PROJECT-BASED LEARNING TO DEVELOP ORAL PRODUCTION IN ENGLISH AS A FOREIGN LANGUAGE

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Abstract—this work sought to determine the effect of The Project-Based Learning (PBL) Methodology in relation to oral production in English. Initially, a diagnostic test was given to first and second year bachelor’s of Foreign Languages candidates at Unidad Central del Valle del Cauca –in Tuluá City- Colombia to establish their actual communicative competence, before the PBL implementation. The results showed a majority of students with basic level oral proficiency. Subsequently, extracurricular reunion dates were programmed in which students developed three audiovisual production projects using the PBL method: A Podcast, a Digital Storytelling and a Short Film. Throughout the entirety of the project, students were required to interact in English.

After students’ projects were completed and presented for peer review, their oral skills were again evaluated with a post test, in order to determine the efficacy of the PBL method in oral English production. The results were satisfactory, with many students showing marked improvement. Several students progressed from basic to intermediate or advanced levels.

Keywords—PBL, Oral Communicative Competence, Projects, EFL, Affective Filter

I. INTRODUCTION

In Colombia since the beginning of the 21st century different methods and approaches have been implemented for teaching English, such as Grammar-Translation, Audiolingual, among others; however, in the field of foreign language teaching at a global level, different approaches such as the Project-Based Methodology have recently taken place, which allow a better and effective development of communicative skills. These methods used by teachers are mostly directed to written production and memorization and because of that, they do not have a good result as stated by the expert in bilingualism Amador in Linares [1] they do not have the concept of methodology to teach English. They stick to grammar and translate word by word. We continue to teach the verbs to be and to have in a rigid way and we ask the children to fill in blank spaces to complete sentences, that is, an obsolete grammatical structure. There is no discourse, nor pragmatics, and I have seen this particularly in public schools. (p.1)

Now, according to the report provided by the Instituto Colombiano para el Fomento de la Educación Superior (hereafter ICFES) (Colombian Institution for the promotion of higher education) [2], the evolution of the percentage results according to the period in which the tests were applied and the Common European Framework of Reference, the majority of those evaluated have a level between A- and A2 when graduating from their corresponding undergraduate courses.


However, knowing the perspective of the English language and the objectives outlined in the Bilingualism National Plan (BNP), it is more than evident the need to have English teachers to strengthen the process of English teaching as a foreign language in Colombia and contribute to the achievement of the goals of the BNP, it is imminent to work in the education of foreign language degrees (English) using methods that lead to good command of the language. Therefore, after an extensive analysis, it was found that Project
Based Learning (PBL) allows in a more practical way to develop meaningful learning work, Railsback defines learning by projects as “Project-based instruction is an authentic instructional model or strategy in which students plan, implement, and evaluate projects that have real-world applications beyond the classroom” (p.9) [3].

Consequently, English speaking ability in 15 students from the first to third semester of the Bachelor's Degree in Basic Education with emphasis on Foreign Languages was evaluated using the PBL through micro-projects that used the speaking communicative competence within a context, in this case, the creation of audiovisual content, which in the first instance would be written down during the creation and later performed by the students themselves.

After analyzing the problem above, this led to a decisive question: what is the effect of the Project Based Learning method in the English Language oral production in First year students of the Bachelor’s Degree Program in Education with emphasis on Foreign Languages? The research question proposed established a set of objectives. The main research object was; to determine the effect of PBL method in the development of the oral skill in English in the above mentioned population.

As for the specific aims, it was necessary to identify the students’ oral proficiency level using a pre-test focused on the above mentioned skill. The second research objective was to implement the Project Based Learning Method for the English Language oral production improvement. The final research objective was to evaluate the effectiveness of the PBL method in the English language oral production (Speaking). These three objectives conducted the research and allowed the comprehension of the effectiveness in use of a method for English Language oral production teaching.

II. THEORETICAL BACKGROUND

The question that led to this research project, was whether the Project Based Learning method was effective with regard to the improvement of oral production in foreign language learning contexts. Formerly, a bibliographical study was carried out in the matter of PBL, its components, and its influencing factors. Among the important theoreticians; McGrath, 2002; Fernandez, 2006; Perrenet, 2000) portray some of the focal points under this method; these claims embody the theoretical background of the research project.

