ELS Journal on Interdisciplinary Studies in Humanities
Volume 6 Issue 4, 2023
DOI: https://doi.org/10.34050/elsjish.v6i4.32151
Homepage: journal.unhas.ac.id/index.php/jish

The Implementation of PjBL in ICT for English Language Teaching

Firmansyah[1], Ija Try Saputri Kadir[1], Yetty[1],Sri Ayu Budi Lestari[1]

[1] Universitas Khairun, Indonesia
*Correspondence: firmansyah@unkhair.ac.id

ABSTRACT

The objective of this research is to investigate how the students perceive to the implementation of PjBL in ICT for English language teaching. This study applied quantitative research where questionnaire about students' interaction, motivation, understanding, problem solving, and suitability of the subject was administered to the students. The result of this research was show that the implementation of PjBL allow the students have good interaction to other groups member. It can improve their communication and teamwork. Second, PjBL also can motivate the students to explore the subject by giving them projects so the students enthusiastic in join the class. Third, PjBL can ease them to understand the subjects given by making the projects so they can directly practice. Fourthly, their problem solving can improve because in having the projects, they must solve the problem in ICT for English language teaching. And the last is the respondents perceive that PjBL are suitable implemented in ICT for English language teaching class.

ARTICLE HISTORY
Published December 17th 2023
Check for updates

ELT; ICT; PjBL.

1. Introduction

Higher education institutions have recently focused on teaching students both hard skills, such as professional and cognitive knowledge (Vogler et al., 2018; Al-Obaydi & Rahman, 2021), and soft skills, such problem-solving and teamwork (Casner-Lotto & Barrington, 2006; Prihandoko et al., 2021). Nevertheless, due to the dominance of traditional learning, where teachers serve as "the transmitter of the knowledge" and students serve as "the receptor of the information," achieving these skill-related goals is difficult (Alorda et al., 2011; Juanid et al., 2023; Rahman & Weda, 2018). Students find it challenging to participate completely in educational activities, which could result in a superficial understanding of disciplinary information. In addition, universities, and research universities in particular, place a greater emphasis on developing students' research skills than on developing their professional or transferable skills. As a result, there may be a disconnected between what kids learn in school and what they require for employment (Holmes, 2012). It is argued that in order to remedy this scenario, students should be given the chance to engage in actual problem-solving and knowledge building in legitimate professional situations.

The Law on National Education System (Sisdiknas) in Indonesia reflects the Indonesian government's seriousness about education (Undang-Undang Nomor 20, 2003). Education is intended to assist Indonesians attain their full potential as moral, knowledgeable, and responsible human beings capable of competing with other nations in the application of science and technology, according to Article 3 of the Indonesian Constitution (Undang-Undang Nomor 20, 2003).

The Indonesian curriculum of education allows us to implement creative learning based on the law on National Education System (Sisdiknas). Group discussions, case studies, cooperative learning, simulations, project-based learning, discovery learning, problem-based learning, or learning models that might increase learning outcomes are examples of innovative learning models, according to Permenristekdikti Number 44 of 2015. This model can also be used in the language learning process because group interaction and communication across groups allow students to maximize their potential.

Critical thinking abilities should be taught to students, according to the core standards and structure of the curriculum in Indonesia (Peraturan Menteri Pendidikan dan Kebudayaan Republik Indonesia Nomor 70, 2013). Critical thinking skills and cognitive function are inextricably linked. These competencies are part of the learning outcomes for

higher-order thinking categories (FitzPatrick & Schulz, 2015; Paul & Elder, 2014; Hamuddin et al., 2022). Critical thinking includes giving opinions, judging, observing, and expressing (Fisher, 2011).

Project-based learning is a desirable strategy for achieving this objective. The impacts of PjBL and instructors' direct instruction on students' academic progress in elementary, secondary, and university education were contrasted in Chen & Yang's (2019) review. According to this study, PjBL refers to a learning process in which students are actively involved in creating goods and working on real-world projects. The outcomes showed that PjBL was more effective than direct instruction at improving students' academic performance. In addition, Lee (2014) argue that the study of PjBL in higher education has left. Therefore, the goal of the current study is to measure how the implementation of PjBL used in higher education.

Project-based learning (PjBL) is an inquiry-based educational approach that involves learners in the building of knowledge by having them complete important tasks and create useful products (Brundiers & Wiek, 2013; Krajcik & Shin, 2014). A driving question, the emphasis on learning objectives, engagement in educational activities, student cooperation, the use of scaffolding technology, and the production of tangible artifacts are six characteristics of PjBL that Krajcik and Shin identified. In order to successfully integrate, apply, and construct their knowledge, learners must collaborate to solve real-world challenges. In most cases, as facilitators, instructors and community members (such as clients) offer feedback and support to learners to aid in their learning.

