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Exploring the Effects of Implementing PBL to Develop a Unit Plan about Sports in a 4th Grade English Class at a Public School in Medellín, Colombia.

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Abstract

This action research work aimed to explore the effects of implementing Project-Based Learning approach (PBL) to develop a unit plan about sports in a 4th grade English class at a public school in Medellín, Colombia. PBL was implemented in the classroom as a sequence of team work tasks that guided students' exploration of their favorite sport, football soccer, and prepared them for an oral presentation about this sport in a sport fair. Throughout this implementation, some activities, such as creating a new sportive character, discovering my favorite sport, and designing a football soccer scale model using geometric figures, were carried out as part of the project. Data collected included interviews with students, cooperating teacher's checklist and teacher's journals. Findings of this research revealed that there are some positive effects of implementing PBL in the EFL classroom, such as students' favorable attitudes towards English, increase of students' confidence, and their readiness to team work throughout the project.

Key words: Project-based learning, collaborative work, students' attitudes, students' confidence.

Degree Requirement

This action research project is submitted as a requirement of the Bachelor of Education in Teaching Foreign Languages (English-French) at the Escuela de Idiomas, Universidad de Antioquia, in Medellin, Colombia.

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Preface

This paper reports my experience as a pre-service EFL teacher in designing and carrying out an action research project which aimed to explore the effects of implementing Project-Based Learning (PBL) to develop a unit plan about sports in a 4th grade English class at a public school in Medellín, Colombia. The group of students was made up of students from 9 to 13 years old who had some difficulties to use English inside the classroom and that, according to the school curriculum (malla curricular), had to develop a project about sports throughout the school year. Hence, the implementation of PBL started with the planning of a unit focused on students' favorite sports. Along the unit, students had to make different group activities like creating a new sportive character, discovering my favorite sport and implementing geometric figures into the creation of a football soccer scale model. All those activities pointed to the development of a sport fair in which students had to show the knowledge acquired during the classes by exposing about football soccer and its characteristics.

After carrying out this study, I concluded that Project-Based Learning was a useful approach to develop the unit plan about sports. Positive effects of implementing PBL that I found were for example the improvement of students' attitudes towards English, the increase in students' confidence, and their readiness to work in teams. In what follows I provide details about the context, the research problem, the theoretical underpinnings, the intervention, data collection and analysis methods, and the results.

Description of the Context

The Educative Institution Presbítero Antonio José Bernal is located among the neighborhoods Hector Abad Gomez and Plaza Colón in Medellín city, next to Acevedo metro Station. The institution offers an educational program from kindergarten to 11 grade, and also, three technical education programs of systems, electronics, and graphic design.

The institution has two headquarters: the principal one that is located in the neighborhood Hector Abad Gomez; and the primary school, located in the neighborhood Toscana. The primary school offers school education from second to fifth grade.

I am doing my practicum at 4th grades; the school has four groups of this grade. The group in which I am developing my practicum is the C fourth grade group. In this grade, according to the school English syllabus (Malla Curricular), three problematizing questions should be covered throughout three school terms. Each question shows the topics to be worked and the different abilities that students will develop in each term. The questions are:

- First term: Can I describe my city by using expressions and vocabulary in English?
- <u>Second term</u>: How do I express myself about the sports that I like and the free time activities that I do, by using the foreign language?
- Third term: Can I use the numbers in English in different daily situations?

Every single question aims to make students express themselves in the target language about familiar situations or places. This specific grade has two one-hour English classes per week, one of them on Mondays, and the other one on Thursdays.

The classroom in which the English class takes place counts with a T.V and a laptop, as technological tools, right lighting, a white board, two shelves and 20 double school desks arrayed in rows for students to sit in pairs.

In the group, there were 38 students among 9 to 13 years old, who mostly live near the school. In this group of students, there were seven diagnosed with special educational needs.

Statement of the Problem

Although the language, as Lado (1961) said, is composed by four basic communicative skills (speaking, writing, reading and listening), there exist other aspects inside the classroom that can influence the learning of a second language as for example the attitudes towards English, students' confidence and the oral production part from students. In this regard, it is important to look for strategies that allow and encourage students to communicate and participate actively in English as a L2. The implementation of a projectbased learning (PBL) to foment in students the use of English with a purpose will give them the opportunity to express themselves in the classroom.