First of all, it is worth to answer; what is Project Based Learning “PBL”? this concept was developed by William H. Kilpatrick; who declares the employment of this method implies changes not only as for the organizational structure and architecture in the school refers, also in the new type of textbooks, curriculum, program, even new possibilities of qualification and promotion. Most importantly, PBL encourages an attitude change from the community in schools, starting with administrators up to parents and students. This put forwards the raising of motivation in schoolers, the appreciation of school and learning itself, always looking towards the future, bearing in mind the educational objectives the new school demands: Technology use and humanization. [4].

Kilpatrick advocated for student-initiated projects that utilize the laws of learning to intrinsically motivate the student to emerge with a high degree of skill and knowledge, view school activity with joy and confidence, and appreciate school and other social agencies. [4]

Kilpatrick contributed to PBL by offering a broad definition of the Project Method. He introduced four types of projects and the procedures to develop when applying them. Type 1 projects symbolizing some external idea or plan; Type 2 comprise enjoying an aesthetic experience; Type 3, projects for problem solving; and Type 4 involve getting a certain item of skill or knowledge. Pg. 158 [4]. These projects are created to contribute a learning community. Each project must bear the following elements: 1) To be student centered. 2) To be sensitive in the direction of the local culture and culturally appropriately. 3) To offer significant learning by promoting research skills in students.

The Project Based Learning according to McGrath “typically focuses teaching and learning around projects that are driven by an authentic question or problem that is central to the discipline/curriculum, involves the building of a community of learners, and culminates in the presentation of a student constructed work (e.g., a book, Web site, or multimedia presentation) to an outside audience” [5]. PBL is a learning method that involves groups who use problems as stimulus to develop skills and to solve problems. The PBL arises, as an innovative approach that sinks his roots in the constructivism [6]. In essence, PBL begins with an initial problem, subsequently, and learners develop a creative work in search of solutions or interpretations of the situation or object of study. This is organized, mainly through group work, along with the individual self-guided work, with the purpose of combining the acquisition of knowledge with the development of general skills and useful attitudes for the professional area.

Additionally, the PBL is based on a cyclical process by three phases. The first one of them is the cooperative reflection on the initial problem and identification of the needs of learning, then the individual study car directed on the topics of learning and finally the application, in group, from the new knowledge to the problem and synthesis of what was learned. [7].
An aspect to bear in mind is that the ABP needs a great quantity of time and I strengthen so much on the part of the students, since on the part of the teachers [8]. Also one affirms that, with a big number of students, PBL approach needs more time, more personal and more material resources that the traditional approach and that the pupils of PBL programs use the library more often and resort to a major variety of sources of information that the one that is formed according to the traditional curriculum, by what specific skills are needed in this respect [9].

As stated in Dochy, Segers, Van den Bossche and Gijbels, García, Liu or McGrath, it is possible to indicate basic characteristics of this approach: [10].

- Learning focuses on the student, who assumes a major responsibility in his own learning (self-guided learning). This type of learning takes place in small groups of students under the guidance of a tutor who acts as "facilitator", instead of a mere information transferor.

This type of learning is also called "self-guided learning" is the student who gives direction to the projects, although these had been assigned by a teacher; in that sense a project can have different outcomes depending on the groups decisions in the project development.

- In the sequence of learning, real problems are used, especially without any preparation or previous explanation. These constitute the organizing area and the stimulus for the learning.

To analyze, to evaluate and to create are the goals of this methodology, according to Bloom's taxonomy, these are the developing factors which ensures a meaningful and lasting learning.

![Bloom's Taxonomy](image)

**Fig 2: Bloom’s Taxonomy, revised version by P. Armstrong. Vanderbilt University Center for teaching [12].**

A. PBL and Motivation.

Now, PBL also influences the emotional component, authors like McGrath; Mennin et al.; Smits et al. [10] suggest learners are more satisfied, less stressed and are more positive regarding his learning when the PBL is used; in comparison to the traditional curriculum where they felt the learning experience was boring and irrelevant.