In a number of review papers, PjBL in post-secondary education has been primarily discussed. Helle et al., (2006) investigate PjBL in practice and how it affects students' learning. The majority of the studies that were looked at in terms of the practice were restricted to course descriptions in terms of course scope, instructor requirements, and team size, according to the authors' findings. Regarding the impact, the research discovered that few studies examined the relationship between PjBL and student learning in relation to either cognitive or affective outcomes. Ralph (2015) analyzed fourteen studies that used PjBL in STEM teaching in different research. It was discovered that PjBL accelerated the growth of learners' knowledge and skills. Also, students believed that PjBL promoted group communication and bargaining. Yet, other pupils claimed they lacked teamwork motivation. In addition, despite the fact that students also experienced difficulty with PjBL, several research revealed that students' academic knowledge, motivation, and skill improved following PjBL. However, this research had limitation, the author only focuses on how the students perceive to the implementation of PjBl.

2. Methodology

This study applies quantitative research where questionnaire was administered to 19 students who were joining ICT in English Language Teaching. After finishing their classes in week 14, students responded to this questionnaire.

It had five parts that were designed to elicit comments from students about project-based learning and the pertinent soft skills, based on the following: 1) Students interaction, 2) Motivation, 3) Understanding, 4) Problem solving, and 5) Suitability of the subject.

A Likert scale of 1 to 5 is used in the survey, with 1 denoting "Strongly Disagree" and 5 denoting "Strongly Agree."Statements in Section evaluate how students perceive about the implementation of PjBL in their class. This research conducted in Universitas Khairun. The participants of this research were English department students, Faculty of Teacher Training and education. The study applied purposive sampling technique to select the participant. Purposive sampling technique is one of the techniques used to determine the participant by considering something (Creswell, 2014). Furthermore, according to Creswell, purposive sampling technique is purposed because it intentionally selects individuals and sites to learn or understand the central phenomenon.

3. Result and Discussion

This section summarizes the research findings based on the five components: students' interaction, motivation, understanding, problem solving, and Suitability of the subject. The findings present how the students' perception on the implementation of project-based learning in ICT for English Language Teaching class.

3.1. Students' response on students' interaction

This section presents 4 statements about how students' interaction in the implementation of PjBL in ICT for English Language Teaching subject. The students' response can be seen in the table 1 below:

Table 1. Students' Interaction

No	Statements	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
1.	I have a discussion with other member while doing my project.	-	-	5.3	42.1	52.6
2.	I give question and response to other group member	-	-	5.3	36.8	57.9
3.	I am actively to exchange idea with group member	-	-	5.2	47.4	47.4
4.	I did a good communication to other group member in doing the project	-	-	5.3	57.9	36.8

After nearly 14 weeks of the implementation of PjBL, at the end the students were asked to respond the questionnaire about their interaction during having the project. The result of questionnaire shows that 94.7% students agree that they have a discussion in doing their project. The students also active to give question and answer to other group member, it can be seen in the table above that 94.7% students agree to the statement actively in giving answer and question. Furthermore, 94.8% students agree that they active in sharing about their idea to other group member. In addition, the students have a good communication in doing the project, the data show that 94.7% answer said that agree to the implementation of PjBL makes them good in communication.

This finding indicates that students successfully build their interaction in groups to manage the project work's given. The implementation of this method is to build communication among the students through text, images, and videos (Zen & Ariani, 2022). Rosen (1998) highlights that learners formulate questions as a group, divide the work among them, and use a variety of sources, such as the internet or guest speakers, to find answers. According to Rosen (1998), the criteria for project work are that learners work in groups to select topics of interest, they may use the teacher as a resource, but for the most part, they create their own knowledge.

3.2. Students' response on motivation

This section presents 4 statements about how PjBL motivate the students in learning ICT for English Language Teaching. Table 2 shows the students' response about their motivation after implemented PjBL in ICT class:

Table 2. Motivation

No	Statements	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
1.	I am always enthusiastic when working on project assignments	-	-	15.8	47.4	36.8
2.	I am always interested to the projects given	-	-	15.8	47.4	36.8
3.	PJbL encourages me to be active in the learning process	-	-	21.1	52.6	26.3
4.	PJbL can improve my skills in the field of ICT	-	-	-	52.6	47.4

In terms of motivation, 84,2% of respondents feel that they enthusiastic when working on project assignments. And they were interested to the projects given, over 84.2% agreed, while 15.8% were unsure. The participants also feel encourage and active in the learning process, total of 78.9% responds said PjBL encourages them to be active in

learning process. They also have improved in the skill of ICT, the result of questionnaire show that 47.4% students strongly agree and 52.6% agree. It means that all of the students have improved their skill in ICT.