It is important to consider that, most of the time, these students do not produce any word in English despite the fact that, according to the school English syllabus, at this level, students are supposed to be able to use expressions and to describe orally in English. This happens due to, among other reasons, the fact of being immersed in a context in which they do not need English to communicate with others and for that reason they find it useless for their daily life. In addition to this, students do not know how and why to use the L2, so they prefer to speak in Spanish all the time, even in their English classes. Seeking to overcome this, I find that PBL approach can help students interact with the language as they get

EFFECTS OF IMPLEMENTING PBL TO DEVELOP A UNIT PLAN ABOUT SPORTS engaged in the carrying out of a project. According to Krajcik and Shin (2014), "in projectbased learning, students engage in real, meaningful problems that are important to them" (p. 1). The fact that the language is seen as a meaningful tool to communicate and express their own ideas could motivate primary students from a public institution to use the language to communicate with other.

Research question

What are the effects of implementing PBL to develop a unit plan about sports in a 4th grade English class at a public school in Medellín, Colombia?

General Objective

To explore the effects of implementing PBL to develop a unit plan about sports in a 4th grade English class at a public school in Medellín, Colombia.

Specific Objectives

- To design a project-based learning instructional unit about sports.
- To implement a project-based learning instructional unit about sports.
- To analysis students' gains and difficulties in developing a classroom project about their favorite sports.

Theoretical Framework

In this section, I introduce the three main concepts that will help understand the research problem better and will guide the implementation of this action research proposal: Project-Based Learning approach, collaborative work as part of PBL, and PBL as used in EFL settings. These concepts will be defined from an educative perspective. Firstly, I will EFFECTS OF IMPLEMENTING PBL TO DEVELOP A UNIT PLAN ABOUT SPORTS define Project-Based Learning approach, then I will talk about collaborative work as part of PBL and finally, I will present the benefits of PBL to teach English.

Project-Based Learning Approach

Project-Based Learning (PBL) is an approach in which students work in teams, during an extended period of time on a project. In this project students must work on solving a problematizing question or solving a real-world problem. After having looked for information, they demonstrate the acquired knowledge and their skills through a presentation for a real audience. During the development of the project, students learn not just content, but also some important skills like communication, presentation, organization, time management, research, inquiry, self-assessment, reflection, group participation, leadership, and critical thinking skills. Also, the ideas, opinions and decisions of students are reflected in the final product which results in high quality, authentic products and presentations (Goodman, 2010, p. 2).

Project-based learning (PBL) is a dynamic approach to teaching in which students explore real-world problems, issues and challenges, are inspired to obtain a deeper knowledge of the subjects they are studying and more likely to retain the knowledge gained through this approach far more readily than through traditional textbook-centered learning. (Dornyei, 2001, p. 53). Different authors propose some steps to follow Kriwas (1999) propose the following four stages: First speculation, during this stage, the project topic is chosen. Second designing the project activities, this is the stage in which the groups, the activities and the roles are assigned. Third, conducting the project activities, during this stage the activities proposed. Finally, evaluation, in this last stage all the activities proposed EFFECTS OF IMPLEMENTING PBL TO DEVELOP A UNIT PLAN ABOUT SPORTS for the project are assessed. The collaborative work is an important component of PBL that allows students to interact among them and to produce orally.

Collaborative Work as Part of PBL

PBL is a large teaching model adjustable to all areas of knowledge and different types of learners (Bell, 2010; Habók & Nagy, 2016). Also, the construction of knowledge is accompanied by using the foreign language when the students are involved in solving real-world problems. (Vaca & Gómez, 2017). The students' productive skills are fostered since PBL requires teamwork, students can improve their weaker skills and contribute to the process with their strengths. They develop their interpersonal skills and learn to deal with conflict. "Students can work in a small group or as a class for the completion of a project, but this working together is cooperative rather than competitive, which means that students share resources and ideas throughout the project." (Souliman, 2014, p.55).

