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Evaluating the Impact of Project-Based Learning in an ESP Course for IT Students

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Abstract

This study explores the implementation and outcomes of Project-Based Learning (PjBL) in an English for Specific Purposes (ESP) course for Information Technology students. Using a qualitative descriptive design, the study analyzes video projects submitted by students, observational checklists, and semi-structured interviews. The findings reveal that PjBL not only improves students' professional English communication skills but also enhances creativity, collaboration, and digital literacy. Students demonstrated active engagement in real-world problem-solving tasks, with increased responsibility and confidence. The study contributes empirical evidence to ESP pedagogy and recommends further integration of technology-enhanced PjBL in domain-specific English instruction. The implications for learning process in ESP class and future research directions are discussed.

INTRODUCTION

In today's globalized world, the demand for education that cultivates critical thinking, collaboration, and real-world application is paramount. Project-Based Learning (PjBL), rooted in constructivist theory and influenced by the progressive educational philosophy of John Dewey (1938), is an instructional approach designed to meet this demand by engaging students in authentic, problem-solving tasks. This method encourages learners to take ownership of their education through the development of meaningful projects that closely simulate real-life contexts.

In the context of English for Specific Purposes (ESP), ESP is English learning branch designed to fulfil students' specific needs based on their professional or academic field (Hutchinson & Waters, 1987). The main focus of ESP is to provide relevant material with students' professional context, such as English for business, for engineering, medical and others. In ESP class, students learn English not only as common communication, but also as a tool for achieving specific goals in their work or study field. Dou et al. (2023) stated that ESP as approach of language teaching learning must evolve according to change of professional and academic needs which emphasize on the importance of flexibility in designing curriculum to fulfill epoch demand.

PjBL has gained traction as an effective strategy to bridge language instruction with field-

specific competencies. ESP is a branch of language teaching tailored to meet learners' academic or professional communication needs, in contrast to general English instruction which emphasizes broad language competence. ESP focuses on language use in specific disciplines, making instruction more targeted, contextualized, and immediately relevant to students' future career or study environments in domains such as business, engineering, and medical fields (Hutchinson & Waters, 1987). Integrating PjBL into ESP instruction enables learners to acquire technical vocabulary, professional communication strategies, and contextual understanding through the completion of practical tasks relevant to their future workplaces, according to Stoller (2012). Kavlu (2020) concluded that PjBL and ESP can support and assist one another, because the students should activate and link their existing knowledge with the new information to obtain knowledge formation.

For Information Technology (IT) students, English proficiency is indispensable. The language of technology—from software documentation to system configuration—is predominantly English. As such, ESP instruction for IT learners must go beyond general language skills to include the ability to articulate technical processes, troubleshoot issues, and collaborate using English. PjBL serves this purpose by fostering active involvement in real-life projects, such as producing technical support videos, engaging in coding tutorials, or simulating professional IT scenarios. Implementing PjBL in this ESP class is included: 1) Determining the topic and driving question (students choose the topic related to their major; topic is about IT and question is provided, *"What should I do when getting confused with coding system work?"*); 2) Planning the project (students and lecturer discuss the goal of project, time, and division of tasks; Students understand the target language they want to master (vocabulary, grammar, writing style, etc.); 3) Research and inquiry (Students search for data or conduct relevant observations/literature reviews; They develop reading and listening skills in specific contexts); 4) Developing the product (students create presentation and dialog videos; students focus on using English appropriately in the context of profession); 5) Collaboration and revision (students collaborate in a team, give feedbacks, and revise the project result; lecturer roles as a facilitator and language tutor; 6) Presentation (the final project is presented using English and upload it to YouTube channel to be viewed by other people); and 7) Reflection and Assessment (students reflect on the learning process and difficulties faced; lecturer evaluates the achievement of project based on the language, content, and collaboration criteria).

Students can learn two different courses in one project, related to their major and English itself. The project given is about problems related to IT, but using English as a means for communicating the solution and presenting/making dialog as final project that must be submitted. Besides, this project also is integrated with latest technology where students must use LMS and creating digital project like video that must be uploaded on their YouTube channel.