The findings above show that the implementation of PjBL can improve their motivation in learning ICT. The researcher indicates that the implementation of PjBL can motivate the students in learning ICT, especially in improving their skill. Ralph (2015) stated that PjBL was found to improve the progress of both learners' knowledge and skills. Currently, the learning perspective emphasizes not only in cognitive, but also students' motivation which are important aspects for successful in their learning and achievement (Di Serio et al., 2013). It is important for the students because their motivation can give the spirit in learning, and also they feel enjoy the subject given if they are motivated.

3.3. Students' response on understanding

This section consists of 4 statements about how the students' understanding after the implementation PjBL in ICT for English Language Teaching class. Table 3 shows the students' response about their understanding after implementing PjBL in ICT class:

Table 3. Understanding

No	Statements	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
1.	I am able make the projects well	-	-	5.3	57.9	36.8
2.	I am able to identify the problem in project	-	-	10.5	73.7	15.8
3.	I am able to implement the project in ELT	-	-	5.3	57.9	36.8
4.	I am able to explain the project that has been done	-	-	15.8	63.1	21.1

The findings above demonstrate the understanding of the students about ICT. Most of respondents (94.7%) believe that they were able to make their project well. According to the results of students' identification of the problem in the project, 89.5% of respondents were also able to identify the problem in a project. The students also understand how to implement the project in English language teaching, there were 94.7% of respondents agree with this statement. Additionally, 84.2% of respondents can explain the project that had been done.

The result of the findings above indicates that the implementation of PjBL can improve their understanding about ICT. The data above show that the students can demonstrate their project very well. They can identify the problem in their project. The students also know how to implement the project in English language teaching. And at last, the students are able to explain their project.

3.4. Students' response on problem solving

This section consists of 4 statements about how the students solve the problem in doing their projects in ICT for English Language Teaching class. Table 4 shows the students' response about their problem solving after implementing PjBL in ICT class:

Table 4. Problem Solving

No	Statements	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
1.	I am able to identify the problem in project given	-	-	5.3	68.4	26.3
2.	I am able to explore the project given	-	-	10.5	68.4	21.1
3.	I am able to arrange the strategy in doing the	-	-	26.3	52.6	21.1

	project					
4.	I am able to make innovation in the project given	-	5.3	10.5	52.6	31.6

As for the problem solving of the students, more than 94% respondents agree that they were able to identify the problem in the project given. They are also able to explore the project, there were 89.5% respondents agree with this statement. In doing the project, 73.8% were able arrange the strategy to solve the problem in the project. In addition, 84.2% of the respondents were able to make innovation in their project.

Concerning problem-solving abilities, the findings demonstrate significant results of the students in identifying the problem, as well as in exploring the project. This project work has allowed students to find some new ideas while looking for answers to challenges encountered at their working assignments. This is further corroborated by the high score of the respondents in arranging the strategy from the findings acquired by students in their project work. And also the students were able to create an innovation through the project. This activity can improve the students' creativity in learning process by creating new innovation and ideas.

3.5. Students' response on Suitability of the subject

This section presents 3 statements about how the students' response on Suitability of the subject in ICT for English Language Teaching class. Table 5 shows the students' response about Suitability of the subject in ICT class:

Table 5. Suitability of the subject

No	Statements	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
1.	The project given is suitable to ICT subject	-	-	-	36.8	63.2
2.	The project given relate to learning media	-	-	-	26.3	73.7
3.	The implementation of PjBL is suitable to ICT class	-	-	5.2	47.4	47.4

The findings above demonstrate the suitability of the subject during project work. All of the respondents agree that the project was suitable for ICT subject, 63.2% strongly agree and 36.8% agree. Same as the project was suitable for ICT, the respondents also perceive that the project relate to learning media in ICT for English language teaching, 73.7% strongly agree and 26.3 agree. Additionally, 94.8% respondents agree to the implementation of PjBL suitable to ICT class.

This finding indicates that PjBL were successfully applied in ICT class because the respondents agreed that the project work were given to them suitable. In the implementation of PjBL was success, all the students agreed that project were suitable to the subject and it was related to the ICT class. It indicates that the implementation of PjBL can improve students' proficiency in ICT.

4. Conclusion

To conclude the findings of this research, there were five categories of the implementation of PjBL in ICT for English Language Teaching. The first is students interaction, the result of this research show that the implementation of PjBL allow the students have good interaction to other groups member. It can improve their communication and teamwork. Second, PjBL also can motivate the students to explore the subject by giving them projects so the students enthusiastic in join the class. Third, PjBL can ease them to understand the subjects given by making the projects so they can directly practice. Forth, their problem solving can improve because in having the projects, they must solve the problem in ICT for English language teaching. And the last is the respondents perceive that PjBL are suitable implemented in ICT for English language teaching class.

