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Autora

María Viviana Castrillón Álvarez

Universidad de Antioquia

Escuela de Idiomas

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The Effects of Implementing Inquiry-Based 5Es Model on grade 9 EFL Students' Interest
and English Language Progress

María Viviana Castrillón Álvarez

Universidad de Antioquia

Practicum and Research Advisor

Mg. Maria Margaret McNulty

Thesis Advisor

Mg. Iván Darío Flórez

Medellín

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Abstract

This action research aimed to explore the effects of implementing the Inquiry Based Learning 5Es Model to enhance ninth graders' interest and promote their language progress in the English class. It took place in a public school in Medellin, Colombia. The participants were 42 students, my two cooperating teachers, and myself. The pedagogical actions followed the five phases of the model: Engage, Explore, Explain, Elaborate, and Evaluate. Data collection instruments included preservice teacher and student surveys, teacher journal, and a class discussion. Findings suggest that implementing the 5Es Model helped to raise student's interest and participation in class, and enhance their self-confidence to use English. However, implementing the model also posed challenges that hindered students from obtaining better results.

Key words: EFL teaching, Inquiry-Based Learning, 5Es model.

Requirement Page

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Preface

This text presents the results of an action research project carried out in my experience as a preservice teacher in a public school, I. E. Doce de Octubre, in Medellin, Colombia. The purpose of my project was to explore the effects of implementing the Inquiry-Based Learning 5Es Model to enhance grade nine students' interest and promote their language progress in the English class. The participants were a group of 42 students with different learning styles such as auditory, kinesthetic, and visual.

However, I could observe that most of these students were not comfortable with the English class or the teaching methodology since their behaviors in the classroom showed a negative attitude. For example, they did not like to participate in the different activities and their interest decreased although most of them liked English. For these reasons, I implemented a unit based on the 5Es model, which helped me encompass students' different learning styles, and where the lessons are developed through five phases: Engage, Explore, Explain, Elaborate, and Evaluate. In each phase, it is necessary that students use different learning abilities such as learning to think, doing questions, working in groups, and self-learning.

Finally, I used three data collection instruments: preservice teacher and student surveys, teacher journal, and class discussion. From the data analysis, it was possible to see that through the implementation of the Inquiry Based Learning 5Es model students' interest changed at the same time that their speaking skills and their self-confidence increased, which caused a positive impact on their English learning process.

Description of the Context

In this section, I will present information about the school and its community, the EFL curriculum, and the participants in this action research project.

I.E. Doce de Octubre

I.E. Doce de Octubre is an official, public elementary-high school in Medellín. It is a big school with approximately 2,000 students and 66 teachers, located in the Commune 6 of the northeast area of the city. Specifically, it is in the residential neighborhood Doce de Octubre that has a predominantly low socioeconomic level. It is a multi-use zone with residential homes, a public library, a sports zone, a hospital, a fire department, a police-station, and residential homes.

EFL Curriculum

As part of the Colombian government's National Bilingualism Program, students in grades 1 through 11 are required to study English as a Foreign Language. The EFL curriculum is based on standards proposed by the Ministry of Education in an official document titled - The Basic Standards for Competences in Foreign Language: English (Guia 22). The curriculum includes the four basic skills of listening, reading, writing, and speaking, and broad questions to explore diverse topics. The main goal of EFL instruction at the school is to develop students' communicative competence through the methodology of project work.

Participants

In the grade 9 EFL classroom in which this action research took place, the participants were myself as the pre-service teacher, my cooperating teacher (CT), and the 42 students. I have an interest in the school's project work methodology as I believe

students can have the possibility to explore and gain knowledge while showing their creativity and skills. My CT is working on a doctoral degree in education, and he is a graduate from an undergraduate program in translation at a nearby university. Our class has 42 students, 22 girls and 20 boys, who take English three times a week; one hour on Wednesdays, and two hours on Fridays. The majority of them like English, and they are interested in learning it as they know it is important for their lives. Few students do not take this subject because of having negative experiences in the past. Most students believe their English skills are basic and that they need to learn more vocabulary, grammar, and pronunciation (Student survey, 1 march, 2019). Their learning styles include auditory, kinesthetic, visual, and others like social and solitary. More students prefer individual seatwork, or small groups being competitive, while fewer of them like a teacher-centered class, or pair work. These students take our English class in room 10, it is the classroom assigned by English class and they go to other classrooms for their other subjects. Our English classroom is large with good lighting. At the front of the room, there is a whiteboard, a TV with multimedia, a video beam, and a teacher's desk.