On the subject of motivation, diverse authors have come to the conclusion that this approach is entertaining to students and teachers, because it improves the motivation and the commitment of all the members involved in the learning process in general terms, the students who follow PBL approach change their view on studying, as in a more comprehensive way rather a repetitive one which often means the students are motivated. [10].

Further, the Affective Filter Hypothesis proposed by Dulay and Burt deals with the "affection"; that is to say, the effect of the personality, the motivation, and other emotive variables on the learning language. [11].

![Affective Filter Hypothesis](image)

**Fig 3: The Affective Filter Hypothesis. Adapted from Krashen (1982) and Gregg (1984) [13].**

During the language acquisition process, the affective filter can be helpful or a barrier depending on whether it is low or high. In fact, learners performance better if their motivation is high. In addition, language acquisition is helped by high levels of self-confidence and positive self-image, together with low levels of anxiety. [14]

In the same context, Dulay and Burt claim the following: Having the right attitudes may do two things for second language acquirers: it will encourage them to try to get dwells input, to interact with speakers of the target language with confidence, and also to be dwells receptive to the input they get [11].

Inevitably, these components are more relevant for the subconscious acquisition than the conscious learning. Theoretically, when there are affective barriers, the learner will have a "mental blockade" and this one does not allow the correct information process (output) even though the learner
has done a proper input process. The acquisition is ideal when the learner is motivated, trusts in himself, and feels low anxiety.

Considering the effect PBL has, the activation of previous knowledge and the transfer of the knowledge and skills from the class to the professional world is more likely to occur. Retention and comprehension is improved; students who follow a curriculum based on the PBL obtain equal results or, even, improve in some aspects that those who follow a traditional curriculum, assuredly, they are not in disadvantage in the acquisition of scientific basic knowledge or of professional skills [8].

B. Communicative Competence

This learning methodology will be in used in an oral way, since the language is, among other definitions, communication; the aim of the language education is to develop what Hymes called the “communicative competence”, which attempts to study language skills as whole. The author understands the linguistic theory as part of a more general theory that incorporates the communication and the culture [15]

Hymes suggests the knowledge of linguistic forms is not enough at the moment of developing communicative competence. He adds the pragmatic dimension is the learners’ ability to use the acquired linguistic forms in a context. In that sense, competence is conceived as a capacity to gather tacit knowledge learnt with the effectiveness to produce language to communicate with others. Such communicative action implies a recognition of other internal factors such as attitude, values, or motivation. Consequently, the learner needs not only the grammar knowledge and the linguistic as well as cognitive elements, but also a set of emotional aspects when developing communicative competence. Hymes proposes communication elements which are described as: grammatically (what is formally possible) and appropriateness (what is adequate to, suitable for, and successful in a context) knowledge and ability for use may also relate to the parameters of feasibility (what can be implemented in terms of human information processing) and probability (what is actually performed) [16].

The aspects mentioned above lead to what is studied as performance, in agreement with Hymes perspective, performance encompasses the sub competences derived from the communicative one, i.e. language skills and their influence in interaction with other speakers at the moment of using the target language. Hymes concludes competence must be understood as ability for use. Widdowson explains the concept of competence taking Hymes’ original definition and ability and explaining the role of knowledge in the competence concept [17]
As stated in Penner, the communication process associate five elements. The first three correspond to the speaker whereas the last three correlate to the listener. Communication begins with a source, a message codification made by the speaker cognitively. Later, the speakers constructs the message, oral or written, the message is then transmitted through an encoding process, where the speaker utilizes semantic, syntactic and pragmatic elements of the discourse to elaborate utterances which then are received orally or in a written form, this is known as the channel medium. The decoding process is made by the receiver, the message must be comprehensible since the receiver must interpret the utterance’s full content [18].

To sum up it, the aspects mentioned above where the foundation for this research project. PBL focused on the communicative competence mix two important matters that exemplify learning is a mixture between the situational thing (what happens in the context) and the education of a foreign language. Therefore, PBL is implemented to determine the relationship and the relevance this method has on learning a foreign language.