References

Al-Obaydi, L. H., & Rahman, F. F. (2021). The Use of Action Research in EFL Socio-professional Context: Students-teachers' Perceptions. *ELS Journal on Interdisciplinary Studies in Humanities, 4*(2), 232-240.

Alorda, B., Suenaga, K., & Pons, P. (2011). Design and evaluation of a microprocessor course combining three cooperative methods: SDLA, PjBL and CnBL. *Computers & Education, 57*(3), 1876-1884.

Brundiers, K., & Wiek, A. (2013). Do we teach what we preach? An international comparison of problem-and project-based learning courses in sustainability. *Sustainability, 5*(4), 1725-1746.

Casner-Lotto, J., & Barrington, L. (2006). *Are they really ready to work? Employers' perspectives on the basic knowledge and applied skills of new entrants to the 21st century US workforce*. Partnership for 21st Century Skills. 1 Massachusetts Avenue NW Suite 700, Washington, DC 20001.

Chen, C.-H., & Yang, Y.-C. (2019). Revisiting the eff ;ects of project-based learning on students' academic achievement: A meta-analysis investigating moderators. *Educational Research Review, 26*, 71–81. https://doi.org/10.1016/j.edurev.2018.11.001.

Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications.

Di Serio, Á., Ibáñez, M. B., & Kloos, C. D. (2013). Impact of an augmented reality system on students' motivation for a visual art course. *Computers & Education, 68*, 586-596.

Fisher, R. M. (2011). A critique of critical thinking: Towards a critical integral pedagogy of fearlessness. *NUML Journal of Critical Inquiry, 9*(2), 92.

FitzPatrick, B., & Schulz, H. (2015). Do curriculum outcomes and assessment activities in science encourage higher order thinking?. *Canadian Journal of Science, Mathematics and Technology Education, 15*, 136-154.

Hamuddin, B., Syahdan, S., Rahman, F., Rianita, D., & Derin, T. (2022). Do They Truly Intend to Harm Their Friends?: The Motives Beyond Cyberbullying among University Students. *In Research Anthology on Combating Cyber-Aggression and Online Negativity* (pp. 775-788). IGI Global.

Helle, L., Tynjälä, P., & Olkinuora, E. (2006). Project-based learning in post-secondary education–theory, practice and rubber sling shots. *Higher education, 51*, 287-314.

Holmes, L. M. (2012). The effects of project based learning on 21st century skills and no child left behind accountability standards (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (3569441).

Junaid, S., Muzzammil, A., Mujizat, A., & Andini, C. (2023). Onomatopoeia Variation Among Cultures: An Exploration in Selected Children's Story Books. *ELS Journal on Interdisciplinary Studies in Humanities, 6*(4), 658-664.

Krajcik, J. S., & Shin, N. (2014). *Project-based learning*. In R. K. Sawyer (Ed.). The Cambridge handbook of the learning sciences (pp. 275–297). (2nd ed.). https://doi. org/10.1017/CBO9781139519526.018.

Lee, J. S., Blackwell, S., Drake, J., & Moran, K. A. (2014). Taking a leap of faith: Redefining teaching and learning in higher education through project-based learning. *Interdisciplinary Journal of Problem-Based Learning, 8*(2), 2.

Paul, R., & Elder, L. (2014). Critical thinking: Intellectual standards essential to reasoning well within every domain of human thought, Part 4. *Journal of Developmental Education, 37*(3), 34.

Prihandoko, L. A., Anggawirya, A. M., & Rahman, F. (2021). Students' Perceptions Towards Autonomous Learners Concept in Academic Writing Classes: Sequential Mixed-Method. *In International Joined Conference on Social Science* (ICSS 2021) (pp. 487-491). Atlantis Press.

Rahman, F., & Weda, S. (2018). Students' perceptions in appreciating English literary works through critical comment: A case study at Hasanuddin University and Universitas Negeri Makassar. *Asian EFL Journal, 20*(3), 149-172.

Ralph, R. A. (2015). Post secondary project-based learning in science, technology, engineering and mathematics. *Journal of Technology and Science Education, 6*(1), 26–35. https://doi.org/10.3926/jotse.155.

Rosen, D. (1998). *Inquiry projects*. Available at [http://www2.wgbh.org/mbcweis/ltc/alri/I.M.html]

Vogler, J. S., Thompson, P., Davis, D. W., Mayfield, B. E., Finley, P. M., & Yasseri, D. (2018). The hard work of soft skills:

augmenting the project-based learning experience with interdisciplinary teamwork. *Instructional Science, 46*, 457-488.

Zen, Z., & Ariani, F. (2022). Academic achievement: the effect of project-based online learning method and student engagement. *Heliyon, 8*(11).