PjBL emphasizes several pedagogical principles: learning by doing, collaboration, integration of theory and practice, contextual learning, and learner autonomy (Asbjornsen, 2015). These principles align closely with the goals of ESP, especially in disciplines where students are expected to demonstrate both linguistic and domain-specific expertise. In this study, PjBL was applied in an ESP class for IT majors, wherein students were required to complete English-language projects related to their technical knowledge. Dewey in Asbjornsen (2015) gave the ideas on project-based learning involving: 1) learning by doing, the most effective learning happens when students are actively involved in practical and relevant activities in their real life; 2) education as a social process, PjBL involves collaboration among the students to reach the goals together, develop communication competence, and social skill; 3) integration of theory and practice, project in PjBL often needs students to comprehend the theoretical

concepts before applying in real life situation; 4) learning contextualization, PjBL provides the context by presenting real problems of challenges for students to solve; and 5) learner-centered education, PjBL gives the freedom for students to explore the project based on their own interest and to make learning process meaningful. Although Dewey did not explicitly mention "Project-Based Learning," the core concepts and values of PBL are deeply rooted in Dewey's educational philosophy. He wanted students to be active, critical learners, and engaged in meaningful experiences that directly relate to their lives. Project Based Learning (PjBL) is a student-focused learning approach, where students are involved in the investigation process (Handrianto & Rahman, 2018). This method includes data-based decision making, collaborative analysis between students, and is oriented towards real product results and document preparation. According to Saputro & Rahayu (2020), the Project-Based Learning (PjBL) model encourages students to learn and create a work. This approach is able to increase student motivation in the learning process, improve their ability to solve problems, and strengthen cooperation in groups.

The novelty of this study lies in its application of PjBL to a blended-learning ESP environment where students created video projects to solve IT-related problems in English. The integration of multimedia, digital collaboration tools, and field-specific content distinguishes this approach. Moreover, the study examines the pedagogical outcomes of PjBL in enhancing language proficiency, creativity, collaboration, and digital literacy among first-year IT students.

A previous study related to PjBL conducted by Kristianti & YP (2023) entitled The Effectiveness of Project-Based Learning (PBL) for Engineering Students in ESP Class showed the result that this approach is effective to be implemented in Engineering students. This approach is regarded to be able to boost students' motivation, improve their confidence and make them well-prepared to encounter real future projects. In line with them, the study conducted by Indrasari (2016) drew the conclusion that PjBL is regarded to be effective way for pre-service teacher to stimulate their competence in designing the materials in the coursebook form by doing some steps. She conducted the study entitled Project Based Learning in English for Specific Purposes (ESP) Course for Pre-Service Teacher.

This research aims to analyze the outcomes of PjBL implementation by examining student performance in final video projects, observations of classroom engagement, and insights from student interviews. The findings are expected to inform best practices for designing ESP curricula that integrate technology-enhanced, project-based instruction.

METHOD

This study adopted a qualitative descriptive design to investigate the effectiveness of Project-Based Learning (PjBL) in an English for Specific Purposes (ESP) class for Information Technology (IT) students. The aim was to explore students' creative output, collaboration, language use, and engagement through the lens of their final project submissions and learning experiences. The qualitative study provides the authentic insight (Seale & Silverman, 1997) and descriptive design aims to discover and understand the phenomenon by obtaining the information from students involved in the learning process (Stenberg & Maaranen, 2022).

Participants

The participants were ten first-year undergraduate students from the Information Systems and Accounting Information Systems programs at Universitas Bina Sarana Informatika. These students were selected through purposive sampling based on the relevance and richness

of their project submissions.

Data Sources

Data were collected from three primary sources:

1. **Student Projects**: Final video assignments uploaded to students' individual YouTube channels.
2. **Observation Checklists**: Monitored student behavior, interaction, and engagement throughout the project process.
3. **Semi-Structured Interviews**: Conducted to gain deeper insights into students' reflections on collaboration, challenges, and skill development.