III. METHODOLOGY

This was a qualitative study conducted on first and second year students from the Foreign Languages Bachelor Degree program of a university in Tuluá – Colombia. This study’s purpose was to evaluate the effect of Project Based Learning Method in oral English production of non-native English speakers. This was achieved via descriptive analysis of the oral production, and the use of a pre and post test to examine the oral skill progression in the studied population.

Similarly, based on the implementation procedure, this study corresponds to the Action Research methodology co developed by Yigit. During stage 1, researchers collected information regarding each students’ oral English production level. Next, in stage 2, the researchers collected data from a sample population. Thirty (30) students completed a survey about their willingness and time availability to participate in the research project, based on a convenience sample procedure. The selected population comprised 15 students. Stage 3 implemented the PBL Method through extracurricular sessions, whereas stage 4 was the data collection phase. Finally, stage 5 utilized the feedback loop to make decisions about the PBL method’s usefulness in the bachelor degree program. The study’s instruments for data collection were a proficiency test measuring oral production, the implementation of lesson plans based on the PBL method and an oral interview.

A. Proficiency test:
The "linguistic Communication: English test “oral expression section was used to measure students’ oral English proficiency at the beginning and end of the project [20]. The evaluation criteria utilized were:

Adequacy: Which refers to the property, comity and relevancy of the speech in the oral production.
Cohesion and coherence: It refers to the way in which, the student manages to interlace the different messages, avoiding the redundancy and the contradictions.
Correction: It is the correct use of the grammatical procedure to the moment to communicate, using the appropriate structures and the pronunciation of the same ones.
Intonation, fluency and expressiveness: It refers to the tonal varieties used to express, the speed of the speech and the
gesticulation used in the oral production doing good use of the movements.

Interaction: It does special emphasis in the speakers’ roles and recipient, in all that there is exchange of shifts and participation activates in the communication. [20]

Assessments were made with an evaluation grid classifying oral proficiency levels in: initial, intermediate and high, based on the performance of A2 basic users according to the Common European framework.

The test was divided in 3 parts, beginning with prior knowledge activation, greetings and personal information questions. This part takes between 1 to 2 minutes maximum. Afterwards, the students have a 4 to 5 minutes interview where they discuss topics such as, r personal information, family and the city they live in. The last part is a 2-3 minutes monologue having students describe pictures related to the household, birthdays and personal likes and dislikes.

B: Project Based Learning implementation

Before the project implementation, the population answered a survey identifying students’ English needs, as well as their availability to participate in the project. For the implementation, three projects were established with five students to a group. The projects were: Short film, consisting of a small audiovisual production. The Podcast consisting of a mini-radio program and Digital Storytelling that consisted of making a presentation of images to tell a story accompanied with narration.

During the first stage of project implementation students chose a project topic. Subsequent class discussion sessions helped to flesh out the topic in stage two. Stage three was the preparation phase followed by stage four, the information gathering phase. In stage four, researchers oriented and gave feedback to students using English as a communication vehicle.

On stage five, a project evaluation process was carried out. Voice Recordings and the evaluation grid were used to analyze students’ oral English production. Last, stage five was the student’s project presentation.

PROJECT-BASED LEARNING STAGES

A: Diagnostic test.

Furthermore, the following figures show the results from the diagnostic oral test I, applied at the beginning of the research project. Regarding to the analysis of the data, orange bars refer to the initial level, the pink bar corresponds to the intermediate level and the blue bar to the high level. The vertical line shows the number students in every level.

Fig 7: Project-Based Learning stages. Adapted from “Getting Started with Project Based Learning” McGrath [5]

C: Interview

To conclude the implementation, the researchers conducted an oral interview with the students' perceptions regarding their improvement in social interaction and oral English production. Also the students answered questions about the PBL methodology implemented in relation to the affective factor in their learning process and the importance of attendance during the research.

IV. RESULTS

A. Diagnostic test.

Furthermore, the following figures show the results from the diagnostic oral test I, applied at the beginning of the research project. Regarding to the analysis of the data, orange bars refer to the initial level, the pink bar corresponds to the intermediate level and the blue bar to the high level. The vertical line shows the number students in every level.