Statement of the Problem

During my first month of observations of English classes in the school context described above, I noticed that regular lessons were developed with a focus on recognizing recycled vocabulary related to a simple topic, reducing students' opportunity to be exposed to English as a whole in a real context related to their lives, and to use English meaningfully with others. Besides, lessons followed the same structure: the teacher greeted and asked some students about their personal information or their daily routine. After that, he showed some flash cards about the class topic in order for students to match the pictures

with the words, or memorize the order of such pictures. Then, the teacher presented new vocabulary and asked students to repeat the word pronunciation after him. Later, they wrote some simple sentences in the present tense using the new words. The teacher also gave short explanations about sentence structure and other grammar issues.

This problem might stem from at least three factors: the CT's beliefs on his students' learning needs, students' attitudes, and the learning materials. Concerning the first factor, the CT believes that his students, as beginners, need to learn English in parts rather than as a whole, based mainly on vocabulary learning. During several informal conversations with him, I understood that he thought his students needed to learn vocabulary because they had a very low English level. He would often say that they came without any previous knowledge or ability with English; for example, they had no knowledge of grammar, and were unable to ask a question. Because of this, he thought it was important that the classes focused on vocabulary and the simple verb tenses so that when he had these students in grades 10 and 11, then he would be able to work 'better' in English. Besides, he expressed a concern that in the previous grades, there was no emphasis on oral language development (personal communication, February to March, 2019). Therefore, his beliefs supported the notion that learning English in parts, rather than as a whole discourse, was a need of his students in this grade 9 class.

The other two factors have to do with students' attitudes and the learning materials used in class. It was possible to observe that students had a good attitude when the class began since they answered the teacher's simple questions about themselves, for example, their names, ages, nationalities or where they study. However, when the activities introduced new vocabulary about the same topic, the students' attitude changed: they did

not like participating; they only repeated the words after the teacher; and they transcribed the words in their notebooks (Class observations, March, 2019). If any student made a question about grammar structure, pronunciation rules, or another word, most students did not pay attention to the teacher's answer, so they continued making the same mistakes during the activities, such as matching, repeating words, and making simple sentences in present (Class observations, March, 2019). As for learning materials, the class was developed by looking at recycled vocabulary with audio-visual material that was projected by videobeam on the board, and occasionally the teacher handed out a piece of paper with some sentences or fill-in-the-blank exercises.

Therefore, I concluded that the lessons needed to be restructured with sequenced activities in a way that would give students exposure to meaningful topics and content, and opportunities to use English as they explored the topic or content. With this goal in mind, I considered that the 5E's model discussed could be a useful way of teaching English to these students in grade 9.

Theoretical Background

The following theoretical background focuses on three important and interrelated areas: The EFL teaching methodologies suggested by the Colombian Ministry of Education (MEN), the definition and characteristics of Inquiry-Based Learning as a teaching approach, and the definition and stages of the 5Es teaching and learning model.

EFL Teaching Methodologies and MEN

Colombia's Ministry of Education (MEN) has proposed to develop three different methodologies to teach English in secondary schools: Task-Based Learning for 6th and 7th grades, Project-Based Learning (PBL) for eighth and ninth grades, and Problem Posing

Learning for grades 10 and 11 (MEN, 2016). The second methodology proposed by MEN, PBL, focuses on student learning in a fun, holistic, democratic and motivating way, where developing projects in real life and language use are fundamental aspects to carry it out, giving students the opportunity to have significant learning experiences. To activate students' knowledge, PBL proposes activities such as the KWL scheme: *K* stands for Know (i.e., what students know about a topic), *W* stands for Want (i.e., what students want to learn about it), and *L* stand for Learn (i.e., students' reflection about what they have learned) (MEN, 2016: p. 34).

Inquiry Based Learning: Definition and Characteristics

Since MEN has granted each institution autonomy to choose the methodology that will be most convenient for their context (MEN, 2016, p. 20), another methodology Inquiry-Based-Learning (IBL) proved suitable for the school context in which this action research project was carried out. In this paper the word "Inquiry" should be understood as an exploration in which students seek information by posing questions, moving from the known to the unknown in the process of constructing information, and applying sense to real life situations (Learning, 2004, p.1). IBL is defined by Learning (2004) as a learning process where students are involved in their learning, and where they build new knowledge and meanings through questions and inquiry. Additionally, IBL is presented as a new way to motivate learning EFL students in the classroom, and to increase their creativity, positive thinking, and independent work (Learning, 2004. p.11).