To guide the analysis, the following questions were addressed: 1) How original and unusual are the students' solutions?; 2) Do students explore multiple viewpoints before making decisions?; 3) Can students adapt their opinions to changing situations?; 4) Are students capable of developing diverse solutions?; 5) What sources of reference and inspiration do students use?; 6) Do students integrate their field-specific knowledge into their solutions?; 7) Are new technologies or techniques incorporated in the projects?; 8) How effective is technology in improving project outcomes?; 9) Are the proposed solutions practically applicable?; 10) Can the innovation be applied in real-life contexts?; 11) How effectively do students collaborate to develop ideas?; and 12) How do students respond to peer and instructor feedback?

Data Analysis

Data analysis followed the framework proposed by Miles and Huberman (1994), which is widely regarded as a robust model for qualitative research due to its emphasis on systematic coding, pattern recognition, and iterative comparison across data sources involving data reduction, display, and conclusion drawing.

- **Student Videos**: Reviewed and coded for linguistic accuracy, idea uniqueness, collaboration, and relevance to professional tasks. Structured observation notes accompanied the review.
- **Observations**: Checklists were quantified for frequency and behavior patterns, then interpreted descriptively.
- **Interviews**: Transcribed, coded thematically, and triangulated with video and observation data to ensure validity.

Data were categorized into six main dimensions reflecting student performance: idea uniqueness, thinking flexibility, explorative skill, technological innovation, practical application, and collaboration/adaptation. These categories provided the basis for assessing the pedagogical impact of PjBL in the ESP context.

This methodological approach ensured a holistic understanding of how PjBL facilitates the development of both linguistic and professional competencies in an ESP classroom setting.

FINDINGS AND DISCUSSION

The findings are structured across six key dimensions: (1) idea uniqueness, (2) thinking flexibility, (3) explorative skill, (4) technological innovation and application, (5) practical application of solutions, and (6) collaboration and adaptation. This structure allows for systematic evaluation of the PjBL implementation's impact.

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1. Idea Uniqueness

Students demonstrated the ability to formulate original solutions based on realistic IT-related scenarios. For example, in one project the data gathered from the result of their final project in the form of video uploaded on their YouTube channel in which each dialogue using contextualized vocabulary and natural expressions. Multiple viewpoints were explored, and peer questions extended the dialogue creatively. Firstly, the videos follow the purposes of the learning process, in which it realizes the PjBL. Secondly, there is students' involvement in the class when implementing. It is proven by their cooperation and collaboration when being given the assignments. This aligns with Bell (2010), who emphasized that PjBL fosters creative problem solving and ownership of knowledge. They have their own roles suitable with the projects. For example:

"Students must choose the topics, for example asking and giving direction. They must create a dialogue in which one person asks for directions and the other provides directions. They also edit the video as creative and attractive as possible and upload it to their YouTube channel."

Table 1. Idea Uniqueness

No	Code of Data	Idea Uniqueness - How far do the students give original and unusual solution? - Do they explore any viewpoints before making decision?
1	001	Students give unusual solution one another, especially based on the problem they provide. Here, a student has problem with her broken smartphone and another gives solution for solving the problem. Students choose the diction used for asking and giving information. They also explore their question and answer by describing something ambiguous, unclear, doubtful.
2	002	Students use asking and giving suggestion for their work related to creating ticketing system (coding system) each other. One another has problem and doubt to continue their work, then they solve the problems together. They try to eradicate the unclear and doubtful viewpoints by exploring their explanation to be understood.
3	003	Students use request format for their work, in which one has problem that she has difficulty in finishing their work and needs help, then another one is willing to help. They solve the problems by teaching and accepting how the questions are answered. For exploring the viewpoints, they include questions related and/or unrelated to the topics such as by asking and answering the formula, the way it is done, what meal they will enjoy for accompanying them finishing the task, etc.

PjBL helps students to be active and independent learner that also have creativity and innovation in finishing their tasks (Bell, 2010; Railsback, 2002). So, they will be more ready for facing the real world since the learning process is likely the reality of life. In line with them, (Larmer et al., 2015) add that PjBL supports students' critical thinking, collaboration, creativity and communication in this 21st century learning. Further, students have to be ready for adapting with global world and technology in which it demands them to afford solving complex problems and present the solution. Related to the data, students have problems

and solution by discussing one another with their friend in a team. They explore their viewpoints about the problems and solution to make the best decision for their together goodness.