Fig 8: Diagnostic test results.
The fig 8 illustrates the intermediate level presents the largest number of students in 3 out of the 5 evaluation criteria. The intermediate level decreased in intonation, fluency and expressiveness, to finally drop the lowest in the interaction. This suggests students are stronger on input processes rather than output, which is essential in the oral production. Under the criterion of adequacy, it is evident that most of the population was in an intermediate level. The one student who was on initial level was a student who was in his first semester and had had a very small contact with the foreign language. Finally it is pertinent to highlight that a wide part of the group developed an excellent adequacy to the presented situations. Subsequent to the criterion of cohesion and coherence, again there is demonstrated that a wide part of the group is in intermediate level, this is due to the fact they were significantly cautious when speaking, hence they preferred making short pauses in their speech, preferentially they tend to repeat familiar utterances with known grammatical structures. There exists a major presence of the initial level, compared to the previous criteria, since these students were using more words and ideas with the purpose of being understood by the listener, there existed also use of onomatopoeias as Hmm, Amm but less than the intermediate level of group.

Regarding to Correction, there was an equivalence between initial and intermediate levels and interval, due to the fact students made several grammar and tense mistakes when speaking. This aspect shows a need of improvement coming from the students and it is one of the aspects to correct during the implementation.

Dealing with, fluency and expressiveness, this graph exemplifies predominance of the initial level, due to the fact the majority of the students, had difficulties in expressing themselves with emotions or paralinguistic elements. Concerning to fluency, the students’ speech developed slowly with extensive pauses which denoted a difficulty to produce messages. Students in intermediate and high level, showed a more fluid speech with intonation and more ability to express emotions.

In relation to the criterion of interaction, it is possible to observe the students did not manage to establish an effective communication with the listener. In initial and intermediate levels, the evaluator had to participate to create interactions since students were not able to. Strategies such as reconsidering questions were necessary to generate conversations and develop effective communication. Meanwhile, the participation of the evaluator in the high levels was considerably less showing the students had more skills to promote conversations.

The diagnostic test proved the applicability of the implementation to improve the English oral production level. The students showed a high level of comprehension, however, when it comes to the production, students presented more difficulties.

B. Post test:

Once the implementation ended, the students’ English oral production level was evaluated again, in order to compare the initial and final results. The test contained the same kind of questions contained in the diagnostic test, although in this case topics related pets, animals and free time were used. The evaluation was divided in three parts, starting with an introduction, followed by an interview and a monologue.

Fig 9: Final test results.

The findings showed students Adequacy improved. The observation indicated students English oral comprehension level was higher and this allowed them to understand almost immediately what they were asked at the time.

Regarding Cohesion and Coherence, the graph displayed initial level disappearance and the high level increasing. At this point it was found the students, unlike the diagnostic test, no longer ramble in speaking. They did not necessarily perform extensive sentences, however, they were fluent that allowing a real questions and answers understanding.

As for the criterion of Correction, as mentioned above, the students used simple grammatical structures to answer questions appropriately. In some cases they produced extended sentences, which gave place to two unexpected phenomena: On one hand they interweaved sentences slowly but effectively, or on the other hand they became redundant by using the same structures when speaking.

For the criterion of intonation, fluidity and expressiveness, it was noticed again and as it was suggested at the beginning, that the students improved their oral production in areas related to voice tonality, speech speed and body expressions related to what was being communicated.

Finally in terms of Interaction, there was an equal number of students at intermediate level who managed to interact actively with the evaluator and high level students who throughout the
exam maintained an almost natural conversation when speaking.

Overall, the final evaluation results showed that consistency, willingness and commitment to practice are fundamental, since the students who attended all the project implementation sessions and performed better results than those who attended some of them [21].

