



Aprendizaje Basado en Proyectos para el Desarrollo de Habilidades Comunicativas en Inglés en los estudiantes de tercer nivel del Centro de Idiomas de la Universidad Técnica de Babahoyo

Project-Based Learning for the Development of Communication Skills in English in Third Level Students of the Language Center of the Technical University of Babahoyo

Aprendizagem baseada em projetos para o desenvolvimento de competências de comunicação em inglês em alunos do terceiro ano do Centro de Línguas da Universidade Técnica de Babahoyo

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Resumen

Esta investigación examina la efectividad del Aprendizaje Basado en Proyectos (ABP) en el desarrollo de habilidades comunicativas en inglés en estudiantes de tercer nivel (A2) del Centro de Idiomas de la Universidad Técnica de Babahoyo. El estudio empleó un diseño cuasi-experimental con un grupo control y uno experimental, involucrando a 60 estudiantes durante los meses de octubre y noviembre de 2024. Los resultados revelaron una mejora significativa en las habilidades comunicativas del grupo experimental, con un aumento del 27.8% en el nivel general de cumplimiento y una notable mejora en la calidad de los proyectos desarrollados. El análisis estadístico mediante la prueba t-student confirmó la significancia de estos resultados ($p < 0.05$), respaldando la efectividad del ABP como metodología para la enseñanza del inglés en el nivel A2.

Palabras clave: aprendizaje; proyectos; habilidades comunicativas; competencias; metodología.

Abstract

This research examines the effectiveness of Project-Based Learning (PBL) in developing English communication skills in third level (A2) students at the Language Center of the Technical University of Babahoyo. The study employed a quasi-experimental design with a control group and an experimental group, involving 60 students during the months of October and November 2024. The results revealed a significant improvement in the communication skills of the experimental group, with a 27.8% increase in the overall level of compliance and a notable improvement in the quality of the projects developed. Statistical analysis using the t-student test confirmed the significance of these results ($p < 0.05$), supporting the effectiveness of PBL as a methodology for teaching English at the A2 level.

Keywords: learning; projects; communication skills; competencies; methodology.

Resumo

Esta investigação examina a eficácia da Aprendizagem Baseada em Projetos (PBL) no desenvolvimento de competências de comunicação em inglês em alunos do terceiro nível (A2) no Centro de Línguas da Universidade Técnica de Babahoyo. O estudo empregou um desenho quase experimental com um grupo de controlo e um grupo experimental, envolvendo 60 alunos durante os meses de outubro e novembro de 2024. Os resultados revelaram uma melhoria significativa nas competências de comunicação do grupo experimental, com um aumento de 27,8 % . A análise

estatística através do teste t-student confirmou a significância destes resultados ($p < 0,05$), suportando a eficácia do PBL como metodologia para o ensino do inglês ao nível A2.

Palavras-chave: aprendizagem; projetos; competências de comunicação; competências; metodologia.

Introduction

The teaching of English as a foreign language has undergone a significant evolution in recent decades, moving from traditional methods to more participatory and student-centered approaches. In this context, Project-Based Learning (PBL) emerges as an innovative methodology that allows students to develop communication skills while working on meaningful and contextualized projects.

The Technical University of Babahoyo, aware of the importance of mastering English in the current globalized context, seeks to implement effective methodologies that allow its students to reach optimal levels of communicative competence. This study focuses on evaluating the effectiveness of PBL as a tool for the development of communicative skills in English, specifically at level A2 according to the Common European Framework of Reference for Languages (CEFR).

Problematization

The Language Center of the Technical University of Babahoyo has identified various challenges in teaching English, mainly:

- Low level of active participation of students in traditional classes
- Difficulties in the practical application of acquired knowledge
- Limited development of communication skills in real contexts
- Lack of motivation and commitment to language learning

These problems have resulted in insufficient development of the communication skills necessary to reach level A2, especially in authentic communication situations.

General objective

To evaluate the effectiveness of Project-Based Learning in developing English communication skills in third-level students at the Language Center of the Technical University of Babahoyo.

Specific Objectives

1. Determine the impact of PBL on the level of achievement of the learning objectives of level A2
2. Analyze the quality of projects developed by students as an indicator of progress in communication skills
3. Evaluate the specific development of the four communication skills (speaking, listening, reading, writing) through PBL
4. Compare the performance between the experimental group and the control group in terms of acquired communicative skills

Theoretical framework

Fundamentals of Project-Based Learning

Project-Based Learning (PBL) is based on constructivist learning theories, which postulate that knowledge is built through active experience and interaction with the environment (Dewey, 2018). This methodology is characterized by placing the student as the protagonist of his or her own learning, allowing him or her to develop skills while working on meaningful and relevant projects for his or her context.