2. Thinking Flexibility

Students showed responsiveness to dynamic interaction. When a peer introduced an unexpected idea or deviated slightly from the topic, they adapted smoothly, redirecting the conversation toward the problem-solving goal. This demonstrates their capacity for real-time adjustment, critical in professional communication contexts. It also validates Larmer et al. (2015), who linked PjBL with flexibility and critical thinking in unpredictable scenarios.

The videos are available on YouTube and uploaded by students for their final project of English class. It is easy for the researcher to access their video since they copy the link and paste to the LMS used for the learning process. So, everyone has their YouTube channel and they find it easy for creating the accounts. She also chooses some videos that have rich information inside, comprising conformity of work to desired directions, accuracy in holding dialogue with friends, accuracy in using vocabularies, accuracy in speaking accuracy using correct grammar, intonation, emphasis, duration, and also not long-winded. While watching the video, the researcher takes some notes needed for being analyzed.

Table 2. Thinking Flexibility

No	Code of Data	Thinking Flexibility - Students' ability in adjusting their opinion with changed situation - Students' ability in developing some solutions for a problem
1	001	When the situation is changed, they keep asking and answering according to the context so that the conversation doesn't go off on a tangent. This is so that solutions remain formed and problems can be resolved properly. For example, when discussing problems with broken smartphone, even though they ask everywhere about other things, they immediately realize and return to the original problem, which is to contribute to solving the problem. What is highlighted here is that they can practice using the 'asking and giving information' format.
2	002	When the situation changes, they remain focused on what is being discussed. This is because, even though the situation changes, the problem is still in the same corridor. Furthermore, they can develop the changing situation to be able to continue to be narrowed down to a solution to the existing problem.
3	003	Just like the two things above, when the situation changes, but still on the same discussion, then students do not then lose direction to solve the problem. In fact, they are more trained to be able to broaden their perspectives, develop thought processes and make decisions together.

PjBL allows students not only to understand theory, but also to apply it in real situations (Indrasari, 2016). PjBL not only makes students understand the theory conceptually, but also gives them a direct opportunity to practice the theory in the form of real projects. In the examples mentioned, students not only learn

teaching theory or English theory for a particular field (e.g. English for Tourism or English for Computer, English for Engineer), but they also actually make real products. Further, Kristianti & YP (2023) PjBL effectively improves engineering students' English skills, including their confidence and motivation in using English contextually and creatively. PjBL enables engineering students to learn English in a more lively, relevant and enjoyable way, thereby improving their language skills along with their confidence and enthusiasm for learning.

3. Explorative Skill

Many students grounded their discussions in personal experience and consulted online sources, including IT articles and service recommendations. These references enriched their language use and ensured domain relevance. Their ability to connect solutions with real-life tools and prior knowledge is consistent with Lestariningsih et al. (2019), who emphasized contextual exploration as a key to applied learning in the way of re-watching videos with notetaking such as:

a. Video structure
The videos consist of opening, content, and conclusion. For the opening, students start with intermezzo like say hello, ask how things are, ask what's happening, visit a friend at home, and so forth. In the content, they make a dialogue by discussing the problems and how to solve them. After that, they draw the conclusion by planning how to do.

b. Students' interaction
Students' interaction is related to the collaboration, communication and students' roles when having dialogue. Collaboration can be seen from how they work together in creating dialogues, making videos, by taking turns playing roles. Further, in this collaboration, communication can be built between students by exchanging ideas, arguing with each other, and determining their respective roles.