Furthermore, IBL as an instructional model with a constructivist approach emphasizes that "when students construct personal meanings and understandings" (Hoang, 2010) and, also that learning is seen as an active creative process of construction rather than

acquiring knowledge. Students are involved in their own learning, that is, a “learning to learn” process in which they can explore and build their own answers, involving affective (feelings) and cognitive (thinking) experiences. Additionally, IBL not only uses academic contents but also different real-life situations that could be interesting for students (Learning, 2004). According to Pedaste et al. (2015), although IBL us unfolds in several phases that together make up an inquiry cycle, “different variations on what is called the inquiry cycle can be found throughout the literature” (p. 47). One of these variations is the 5Es model, which is described below.

5Es Teaching Model

The 5Es model is a teaching methodology, through which IBL can be implemented in the classroom, developed in the late 1980s by Roger Bybee. It is actually an instructional model used by the Biological Sciences Curriculum Study, and consists in a learning cycle with 5 phases: *engagement*, *exploration*, *explanation*, *elaboration*, and *evaluation*. As stated by Bybee (2009) each of these phases “has a specific function and contributes to the teacher’s coherent instruction and the students’ formulating a better understanding of scientific and technological knowledge, attitudes, and skills” (p.3). These functions are described as follows.

Engagement. The first phase of the 5Es model enhances students’ interest and curiosity in the learning task by triggering their prior knowledge. The student mentally focuses on an object, situation, or event. The engagement activity introduces a new problem and makes connections to past and future activities. In this phase, the teacher does not provide instructions or explain concepts (Bybee, 2009).

Exploring. Through exploration experiences, this second phase provides students with a common base that teachers and students can use later in their new understanding and skills. This phase should be concrete and meaningful for the students. In this phase, the teacher has a role of facilitator/coach, and gives students the opportunity to interact, discuss, and argue through activities that allow them to enhance their adapting skills (Bybee, 2009).

Explanation. According to Bybee (2009), this phase “focuses students’ attention on a particular aspect of their engagement and exploration experiences and provides opportunities to demonstrate their conceptual understanding, process skills, or behaviors” (p.5). This is the process where the concepts, processes, or skills should be plain, comprehensible, and clear. It is teacher-directed and consists in instruction (Bybee, 2009).

Elaboration. The transfer of learning and the generalization of concepts and skills are the main goal of the elaboration phase. Here the teacher allows learners to use their new knowledge and understanding of a given topic to continue exploring it. In addition, according to Bybee (2009), this represents “an opportunity to involve students in new situations and problems that require the application of identical or similar explanations” (p.8). The Elaboration phase involves also cooperative learning when students engage in interactions where they can use their knowledge to give and receive classmates’ feedback.

Evaluation. In this phase, both learners and teachers reflect on how much learning and understanding they have achieved. It encourages students to assess their understanding and abilities, and gives teachers an opportunity to evaluate student progress toward achieving the educational objectives. Here, students also receive feedback.

In EFL teaching and learning, students and teachers may develop specific cognitive skills while engaged in study of specific topics and concepts. With the 5Es model, students and teachers could develop abilities that will contribute to their adaptability, self-management, problem solving and learning to think. Doing this is likely to result in an interesting and motivating learning experience for students.

Research Question

What effects can the implementation of the IBL 5Es model have on grade nine students' interest and language progress in English?

Objectives

General Objective

To explore the effects of implementing the Inquiry Based Learning 5Es Model to enhance grade nine students' interest and promote language progress in the English class.

Specific Objectives

- To design an IBL 5Es model unit that includes issues related to students' lives.
- To trigger students' background knowledge and experience.
- To encourage students' ability to pose questions about class topics.
- To promote student interaction through group work during the five stages of the model.

Action Plan

To achieve the general and specific objective mentioned above, I designed and implemented an instructional unit following the IBL 5Es Model. Besides, to answer my

research questions I designed and administered a series of preservice teacher and student surveys along the implementation of the project, took notes of my classroom observations in a teacher journal, and carried out a class discussion at the end of the implementation.