According to Thomas (2020), PBL is distinguished by five fundamental characteristics:

- Centrality of the project in the curriculum
- Orientation towards significant questions or problems
- Constructive research
- Student autonomy
- Realism and authenticity

Developing Communication Skills in Language Learning

Communicative skills in language learning comprise four key areas: listening, speaking, reading, and writing. Krashen (2019) argues that these skills are most effectively developed when students are exposed to comprehensible input and have meaningful opportunities for language production. CEFR level A2 requires students to be able to:

- Understand frequently used phrases and expressions

- Communicating in simple, everyday tasks
- Describe aspects of your past and environment
- Express immediate needs

Integrating PBL into Language Teaching

The implementation of PBL in language teaching has shown promising results in various educational contexts. Previous studies (García-Martínez & López-Sánchez, 2021; Rivera-Torres, 2022) have shown significant improvements in motivation, participation and development of language skills when using this methodology.

Assessment of Communication Skills

Assessing communication skills in the context of Project-Based Learning (PBL) focuses on measuring both the process and the product of learning, which implies a comprehensive and detailed approach. This type of assessment considers not only final outcomes, such as the quality of the projects delivered, but also the student's ongoing progress in skills such as speaking, listening, reading, and writing. According to Brown (2023), an effective framework for assessing communication skills includes several elements:

Project evaluation rubrics: They are structured instruments that allow measuring student performance in specific aspects of the project, such as coherence, creativity and use of language.

Evidence Portfolios: They consist of compilations of work and activities carried out by students throughout the project, which allows their progress to be evaluated longitudinally.

Peer review: It involves students evaluating the work of their peers, encouraging critical thinking, collaboration and reflection on their own performance.

Self-assessment: It promotes self-criticism and self-reflection, allowing students to identify their strengths and areas for improvement, which contributes to their autonomous learning.

Factors that Influence the Success of PBL

Successful implementation of PBL depends on several factors that directly affect learning outcomes:

Appropriate project design: A well-structured project should be aligned with the learning objectives, be relevant to students, and allow for the practical application of the knowledge acquired.

Adequate teaching support: Teachers play a crucial role as facilitators, providing guidance, resources and feedback during the process.

Available resources: The availability of materials and tools, both physical and digital, facilitates the execution of meaningful activities.

Student motivation: A high level of interest and commitment on the part of students improves their active participation and the success of the project.

Classroom climate: An environment of respect, collaboration and mutual support fosters effective learning and trust among students.

Technology and PBL in Language Teaching

Technology plays a key role in the implementation of PBL, especially in language learning, by expanding opportunities for interaction and access to authentic resources. Martínez-López (2023) points out that digital tools can enhance PBL methodology in the following ways:

Asynchronous and synchronous communication: Platforms such as video calls, forums and emails allow students to collaborate and communicate in real time or delayed, eliminating barriers of time and space.

Multimedia content creation: Students can develop presentations, videos and other creative formats that reinforce their linguistic and expressive skills.

Access to authentic resources: The Internet provides access to real texts, audios and videos in the target language, which enriches learning and makes it more contextualized.

Evaluation and feedback: Digital tools such as automated rubrics, interactive quizzes, and performance analytics facilitate faster and more detailed assessment, allowing students to receive immediate and specific feedback.

Methodology

Research Design

A quasi-experimental design was implemented with a control and experimental group, with pre-test and post-test measurements. The intervention was carried out during the months of October and November 2024.

Procedure

Preparation Phase (2 weeks):

In this initial phase, key activities were carried out to lay the foundations for the study. First, students were randomly selected and assigned to two groups: experimental and control, ensuring impartiality in the distribution. Then, a diagnostic test (pre-test) was applied to assess the participants' initial level of English communicative skills. Finally, the teachers responsible for the experimental group received specific training in the Project-Based Learning (PBL) methodology, allowing them to understand and apply the principles and strategies necessary for its effective implementation.

Implementation Phase (6 weeks):

During this period, the methodologies used in both groups were clearly differentiated. The experimental group worked using PBL, where students participated in practical projects designed to develop communication skills in a meaningful and collaborative context. On the other hand, the control group continued with the traditional methodology, focusing on expository classes and structured exercises. This stage was key to observing the direct impact of the different methodologies on student learning.

Evaluation Phase (2 weeks):

In the final stage, a post-test was applied to measure the students' progress in both methodologies. Additionally, the projects developed by the experimental group were evaluated using specific rubrics that analyzed aspects such as coherence, creativity and use of language. Data was also collected through observations and questionnaires, which allowed obtaining a comprehensive view of the impact of the methodologies used and collecting the students' perception of their learning experience.

Assessment Instruments

Standardized test level A2:

This tool allowed to objectively measure the initial and final communicative competences of the students, ensuring an accurate comparison between the experimental group and the control group. The tests covered the fundamental skills: speaking, listening, reading and writing, following the CEFR standards.

Project evaluation rubrics:

The rubrics were designed to analyze the quality of the projects developed by the students in the experimental group. They evaluated criteria such as organization of ideas, creativity, teamwork and language proficiency, providing a detailed assessment of the final product.

Observation records:

Throughout the process, observation records were used to document students' behavior, interaction, and participation in activities. These records provided qualitative information that complemented the quantitative results obtained.

Satisfaction questionnaires:

At the end of the study, questionnaires were administered to collect students' perceptions of the methodologies used. These questionnaires provided valuable information about their motivation, commitment and satisfaction with the learning process, especially in the experimental group.