c. Used learning strategies
   1) Need analysis
   For the first time, the researcher identifies English needs from the students of ESP. Since the faculty is from engineering and informatics and Information System study program, the English taught is about Technology and Information such as the problems when computer has to be fixed, how to re-install some applications on the computer, etc. Those topics are related with their future work fields.
   2) Blended learning
   English learning process is conducted using blended learning using video conference (Zoom Meeting, Google Meet) collaborated with virtual discussion using WhatsApp, discussion room in LMS, etc. Students enjoy the class that can be seen from their contribution in every step of learning process whether asking, giving their opinions, answering the questions and correcting their friends while practicing the skills.
   3) Project-based learning
   PjBL in ESP classes aim to provide project-based learning experiences that are relevant to students' specific fields. PjBL allows them to actively use English in real-life tasks that are relevant to their work or academic world.

d. Students' reflection on their learning process
Students' reflection on PjBL is essential to evaluate the effectiveness of this method in improving their skills, especially in ESP classes. This reflection can cover various aspects, from language learning, teamwork, to real-world applications.

Table 3. Explorative Skill

No	Code of Data	Explorative skill - How much do they find the reference and inspiration? - Do they correlate any field of study in their solution?
1	001	For exploring the solution that they will take, students get the inspiration from any sources. In this project, students explore the reference and inspiration from their experience, in which someone who answers has had some problem in the past and got the solution. In addition, she also gives the explanation from any sources such as article in the internet related to how repair the broken part and give the contact for directing to the service centre. Surely, it's related to their field of study since they are from IT majored students. They understand the discussion about it.
2	002	About coding system problem, students get the reference and inspiration from what they do in their daily routines. They exchange their ideas for completing their coding system works respectively or called by collaboration. Besides, they get the reference and inspiration from prototyping of other students' works. Other students have finished and succeeded the works after trying some times. Since they are IT majored students, trial and error in coding system is common.
3	003	In this project, students use personal experiences in taking references and inspiration. Her personal experiences are related to when she tried to work on the existing problems and then succeeded in solving them. Then, she easily taught her friends who asked him to teach. In addition, she also used the academic literacy she had to support what she taught, so the possibility of error was small.

PjBL encourages students to develop group work skills, discuss, and solve problems together. This is in line with Lestariningsih et al., (2019)'s opinion which states that collaboration skills are important to support learning achievement and develop students' critical thinking. Students can communicate with other friends well, listen to what their friends tell, learn to have empathy and manage the conflicts that may happen inside the team. The use of credible references ensures that the resulting project is supported by a strong knowledge base, thereby increasing the quality and reliability of the project results. In addition, Steuer (2024) stated that collaboration is a critical tool for students before they leave school. This is because employers consistently rank collaboration skills among the top five skills in demand in the workplace. Good

collaboration skills can set PjBL students apart from the rest.

4. Technological Innovation and Application

Students used smartphones, laptops, Zoom, Google Meet, and video editing tools to complete and present their work. The final projects were uploaded to YouTube, increasing audience awareness and accountability. Such use of technology supports Evenddy et al. (2023), who assert that digital tools amplify learner creativity, engagement, and performance in PjBL environments.

Table 4. New Technology Innovation and Application

No	Code of Data	New technology and innovation application - Do the students use new technology or technique in their project? - How effective is technology in improving project result?
1	001	In this project, students use technology. They use some devices, such as smartphone and laptop. Besides, students also use collaboration platform such as Zoom and Google Meet. In fact, technology helps them to finish the project so much. They need to search for references via internet, surely, they need those devices. Technology is effective for improving their project result. Moreover, students must record the way they do the project and edit it properly. After that, they also must upload the project to YouTube channel. It is purposed to show their responsibility and confidence since their videos automatically will be watched by other people.
2	002	In this video, students also use technology such as smartphone and laptop. Besides, students also use collaboration platform such as Zoom and Google Meet. For doing the project, students have to demonstrate how coding system works and it uses laptop. Then, for recording how they finish their project to practice English used in communicating, they use smartphone and edit it. For the final work, students also must upload their video to YouTube channel. During finishing the project, technology supports students so much. It makes their work easier to do.
3	003	Same as the other friends' projects, for finishing this project, they also use some devices such as smartphone and laptop. Besides, students also use collaboration platform such as Zoom and Google Meet. They are used for recording and editing to be creative and attractive videos.