Development of the Actions

The implementation of this project took eight weeks in which I developed the five phases of the model: Engage, the first phase, lasted two 30-minute lessons (see an example of a lesson plan corresponding to this phase in Appendix A - Engage Lesson 1) ; the second phase, Explore, took five 30-minute lessons; the third phase, Explain, lasted one 50-minute lesson; the phase Elaborate took two 40-minute lessons; and the fifth phase, Evaluate, two 50-minute lessons. Each of these phases began with a warm-up activity that aimed to keep the students engaged with the whole learning process and move their previous learning to new knowledge. A description of classroom activities carried out in each phase can be seen in Appendix B - Development of Actions.

To collect data, I used the following data collection instruments: a preservice teacher and student survey was conducted at the end of each phase in order to learn about how students' behaviors, attitudes, and learning process had changed; a teacher journal was used to record aspects of students' participation, performance and behavior during classroom activities; and class discussion was conducted with the whole group to gain further insights on the students' opinions and attitudes about their learning process during the implementation of the project and their self-reflection. A description of these data collection instruments can be seen in Appendix C - Data Collection Chart. To analyze the data, I repeatedly read the sources and used color-coding to find patterns that helped me answer the research question. Then I made a chart in which I summarized the excerpts that

showed evidence of such patterns (see Appendix D - Data Analysis Chart). From this chart, I came up with three broad categories I describe and discuss in the following section.

Findings and Interpretations

The purpose of this action research project was to explore the effects of implementing IBL 5Es model with a group of ninth graders at public school. Specifically, it aimed to see how this model could help enhance students' interest in learning English, as well as promoting their language progress. In what follows I describe and discuss the following three categories: Raising student's interest and participation in the English class, Enhancing students' self-confidence to improve English speaking and listening skills, and Challenges in implementing the 5Es model.

Raising Students' Interest and Participation in the English Class

The data show that implementing the 5Es model helped enhance students' interest in the topic and the activities in the English class. This could be seen when students showed an increased enthusiasm about continuing the exploration of the topic "waste management" in the class. For example, one student asked me "will we continue with the same theme from the previous class, teacher?" and when I answered yes, I saw a happy expression on their faces (Journal, entry 2, Sept. 20). In this excerpt, we can see how students were motivated to take the English class because they thought the topic was interesting, which raised their expectations and helped create an appropriate learning environment. The following excerpt shows how the change in students' attitude towards the English class contributed to improving the learning environment: "yo mejoré mi actitud, porque antes de usted y su proyecto ya no me gustaba el inglés, y con el profe que comenzamos, qué pereza,

no hacíamos nada. Entonces aprovechábamos el tiempo para dormir” (Student 7, class discussion, Nov. 15).

When implementing the 5Es model I noticed that it helped increase students’ interest in the English class as it suggests exploring topics that catch students’ attention, such as “waste management”, thus improving the learning environment.

Moreover, students also wanted to participate in the different classroom activities proposed following the 5Es model. This can be observed in their positive attitudes to do these activities independently, taking control of their own learning process. For example, in my teacher journal I described the following event.

When I told them that we were going to start with the first part of the activity, many of them answered that they were already doing it. They told me that it was better if I gave them time as they were doing it alone; that I went better through the groups checking or helping them. Many of them accepted this change. (Journal, entry 8, Oct. 18).

In this excerpt, we can observe that students were motivated to learn, and this good attitude encouraged them to do the activity on their own, using their previous knowledge. They also asked the teacher to go around the class to help them when necessary.

Another example that shows how students’ interest reflected in their active participation in the classroom activities comes from the survey. When observing students’ participation in class, during the third phase, Explain, in which we were reviewing their learning about the 3Rs (Reduce, Reuse, Recycle), I noted down that “they were very active, gave their opinions, answered the different questions and gave their own definitions” (Preservice teacher survey, Explain Phase, Q6). In addition, in the student questionnaire,

one of the students stated, “I participated actively in all the classes, I like the way how she (the preservice teacher) raised our environmental awareness in her class.” (Student 9, Student questionnaire, Explore Stage).

In sum, when developing different activities through the phases of the 5Es model, the data collected show that it helped enhance students’ interest in the proposed topic, waste management, and the activities such as watching a video about the importance of natural resources and classifying renewable and non-renewable materials, in the English class. It could also be seen that students moved from a passive attitude to an active attitude towards learning English.