Benefits of PBL to Teach English

Project-based learning approach has many benefits when teaching a foreign language. Some authors like Fried-Booth (2002) and Stoller (2006) state that students have opportunities to increase self-esteem and attitudes toward learning. Moreover, "the students develop confidence and self-direction as they move through both team-based and independent work" (Dornyei, 2001, p.57). Increased self-esteem, attitudes, and confidence, according to Haines (1989), gives place to the improvement of language skills. During the implementation of a project, students are immersed in an environment in which they can use the language in a similar way as it is used in the real life. The fact of carrying activities that are focused on students' interests, allows them to enjoy more the activities proposed for the class and, according to Lee (2002), students also enhance motivation in front of the EFFECTS OF IMPLEMENTING PBL TO DEVELOP A UNIT PLAN ABOUT SPORTS language learning. Likewise, throughout the collaborative work, students increase their cooperative skills.

Action plan

To achieve the objectives proposed above for this action research study, I would begin planning an instructional unit about sports, following the principles of PBL approach. During the development of this unit, and taking into consideration the basic English level of the group, subjects like colors, geometric figures, qualifying adjectives, family members among others could be implemented. It should be noted that all the subjects worked in class are aimed to the development of the project about sports.

In order to explore the effects of implementing PBL to develop a unit plan about sports, I would collect data through the following instruments: semi-structured interviews with four students to see their perceptions on the methodology; a teacher journal to check the students' process; and two checklists from the cooperating teacher, one at the beginning and the other at the end of the implementation in order to check students' progress. Data would be analyzed taking into account the three steps proposed by Burns (2010): to organize, code, and compare the collected data.

Development of Actions

The activities implemented during the whole process of the project were organized into two lessons which were developed along the last semester as follows.

During the first lesson, students started to get familiar with some vocabulary that they later used throughout the implementation of the project. In this lesson, during the activity called *Discovering Sports*, I first presented the words to name ten different sports

EFFECTS OF IMPLEMENTING PBL TO DEVELOP A UNIT PLAN ABOUT SPORTS (volleyball, basketball, baseball, football, soccer, skating, swimming, gymnastics, athletics, and handball), showing students how to write and pronounce each one. Then, students kept practicing these words while they started thinking and choosing their favorite sport out of the ten ones presented. Knowing my Favorite Sport was the next activity in which students had to look for general information about their favorite sport in order to find vocabulary in common among them and to practice pronunciation. After having found the vocabulary in common, we created together a list of words about sports that students used along the project. Besides, as the institution demanded to include topics from other school subjects during the third term, such as geometric figures, family members, qualifying adjectives among others, these topics were covered within the whole project. As part of the first lesson, students started to identify the family members by doing a family tree. After that, students had to present their families in front of their classmates, during this activity, students could see that families were not equal than theirs and that it was okay to be different. These differences gave way to the qualifying adjectives which were presented first by me and that then were worked based on the family members. Students had to describe three of their relatives by using the adjectives already worked.

The second lesson began creating a character, during this activity, students had to create a character with some specifications. They had to include: name, age, favorite sport, super power, likes, dislikes, weight, and height, according to that information, they had to draw and present the character to their classmates. After finished the presentations, the whole class voted to select the most creative one and the student who used more English to give them some candies as a prize. After having covered the adjectives, it was time for the geometric figures, which gave way to the creation of a scale model of the court of the sport EFFECTS OF IMPLEMENTING PBL TO DEVELOP A UNIT PLAN ABOUT SPORTS that they preferred the most. During the *Scale Modelling* activity, students had to choose a team with which they had to do the following activities: select a sport, create a scale model of the court in which the sport they had chosen is played, divide the court into the different geometric figures they found in it and paint each part with a different color. This activity took several classes, during those classes, students continued working in teams. Finally, during the last activity, students had to narrate what could happen in each part of the court that they cut previously and explain what geometric figure it was.

Along the development of the project, I used three different data collection instruments. The first one was a teacher journal in which I could check the students' process during the whole implementation. Also, my CT filled out two checklists that allowed me to have a different perception of my implementation of the project: CT checklist 1 was filled out during this first lesson, and CT checklist 2, during the last part of the implementation (see Appendix for an example of checklists). Finally, I conducted semistructured interviews with four students to see their perceptions on the methodology.

Findings and Interpretation

In this section I present the findings that I found through the implementation of this action research study, which aimed to explore the effects of implementing PBL to develop a unit plan about sports in a 4th grade English class at a public school in Medellín, Colombia. All in all, data collected in this action research study indicate that PBL approach had positive effects on students when learning a foreign language. These effects are reflected in improvement of students' attitudes towards English, the increase of students' confidence, and their readiness to work in teams.