PjBL supported by technology can improve critical thinking skill and collaboration among students through authentic problem solving and cross-disciplinary teamwork (Evenddy et al., 2023; Krajcik & Blumenfeld, 2006; Saavedra & Opfer, 2012). With the help of technology, PjBL makes students more digitally literate, able to think more sharply, and better at working together,

because they face real problems and have to work in teams with people from other fields. The use of technology also can increase students' interest and motivation because they can use modern tools that are relevant to their lives, such as video editing, graphic design, coding, and so on.

5. Practical Application of Solutions

The simulated conversations presented tangible, practical advice that peers could use in similar real-life situations. For example, guidance on repairing mobile devices or coding tips for ticketing systems reflected the real-world transferability of student innovation. This outcome echoes the findings of Rahman et al. (2025), highlighting the relevance of PjBL tasks to occupational skill building.

Table 5. Resulted Effect of Solution

No	Code of Data	Resulted effect of solution - Does their solution have real use? - Can their innovation be applied in the real life?
1	001	In giving solution, it is related to the reality in life. The project requires students to finish a problem provided that is related to their daily life (asking and giving information about how to repair the broken smartphone). Students really give the direction where to go or what to do to find solution. From here, other friends also know the place they will visit when having the same problem. Therefore, it helps so much in the other days.
2	002	This project describes how students ask and give suggestion each other about the coding system when creating ticketing system. The suggestions they give are directly applied in their work. Moreover, it is related to the other courses in their major. The innovation that has been created can also be applied to other friends so it will be beneficial in the other days.
3	003	In finishing this project, students give solution and innovation to be applicable for anyone else. Students have difficulty when finishing other course's projects, then they teach each other and the project has finished. It can be used by other friends.

PjBL increases students' motivation and engagement in language learning (Evenddy et al., 2023). Real-world projects make learning more interesting and meaningful for students. Through challenging projects, students with their teams are trained to analyze, evaluate, and create solutions, while using the target language effectively and promoting collaboration and communication skills (Rahman et al., 2025; Sathappan & Gurusamy, 2021). This experience prepares students for real-world communication challenges. In addition, the implementation of PjBL in language learning provides comprehensive benefits, not only improving linguistic skills, but also essential 21st century skills.

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6. Collaboration and Adaptation

Peer collaboration was evident in role division, mutual feedback, and shared responsibility for video creation. Interviews confirmed that students perceived teamwork as essential for successful outcomes. Feedback from both peers and instructors was integrated into revised drafts, reflecting iterative learning. These feedback mechanisms were primarily formative in nature, provided during project development stages, and focused on improving both language use and content relevance. Students received constructive input through peer reviews and instructor comments, which they used to revise their work prior to final submission. This aligns with Darling-Hammond et al. (2020), who identified feedback and reflection as cornerstones of effective PjBL.

Table 6. Collaboration and Adaptation

No	Code of Data	**Collaboration and Adaptation** - **Can the students collaborate well to develop innovative opinion?** - **How do they adjust their opinion with feedbacks from other friends and lecturer?**
1	001	To develop the innovation opinion, students use collaboration with other friends. They discuss and find the references to make opinion together. The feedbacks are given by friends and lecturer and they are written. The feedbacks are purposed to make them improved later including the language skills (pronunciation, articulation, and grammar), and content of project (choosing topic, developing opinion, making innovation, and making solution).
2	002	To develop innovative views, students work together with their friends. They discuss and look for references to formulate opinions together. Feedback is given by friends and lecturers, which is then written. The purpose of the feedback is to help them improve themselves, both in language skills (such as pronunciation, articulation, and grammar), and in project content (including topic selection, opinion development, innovation, and solution finding).
3	003	To develop innovative views, students work together with their friends. They discuss and search for references to formulate opinions together. Friends and lecturers provide feedback which is then written. The purpose of this feedback is to help them improve themselves, both in language skills (such as pronunciation, articulation, and grammar) and in project content (including topic selection, opinion development, innovation, and solution finding).

