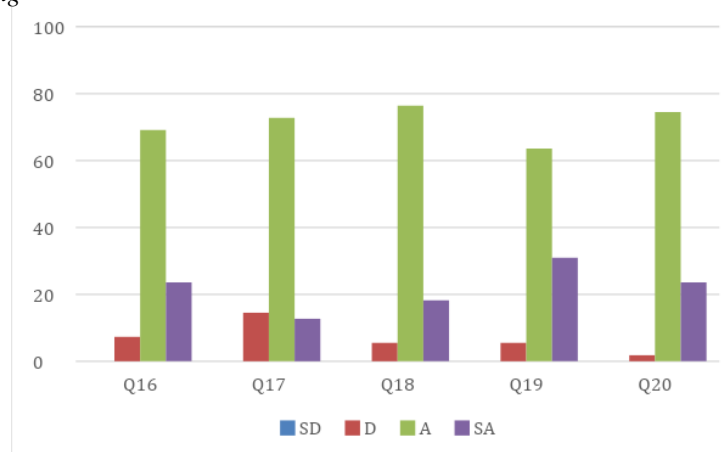
4) Problem-solving

Fig. 4. Questionnaire Results of Problem-Solving

Figure 4 showed data on problem solving indicator, consisting of questions 16 – 20. Question 16 and 17 reported there were 38 (69.1%) and 40 (72.7%) respondents who chose "I agree" respectively showing that the respondents could solve problems when they worked on projects, and they provided solutions when their groups faced difficulties when completing TEYL PD projects. Question 18, 42 respondents (76.4%) chose "agree" confessing that they were able to overcome difficulties in completing the project assignments. For questions 19 and 20, the total number of respondents who chose "I agree" was 35 (63.6%) and 41 respondents (74.5%) respectively indicating that they tried to get the job done consistently and they felt they could improve the assigned project because of the guidance and suggestions from the lecturer.
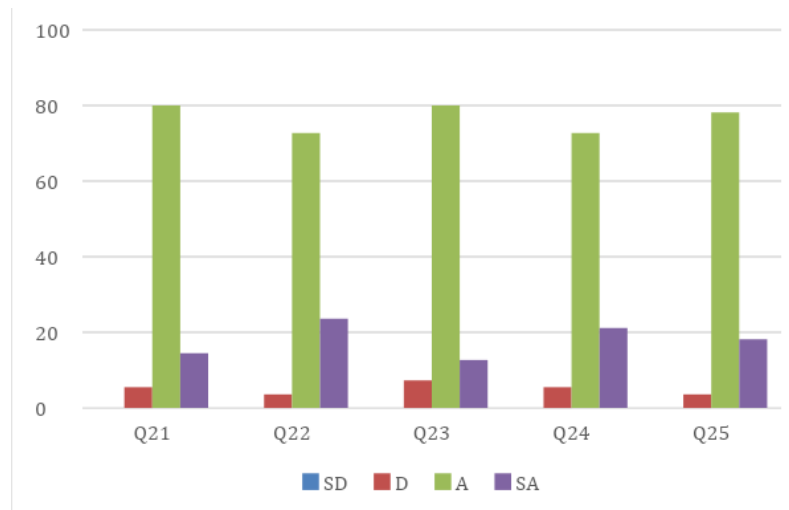
5)   *Creative and critical thinking*

Fig. 5. Questionnaire Results Creatively and Critically Thinking

Figure 5 shows data on critical and creative thinking indicators. Of total 5 (21-25) questions asked, there were: 44 respondents (80%) chose "I agree" for question 21; 40 respondents (72.7%) who chose "I agree" for question 22; 44 respondents (80%) who chose "I agree" for question 23; 40 respondents (72.7%) who chose "I agree" for question 24; and 43 respondents (78.2%) who chose "I agree" for question 25. Overall, the majority of respondents tended to agree with the all statements presented in questions 21 – 25. The high percentage of agreement indicates a strong consensus among participants on these particular issues.

6)   *Recapitulation of Respondents' Perception*

Table 2 summarizes respondents' perception of project-based learning implementation in TEYL PD course underlying 5 indicators of interaction between respondents and lecturer, motivation, collaboration, problem-solving, and critical and creative thinking ability.

Table 2. Descriptive Statistic of Respondents' Perception

No	Indicator of Perception	Minimum	Maximum	Mean	SD
1	Interaction between respondents and lecturer	10	20	15.60	2.006
2	Motivation	10	20	14.84	2.062
3	Collaboration	12	20	16.09	1.849
4	Problem-Solving	14	20	15.75	1.624
5	Thinking critically and creatively	12	20	15.65	1.542
	TOTAL	58	100	77.93	9.083

Based on data of Table 2, data of the mean score can be summed up as follows: 15.60 for interaction; 14.84 for motivation; 16.09 for collaboration; 15.75 for problem-solving; and 15.65 for critical and

creative thinking, which summed up the total score of 79.93. Of these data, it can be concluded that the respondents had a positive perception towards the PBL because the mean score gained was between 70 – 81. It is based on the information shown through Table 3 which is used as the reference of the classifications of respondents' perception of project-based learning implementation in the TEYL PD course. From Table 3, it can be summarized that student respondents have a very positive perception if the score is above 81. Meanwhile, if the respondents have scores between 70 and 81, they are classified as having positive perceptions, and if the respondents have scores between 57 and 69, they are classified as having neutral perceptions.