EFFECTS OF IMPLEMENTING PBL TO DEVELOP A UNIT PLAN ABOUT SPORTS Improvement of Students' Attitudes towards English

Data showed that the implementation of PBL has a positive impact in students' perceptions towards English. From the beginning of the experience, students had to face English, that is to say, they started listening and speaking in a foreign language, an experience that they had not had before.

Students attitudes towards English began to improve when they perceived that they could learn English in a different way to the one they were used. The fact of being an active part of their own learning, allowed them to find English useful and interesting. Students started to be attracted by the possibility of learning by doing (CT checklist 1 and 2). At the beginning of the implementation, students had to start thinking about their favorite sport, each student could choose the sport that they like the most instead of working on one given by the teacher. This type of activities started to improve the students' attitudes towards English, as can be seen in the following excerpt from an interview with students.

Teacher: ¿Cómo te pareció la metodología empleada en el curso y por qué? Student D: Muy buena porque estuvimos en equipos, realizamos muchas actividades, y pudimos aprender mucho más.

Teacher: ¿Qué te pareció el hecho de hacer cosas diferentes, como las manualidades, para aprender inglés?

Student D: Me pareció super bien porque pudimos aprender de otra manera y no como siempre que se paraban al tablero solamente a hablar. (Interview with students A, B, C, and D - November 8th, 2018).

The previous excerpt gives an account of the students' enthusiasm in front of the English class.

Increase of Students' Confidence

Data also showed that students increased their confidence when they had to use English inside the classroom. At the beginning, students seemed to be shy at the moment of speaking in English or listening to the teacher speaking it. They did not participate in the oral activities or they did not understand the instructions given by the teacher in English. PBL allowed students to be more confident about using English in both, speaking and listening. "Students answer questions in English like: "How are you? what shape is this? And what color is this? Also, students ask for information about pronunciation, meaning and translation of some words or expressions." (Journal entry # 8, September 17, 2018).

Besides, over the time and as the actions were implemented, students started to participate more actively, even they felt with enough confidence to correct others.

Teacher: ¿Cómo te sientes ahora frente al inglés a diferencia del comienzo del curso?

Student A: Seguro porque antes no podía decir las palabras bien, pero ya ahora sé cómo decirlas y ya sé explicarles a algunas personas.

Teacher: ¿Te sientes más seguro a la hora de interactuar en inglés? Student A: Si me siento más seguro, además he aprendido mucho inglés, en las clases he aprendido mucho inglés. (Interview with students A, B, C, and D -November 8th, 2018)

Through this excerpt, the increment in the students' confidence could be noticed and supported.

EFFECTS OF IMPLEMENTING PBL TO DEVELOP A UNIT PLAN ABOUT SPORTS Students' Readiness to Work in Teams

Teamwork was one of the most challenging parts of this implementation due to students had not had the opportunity to work collaboratively with their classmates before. At the beginning and taking advantage of the classroom arrangement, students worked in pairs, with the classmate seated next to him or her, but a couple of classes after, students had to look for a team with which they will perform the final project. It should be noted that the teams were chosen by the students, thus giving them the opportunity to work with the classmates they prefer the most.

When they started working in teams, there were some problems related to the lack of commitment form some students, but these problems were overcome quickly. "There are some problems organizing the teams, two or three students that do not come to class regularly and some others that do not cooperate with the activities." (Journal entry # 10, September 24, 2018). The implementation of PBL gave them the chance to be more responsible, each participant of the group had a specific role to accomplish as I noted down in my journal: "most of the teams divide the activities. In this way, all the members of the team have a responsibility assigned." (Journal entry # 12, October 19, 2018).

Data showed that in general, students enjoyed when English class began "students look excited with the idea of working in teams; they organized their chairs quickly and started to work immediately." (Journal entry # 11, October 04, 2018). This was also seen in the interviews with students where most of them expressed that they felt excited about the English class. The following excerpt exemplifies this.

Teacher: ¿Cómo te pareció la experiencia de trabajar en equipo? ¿Hubo algún inconveniente?

Student 3: Fue bien porque todos convivimos, todos compartimos y todos nos ayudamos entre todos, hubo uno que otro problema, pero por lo menos los logramos solucionar. (Interview with students A, B, C, and D - November 8th, 2018).