Wiranegara (2019) stated that related to the nature of project-based learning, the concept of collaborative learning is in line with the purpose of designing tasks in this teaching and learning process. Every time a teacher collaborates or discusses with other teachers to improve their or others' understanding of a pedagogical issue, it is also part of such a collaborative effort. In addition, effective feedback helps students understand their strengths and areas for

improvement in their work. This allows them to reflect on the learning process and make necessary improvements. Feedback from peers and teachers in PjBL strengthens students' collaboration and communication skills, empower students to revise and refine their work iteratively that mirrors real-world problem solving (Darling-Hammond et al., 2020; Ling et al., 2024).

Interview Data Analysis

The researcher asks some questions to the students related to the implementation of PjBL, such as 1) What was the most memorable project during the final exam?; 2) Do you feel that your English skills were honed while working on the project?; 3) What challenges did you face while working on the project?; 4) How big was the role of team collaboration in the success of the project?; 5) Were you given enough space to be creative in the project?. Those questions are enough to obtain the additional and supported data in this research.

Table 7. Interview Data

Students' Collaboration	Relationship with Students' Future Workplace	Students' English Skill Improvement
A: We have our roles respectively; we interact cohesively and we can discuss and make our decisions together. B: Collaboration plays a huge role in the success of this project. Each member has their own ability and view point so that we complete each other. We support, give feedbacks and collaborate for finishing each part of this project. C: From this collaboration, we learn to joint our ideas. Besides, in editing process, we also collaborate to be able to result creative video.	A: My English skill is improved since I have to train myself to understand the dialog related to my workplace in the future and it must use English for communication. B: This project helps me so much, especially in English skill improvement for the professional context. C: This project requires us to play roles, and it is related to our major. We enjoy it because it also requires us to use familiar terms.	A: Of course, my English skill is improved since during making video, we must use English where it trains my speaking skill and grammar. B: Surely, my English skill is improved after finishing this project. I have to search for the references in English, write presentation material, and communicate using English during team discussion. It helps me to improve my vocabularies and how to pronounce the words. C: My English skill is improved since I have to train myself to understand the dialog related to my workplace in the future and it must use English for communication.

This interview data relate to Stoller (2012)'s, PjBL is very suitable for use in ESP teaching because it allows students to:

- Develop English skills in situations that reflect the real world of work. Students experienced from this project to get used to speaking English related to their future workplace in which they use familiar terms in their major. They learn two things in a situation.
- Train professional communication according to their field. Students were trained to search for English references, write English presentations, understand the dialogue containing topic related to their professional field.
- Increase engagement and motivation to learn. It plays huge role in the success of this project. Each member has ability and view point so that they complete each other. They support, give feedbacks and collaborate for finishing each part of this project.

Overall, the discussion supports previous literature suggesting that PjBL enhances language learning by integrating academic content with practical experience. The combination of digital collaboration, task authenticity, and interdisciplinary knowledge yielded positive results for student engagement and ESP goal achievement.

CONCLUSION AND IMPLICATIONS

This study demonstrates that Project-Based Learning (PjBL) in an English for Specific Purposes (ESP) context significantly enhances students' academic development. For example, 9 out of 10 students successfully integrated field-specific terminology into their dialogues, and all student groups effectively used video-editing tools and collaborative platforms such as Google Meet and LMS. These outcomes illustrate the model's ability to improve not only language proficiency but also transferable digital and professional skills. students' language proficiency, critical thinking, creativity, and collaborative competence. By engaging IT students in authentic, field-specific projects that required the use of English, learners were able to bridge theoretical understanding with practical application. Their ability to adapt, innovate, and solve problems using appropriate language forms was consistently evident across the project stages.

The findings underscore the value of integrating digital tools and real-world tasks into ESP instruction. Students not only improved their linguistic accuracy and fluency but also gained experience in professional communication, team collaboration, and technological literacy—skills essential for workplace readiness.

For curriculum designers and educators, this study supports the integration of PjBL as a core instructional approach in ESP courses. Institutions should provide targeted training for educators on designing and assessing project-based tasks and should invest in digital infrastructure that facilitates collaborative and multimedia learning.

Future research should explore long-term impacts of PjBL on language retention and field-specific communication proficiency across different ESP domains. Broader studies involving diverse academic settings may further validate these findings and refine implementation strategies.

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