Enhancing Students’ Self-confidence to Improve their English Speaking and Listening Skills

The data show that implementing the 5Es model helped students in their language process to improve their speaking and listening skills. This was possible due to the fact that students increased their self-confidence about their English knowledge. Although students were initially reluctant to participate, their participation increased in the speaking activities done in the English class, and they showed that they were able to answer questions about the topic of the 3Rs. For example, in my teacher journal I wrote that “When I ask those students who show disagreement, they just remain silent, nod to show agreement, or say ‘*No me pregunte profe*’. I think some of my students are not comfortable sharing their ideas with the whole class” (Journal, entry 2, Sept. 20). Also, in the Preservice teacher survey I wrote about the low students' oral participation “I encouraged the students to answer different questions (...), but they were not accustomed to doing it and their participation was poor” (Preservice teacher survey, Explore Phase, Q3). In these excerpts, we can see how

students did not participate in the class activities at the beginning of the implementation of the 5Es model, probably due to their lack of opportunities to participate and their lack of confidence in using English.

It was through constantly eliciting students' participation throughout the activities that they eventually started to participate. The following excerpt shows how students increased their speaking participation:

The good thing was that when we needed something, you explained to us until we understood. Then, you already let us working with our classmates. Another thing is that you asked us many questions that we all had to answer some. I liked that!
(Student 15, class discussion, Nov. 15)

In this excerpt, we can observe that students gained confidence to express their ideas about the environmental issues seen in class after having a better understanding of these topics. This was possible through the teacher's continuous support and encouragement, which made it easier for them to use their knowledge.

Furthermore, working in groups also helped students increase their self-confidence to develop activities proposed following the 5Es model. This could be observed during the development of different activities proposed to work in groups, such as *How much litter are there at school? Highest and best use of resources, and What I know about the 3Rs!* For example, in a student questionnaire, one of the students stated that "when we work in groups, you can see the difference" (Student 6, Student questionnaire, Explore Phase). Also, in my pre-service teacher I remarked the following "I consider that it is necessary to give them the opportunity to work in groups because they are more expressive with their classmates, it is easier to them express, ask questions, solve doubts with their classmates"

(Pre service teacher surveys: Elaborate Q9). In these excerpts, we can see how working in groups was positive to increase their self-confidence and develop their speaking skills, and how it made it easier for them to express their opinions among classmates. Moreover, the student questionnaire done in the Explore phase showed that the 5Es model favored group work. In this questionnaire, 34 students out of 40 who answered the question about group work said that the proposed activities highly promoted collaborative work.

As a result of increasing students' self-confidence, their attitudes towards English language and learning, which were initially negative, changed. The next excerpts show how students' self-confidence increased and their negative attitude about English changed. For example, in a student questionnaire, one of the students wrote "I pay attention, and I participate in the class, every time I learn more and participate more" (Student 11, Student questionnaire, Explain phase). Another student wrote, "It was difficult for me, but I can overcome the obstacles, learning and memorizing the structures" (Student 22, Student questionnaire, Elaborate phase). In these excerpts, we can see how students changed their attitudes towards English since they started to pay more attention, which triggered their participation, and gained confidence to overcome difficulties.

Other examples of this come from the students' opinions given during a class discussion about the implementation, which show how students' attitudes change and how they were able through the increase their self-confidence to improve their English. When I asked students about their feelings about English language process in our class discussion, they expressed opinions such as "how I learned what I needed or what I did not know, so I changed my attitude, and now I do not have laziness to learn English." (Student 9, class discussion, Nov. 15) Also, another student said "I learned a lot of, I learned that the English

is not difficult, only we had very boring teachers who do not know how to treat us and for that, I did not want to enter the class” (Student 9, class discussion, Nov. 15). These two excerpts show that, although some students were reluctant to participate in class, most of them changed their attitudes towards English, which encouraged them to learn and participate more.