Table 3. Classification of Student's Perception

Scale Number	Category Score
X > 81	Very Positive
70 - 81	Positive
57 - 69	Neutral
45 - 56	Negative
X < 44	Very Negative

Table 4. Classification of Student's Perception

Scale Number	Category Score	Number of Respondents
>81	Very Positive	18
70-81	Positive	33
57-69	Neutral	4
45-56	Negative	0
44<	Very Negative	0
Total		55

Based on Table 4, it can be summarized that in total, there were 18 respondents (33%) who had a very positive perception, 33 respondents (60%) with a positive perception, 4 respondents (7%) with a neutral perception, and no respondents had a negative perception. With this recapitulation, it can be concluded that respondents' perception of project-based learning implementation in the TEYL PD course was positive. Figure 6 shows the respondents' perceptions of project-based learning implementation in the TEYL PD course.
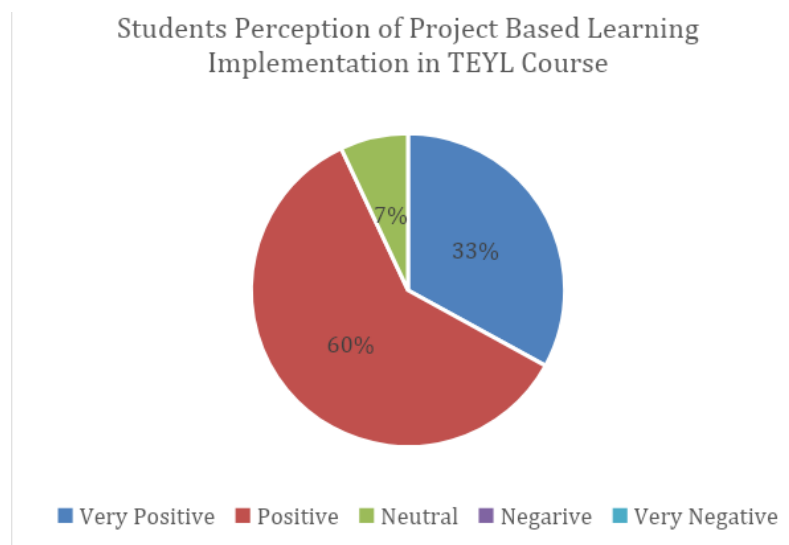

Fig. 6. Respondents' Perception of Project-Based Learning Implementation

4.2. Discussion

Based on the research findings, it shows that pre-service EYL teachers' perception of project-based learning in TEYL-based course is positive. This is clearly evidenced by the results of the distributed questionnaire, which shows that 18 respondents (33%) have a very positive perception, 33 respondents (60%) have a positive perception, 4 respondents (7%) have a neutral perception, and no respondents have a negative perception. These findings are consistent with the research findings reported by Mayuni et.al, (2019); Pen (2021); and Suhartini et al. (2021), who reported that from the data collected through a questionnaire, it's found that there is positive feedback on the integration of project-based learning in English classroom activities. Moreover, they also found out that PBL plays a role in enhancing the improvement of English skills and the acquisition of 21st century skills, which is in line with the findings of studies by Henny (2020); Bassam and Bjørn, (2020); and Ng-Hee (2018), who stated that project-based learning has a positive effect on student learning outcomes with a tendency for most students to score well and perform better. Overall, the findings from this study suggest that project-based learning is a beneficial approach to integrating English language learning in the classroom. The positive perception and feedback support the notion that PBL can have a significant impact on student learning motivation and outcomes. As more research continues to support these findings, educators may consider implementing more project-based learning activities in their English classes, including classes of pre-service EYL teachers in order to enhance their engagement and achievement. While the positive feedback on project-based learning is valuable, it is important to consider that the lack of negative perceptions could be due to social desirability bias or other factors influencing respondents' responses. Additionally, the alignment with previous research does not guarantee the effectiveness of project-based learning in all contexts or for all students.