The previous excerpt allowed me to support the idea that students were enjoying the English class.

Conclusion

The purpose of this action research was to explore the effects of implementing PBL to develop a unit plan about sports in a 4th grade English class at a public school in Medellín, Colombia. After having analyzed the data collected, it was possible to say that the implementation of PBL had positive effects in students when they had to face English. One of those effects was the improvement of students' attitudes towards English. Throughout the implementation of PBL, students started to enjoy English, they stopped seeing it in the traditional way that they used to do it. English became as an interesting subject in which they could learn lot of things while they were doing interesting activities. As English started to be seen as an exciting subject consequently, there was an increasement of students' confidence. Students started to participate and to use, a little bit more, English inside the classroom, they even felt with enough confidence to correct their classmates when they noticed a mistake. The fact of exposing something in English in front of the whole class was not a problem for them anymore. Besides, due to PBL requires lot of team work, it was possible to notice a students' readiness in front of the collaborative activities. Even though there were some difficulties creating the groups, students overcame them and began enjoying the fact of working with their classmates.

The previous findings allowed me to say that PBL was an accurate approach to teach and to learn a foreign language, in this particular case, English. Those findings revealed that it is time to change the traditional instruction in which the teacher is the only one that has the knowledge. On the contrary, students enjoy having an active role during their learning process, they appreciate the fact of working on topics that they like and the fact of learning by doing. Also, this is an approach in which the teacher as well as the students can notice the progress in front of the language. For this reason, I consider that it is important to implement PBL inside EFL classrooms.

However, there were some challenges in this implementation with which I had to deal. The lack of time during the last semester was the most challenging part that I had to face. Some of the activities proposed for the project had to be carried out quickly because there were classes in which students had to do other activities proposed by the institution and there were also some holydays. Moreover, the misbehavior of some students, did not allow me to profit the entire classes time to do all the activities that I planned for some sessions. Sometimes I had to repeat the same instruction many times because there were students that did not know what to do due to they were talking most of the time. If I had had the enough time to implement the whole project, I am pretty sure that the benefits I found implementing PBL could be more.

Reflection

Finishing a year in which I had the opportunity to be a pre-service teacher and at the same time conduct an action research study, let me know that this is not an easy work. Throughout this process I had to face different types of obstacles that showed me that EFFECTS OF IMPLEMENTING PBL TO DEVELOP A UNIT PLAN ABOUT SPORTS conducting a research being a teacher is a hard work, but that has filled me with good experiences in front of my professional experience as a teacher.

Learning was present along the whole implementation, as a teacher I learnt that it is necessary to reconsider the way in which English is being taught, students need to be attracted by the topics they are learning, not to be forced to do it. I understood that teaching is more than standing in front of a class sharing a knowledge, teaching is about changing lives, understanding realities, being a referent, being, first, a person. As researcher, I had to deal with some problems that showed me how challenging a research study could be, but that enriched me a lot. Researching gave me the opportunity to enhance my discipline, no mattering what the problem was, I learnt that I must pursue my objectives.

Summing up, along this experience, I reflected how challenging could be being a teacher and how rewarding it could be. Every single aspect, that allowed me to carry out this action research study, was important to me as a student, as a professional, and, the most important, as a person.

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Appendix

Proyecto: Explorar los efectos de la implementación de la enseñanza basada en proyectos (PBL) desarrollando una unidad acerca de deportes en una clase de inglés de cuarto grado en un colegio público en Medellín, Colombia. Lista de chequeo Date: _____ LA COMENTARIOS/ PREGUNTA TODOS POCOS NINGUNO MAYORÍA **OBSERVACIONES** ¿Los estudiantes comprenden y atienden a las instrucciones dadas para las actividades? ¿Prestan atención los estudiantes al profesor? ¿Los estudiantes participan de las actividades de la clase?

¿El profesor utiliza						
materiales						
adecuados para el						
desarrollo de la						
clase?						
¿Los estudiantes						
finalizan las						
actividades						
propuestas?						
¿Los estudiantes						
preguntan o buscan						
ayuda del profesor?						
¿Los estudiantes						
utilizan el idioma						
inglés en clase?						
Firma docente colaboradora:						