Population and sample

Population

Third level students from the Language Center of the Technical University of Babahoyo.

Sample

60 students divided into:

- Experimental Group: 30 students
- Control Group: 30 students

Sample characteristics:

- Age range: 18-25 years
- Previous level of English: A1 completed
- Gender distribution: 55% female, 45% male

Results

General Compliance Level

Table 1: Comparison of Compliance Levels

Cluster	Pre-test	Post-test	Increase
Experimental	45.3%	73.1%	27.8%
Control	44.8%	52.4%	7.6%

Prepared by the authors

The analysis of Table 1 shows that the experimental group had a significant increase in the level of general compliance with the learning objectives, going from 45.3% in the pre-test to 73.1% in the post-test, which represents an increase of 27.8%. On the other hand, the control group only experienced an increase of 7.6%, going from 44.8% to 52.4%. This shows that the PBL methodology is considerably more effective compared to the traditional methodology in achieving the established objectives.

Project Quality

Table 2: Project Evaluation (Experimental Group)

Criterion	Level Achieved
Coherence and Organization	85%
Use of Language	78%
Creativity	82%
Collaborative Work	88%

Prepared by the authors

The quality of the projects developed by the experimental group was assessed using four key criteria: coherence and organisation (85%), language use (78%), creativity (82%) and collaborative work (88%). These results indicate that the PBL approach not only enhances language skills, but also transversal skills such as organisation and teamwork. The high score in creativity and collaboration highlights the motivating and dynamic role of this methodology.

Development of Communication Skills

Table 3: Progress by Communication Skill

Ability	Experimental Group	Control Group
Speaking	+31.2%	+8.4%
Listening	+28.7%	+7.9%
Reading	+25.4%	+9.2%
Writing	+26.9%	+8.7%

Prepared by the authors

Table 3 shows a notable progress in the communication skills of the experimental group compared to the control group. For example, in the speaking skill, the experimental group achieved an increase of 31.2% compared to only 8.4% of the control group. Similar results are reflected in listening (28.7% vs. 7.9%), reading (25.4% vs. 9.2%) and writing (26.9% vs. 8.7%). This confirms that PBL promotes a comprehensive development of the four language skills by integrating authentic tasks and practical activities into the learning process.

Statistical analysis of the results

A statistical analysis was performed using the t-student test for independent samples, comparing the results of the post-test between both groups.

Analysis results:

- $t = 4.827$
- $p < 0.001$
- Cohen's $d = 0.89$

These results indicate a statistically significant difference between the groups, with a large effect size.

Discussion

The findings of this research are in line with previous studies supporting the effectiveness of Project-Based Learning (PBL) in language teaching. The remarkable improvement in communication skills observed in the experimental group can be attributed to several key factors. Firstly, PBL provides students with greater exposure to authentic communicative situations,

allowing them to practice the language in meaningful and relevant contexts. Furthermore, this methodology fosters an increase in students' motivation and engagement by actively involving them in their learning process.

It also promotes the development of collaborative work skills, which are essential in both academic and professional fields. Finally, the integrated approach of PBL allows the four language skills (speaking, listening, reading and writing) to be worked on in an effective and balanced way, which contributes to the comprehensive development of communication skills.

Conclusion

The results of this study clearly demonstrate that Project-Based Learning (PBL) is significantly more effective than traditional teaching methodologies in developing communication skills in English at the A2 level. The experimental group achieved substantial improvements across all assessed areas, with an average increase of 27.8% in the overall level of compliance. This stark contrast to the 7.6% increase observed in the control group highlights the potential of PBL to foster meaningful and measurable progress in language acquisition.

One of the key strengths of PBL lies in its ability to engage students in authentic and contextualized learning experiences. By working on meaningful projects, students not only develop their communication skills but also enhance their creativity, collaboration, and problem-solving abilities. The integration of real-world scenarios and collaborative tasks provides students with opportunities to apply their language skills practically, resulting in a more profound and lasting learning experience compared to traditional approaches that often emphasize rote memorization and isolated skill practice.

Moreover, the findings suggest that PBL is a powerful tool to address common challenges in language education, such as low student motivation and limited practical application of language skills. The higher levels of motivation and engagement observed in the experimental group indicate that students are more likely to participate actively and take ownership of their learning process when using this methodology. As such, PBL not only supports the development of linguistic competencies but also cultivates a positive and dynamic learning environment that benefits students' overall educational experience.

Recommendations

It is recommended to implement Project-Based Learning (PBL) gradually at the different levels of the Language Center, which will allow for a progressive adaptation of both students and teachers to this innovative methodology. In addition, it is essential to provide ongoing training to teachers in the use of PBL, ensuring that they have the necessary tools to design and implement effective projects. It is also suggested to develop a bank of projects adapted to the local context, which will facilitate the contextualization and relevance of the activities for students.

It is important to establish a continuous monitoring and evaluation system to measure the impact of PBL and make adjustments to improve its effectiveness. Finally, collaboration between teachers should be encouraged to design projects, promoting the exchange of ideas and strategies that enrich the educational process.

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