In terms of the affective aspect, based on the findings of the study, the pre-service EYL teachers perceive positively the implementation PBL in TEYL PD course. They agree that PBL use makes them feel happy, interested, and excited towards the learning they take. Through the survey, they also report feeling a sense of accomplishment and pride when completing project-based assignments in groups, which contributed to their overall motivation and engagement. Additionally, they express that project-based learning allows them to develop a deeper understanding of the material and improves their critical and creative thinking skills. They enjoy being under project-based learning implementation in TEYL PD course because it provides new experiences for them. As the TEYL projects they work with are carried out in groups so they need to exchange ideas with peers, and be creative as well as think critically at the same. All these moments of learning are what make them feel excited and happy with PBL (Railsback, 2002; Newell, 2003; Yu-Ping, 2002). The study by Nugraheni (2018) voiced the same message summarizing that project-based learning strongly supports students' creativity. And with this creativity, the students are able to search and find new ideas and then apply them to solve problems. Other research studies conducted in the area of PBL also supported the notion reporting that project-based learning project-based learning not only enhances critical thinking skills but also fosters a sense of ownership and autonomy in students (Maor et.al., 2023; Trisdiono et.al., 2019; Suradika et.al., 2023). This sense of ownership motivates students to take charge of their learning and engage more deeply with the material, leading to improved retention and application of knowledge. In sum, project-based learning not only cultivates positive feelings, creativity and critical thinking but also creates a fulfilling and enriching educational experience for students.

Another affective aspect that is positively perceived by the respondents in this study is that the use of project-based learning makes them more motivated. The majority of respondents agree that working together on the TEYL project assigned makes them excited and happy which finally increases their learning motivation. In addition, being encouraged to cooperate with the team to generate creative ideas manifesting in a product, and being able to finish the project and get success and specific results from the project have been motivated them as well. Insyasiska et al. (2015) highlighted this point stating that project-based learning motivates students to independently find information from various sources, such as a team of experts, the environment, media, and the internet (Shin, 2018; Wijnia et.al., 2024; Kokotsaki et.al., 2016).

Collaboration and interaction with both peers and teachers are other indicators of project-based learning that respondents have a positive perception of. The majority of the respondents perceive that working together in groups allows for a more dynamic learning experience and helps them develop important teamwork and communication skills. They also appreciate the opportunity to interact with

their peers and teachers, which enables them to learn from one another's perspectives and experiences. Referring to the survey result, it signals that collaboration and interaction are seen as crucial components of project-based learning that enhance the overall educational experience. Moreover, they also agree that the ability to collaborate effectively is seen as a valuable skill that will benefit them in their future careers. This supports the results of the studies by Vogler et.al. (2018) and Soboleva and Karavaev (2020) which collectively reported that project based learning enables students to develop their communication and teamwork skills.

Apart from the positive perceptions of PBL implementation data collected through this study, another thing to note is the phenomenon that very few respondents had neutral perceptions and no respondents had negative perceptions. This is worth noting because, of course, no learning method is all-round and flawless. As for this research, few respondents who showed neutral perceptions of PBL implementation in TEYL PD course indicated that they were specifically neutral only with the issues related to interaction and collaboration. This is in line with the study by Ayuningtyas et al. (2023) which reported that though PBL can positively impact students, still, some students mention that it's is uncomfortable, especially for those who do not like interacting with many people or have an introverted personality type. Recognizing that some students may struggle with the collaborative nature of PBL, in the context of pre-service EYL teachers training program, it is important to consider these varying perceptions and preferences when implementing PBL. Lecturers should provide additional support and guidance to ensure that all these pre-service EYL teachers are able to benefit from PBL. By understanding and accommodating different perspectives will lead to a more successful and inclusive learning experience for all participants. However, while it is important to consider varying perceptions and preferences, providing additional support and guidance may not always be feasible due to time and resource constraints in a training program. Therefore, more and further research on this issue is needed as to explore potential solutions and strategies for effectively implementing PBL in pre-service EYL teacher training programs. With continuous improvement, research and innovation, pre-service EYL teachers can fully harness the benefits of PBL to enhance their learning and teaching experiences.

5. Conclusion

Based on the data analysis, it's concluded that, the pre-service EYL teachers' perceptions toward implementation pf project-based learning (PBL) in TEYL based course is positive. Of the total 55 respondents, 18 respondents (33%) had a very positive perception, 33 respondents (60%) had a positive perception, 4 respondents (7%) had a neutral perception, and no respondents had a negative perception. These results indicate that a majority of pre-service EYL teachers have a favorable view of incorporating project-based learning into TEYL courses. The high percentage of very positive and positive perceptions suggests that these future educators see the value and benefits of PBL in teaching English to young learners. The lack of negative perceptions further reinforces the idea that PBL is a well-received teaching approach among pre-service EYL teachers. However, the absence of negative perceptions does not necessarily mean that all pre-service EYL teachers fully understand or are prepared to effectively implement project-based learning in their teaching practice. It is possible that some respondents may have had limited exposure or experience with PBL, leading to a lack of negative feedback. Further research on this is highly necessary.

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Declarations

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