C. Interview

After the project implementation concluded, students' responses showed positive outcomes in terms of their oral production improvement

“It helped me a lot to interact with other people in my English course as well as with advanced classmates where I learn from them and increase my knowledge” (Student)

“Being in a conversation group has made me interact with others much easier. The environment makes me relate to others very nicely and made me a little more extroverted” (Student)

Based on these and many more answers, it was possible to show that PBL methodology, generates a high level of constancy and social interaction. Also, PBL methodology promotes communication, a fundamental aspect in projects' development and this in turn, allowed students to express their opinion in public in a more open and confident way. This was corroborated by a student who answered his survey in English:

“It has been a good experience that provided me with new ways to communicate with other people. For instance, I have been more friendly meeting new people at Uceva University. Also, I feel more comfortable when I want to speak among friends, and of course I improve my knowledge” (Student)

It is important to highlight that not everybody noticed improvement as the following student says:

“Because of attendance reasons, my speaking competence is still the same” (Student)

The previous information exemplifies the importance of persistency when using PBL methodology.

In the same way, students also gave important feedback about the Filter Hypothesis regarding to the oral production. Students’ impressions were in general terms:

“It has improved, as I have increased my vocabulary and my fear of speaking English has diminished. It’s always nervous to make mistakes, but I understand that from these mistakes you learn. I only speak English and I let them correct me to improve more and more” (Student)

Thanks to this kind of appreciation, the importance of affectivity in the process becomes evident, as Stephen Krashen holds in his affective filter hypothesis “low anxiety appears to be conducive to second language acquisition, whether measured as personal or classroom anxiety” pg. 38. [13].

“My oral skills have improved thanks to the good interaction with the group, through music and practices that helps us to understand the language more, learning a new lexicon in the English language in a fun way” (Student)

Krashen also says that there must be strong intrinsic motivation in the individual to have a higher level of acquisition. Based on this, he indicates the existence of two types of motivations: instrumental, which refers to the need to use the language for an end and the integration, which refers to the need of the individual to integrate into a social group [13].

This interview exposed PBL is an effective methodology and brings benefits that in the long run they will serve students to perform in their working life as teachers.

V. CONCLUSION AND DISCUSSION

It is important to highlight that a vital aspect to be taken into account is that Project-Based Learning requires a great deal of time and effort on the part of the students, as well as the teachers. For this reason, the commitment to the project to be developed must be primarily intrinsic. Students’ consistency and participation in the PBL development is essential to promote teacher-student and student-student feedback. [8]

The project was developed according to the guidelines established by the PBL theoretical component, although the research was not intended to defend effectiveness but to test and determine the feasibility of Project-Based Learning in improving oral proficiency in English the results are clear to show an observable progress in this specific skill which is satisfactory and gives rise to future studies in the area.

In terms of Project-Based Learning, its phases for project development are important, as Perrenet states:

This is a cyclical process that includes cooperative reflection on the initial problem and identification of learning needs, then individual self-directed study on learning topics and finally the group application of new knowledge to the problem and synthesis of what has been learned (Pg. 3) [7].

As for the theoretical postulates, it is evident the characteristics and concepts proposed by several authors such as Fernández et al., Mc Grath, [8], [5], [22] could be observed throughout the implementation of Project Based Learning:
• Learning focuses on the student, who assumes a greater responsibility in his own learning, since this learning occurs in small groups of students under the guidance of a tutor who acts as a “facilitator”, and is no longer a mere transmitter of information.
In the learning sequence, real problems are used mainly without any preparation or previous explanation. These constitute the organizing focus and stimulus for learning.

It aims to develop lasting learning and a commitment to lifelong training.

These are clearly evident and let’s glimpse a learning that will serve them properly in this language as students who follow a PBL approach acknowledge to study in order to understand, which is assumed as an intrinsic motivation [8]

Also, the affective variables proposed by Dulay & Burt were: [11]

- Anxiety, since feeling in the company of pleasant people and in a space where learning is important, decreases anxiety levels and constant concern for mistakes.

- The motivation, since this tends to allow good learning in the students as they want to participate or to be able to communicate in the target language.

- Trust, because having greater self-confidence allows true improvement.

In conclusion, PBL methodology implemented in the language classroom upholds a meaningful language learning process. It is also a significant method since it involves technological elements students can easily engage to, the videos and podcasts allow students to be creative and modern. PBL enhances language skills, being oral production one of the most developed skills. Regarding to learners’ internal learning factors, PBL contributes to the improvement of affective aspects, such as anxiety, self-confidence and interaction. [23].

REFERENCES
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