Finally, the results in student questionnaires done in each phase of the model (Engage, Explore, Explain, Elaborate and Evaluate) also indicate that they perceived an improvement in their listening and speaking skills. In each of these questionnaires, students were asked to assess their ability to understand and produce English on a scale from 1 to 5. In the first phase, Engage, in scoring their understanding and production of English, 16 students out of 36 who answered the questionnaire gave themselves 3 points, which suggests that they were not satisfied with their English knowledge and their need for improvement. In the questionnaire done in the second phase, Explore, 17 out of 40 students who answered the questionnaire assigned 4 points to their understanding and production of English, which showed that students' learning and self-confidence had improved. In the third phase, Explain, most of the students, 21 out of 31 who answered the questionnaire, graded their understanding and production of English with 4 points, suggesting that they believed their English had improved very much. In the fourth phase, Elaborated, 24 students out of 35 who answered the questionnaire graded positively their understanding and production of English with 4 points, showing that their self-confidence, their motivation, and their understanding had increased with each stage. Finally, in the last phase, Evaluate, 24 students out of 34 who answered the questionnaire graded their understanding and production of English with 4 points, which indicates that they were

comfortable with their new knowledge, and they had gained confidence to learn English and participate in the classes.

Challenges in Implementing the 5Es Model

The data show that external factors such as the continuous classroom interruptions, the insufficient class time, and the inconsistency in the class schedule during the implementation of the 5Es model hindered students from obtaining better results in their language learning process. This could be seen, for instance, when continuous classroom interruption affected the project development, and it could not be completed in time. This project was designed to be developed in three weeks, but its duration was 9 weeks. It was possible to observe the students' low motivation and less interest in their processes. In my teacher journal, for example, I continually wrote about these interruptions.

After I had had the students' attention, and when I was going to give directions for the next activity, there was an interruption by the principal through the speakers. (...) My class development was affected again and that worries me a lot because my project, that was planned to develop in 20 days. We took 15 days and we only have development one stage of five phases, really, the time will not give me, as the time set is very different from the real time of classes. (Journal, entry 5, Sept. 27).

In this excerpt, we can observe how the external factor of interrupting classes affected the project development in terms of time and the sequence of the activities planned. These interruptions came unexpectedly and distracted students' attention and engagement in the activities especially when students were "judiciously working in an activity, interested in this activity, there were some interruptions by the coordinator, the

director, or someone else who would come to the classroom to give some information, so that the class ended before time” (Journal, entry 4, Sept. 25).

Beside these constant and unexpected classroom interruptions, class time usually was not enough to complete the planned activities.

On Wednesday, the schedule is very short and sometimes the class time with the students is not sufficient. ... When students are motivated and working in some activity is time to change class. ... (I need to change all my activities because there is no time to develop the different activities. This affects the development of my project since I bring the activities proposed for a certain duration, and when I am implementing them, it is not possible and it is very difficult). (Journal, entry 4, Sept. 25).

In this excerpt, we can see how students’ interest in the class activities decreased when the activities were not completed during class time. This factor also affected the development of the class and the implementation of the project because some activities were designed to be done in a certain amount of time and, having actually few times for their development, it was necessary to redesign them. For example, one of the students noticed this difficulty and recommended that “It would be very good if you could organize better the activities time, so we can finish the activities proposed in class” (Student 6, class discussion, Nov. 15).

A third external factor that brought challenges to the implementation of the 5Es model was the lack of a consistent weekly schedule for the English class. Although the English class was scheduled Wednesdays and Fridays, this was often unexpectedly changed. As a consequence, this became “a big factor that affected students’ motivation.

Although they were interested, they had some preoccupation because they did not remember all the activities had worked on” (Pre service teacher surveys: Elaborate). On top of this, due to some remodeling works done at school from October to December, there was not a fixed classroom for English classes. Instead, the teacher and students were assigned in an improvisational manner, to move to different classrooms according to the availability of spaces. For example, as I wrote in my journal, one day when

I arrived to teach the class, the English teacher could not work in his usual classroom as they were renovating its floor. Then the coordinator assigned us another classroom, this classroom makes planning difficult because this day I needed the PC for the activities and this new classroom does not have one.

(Journal, entry 7, oct 16).

In this excerpt, we can observe how an improvised change of classroom could affect the appropriate development of activities as it was planned. This led to an improvised adaptation of the activities to compensate for the use of resources and materials that initially were needed, which affected students’ English learning process.

In sum, the implementation of the 5Es model to help ninth-grade students improve their English skills resulted in an increase of students’ interest and participation in the English class, as well as an enhancement of their self-confidence to use English. However, this did not happen without some challenges, such as the continuous classroom interruptions, the insufficient class time, and the inconsistency in the class schedule, which hindered students from obtaining better results in their language learning process.

Conclusions

The main purpose of this action research project was to explore the effects of implementing the Inquiry Based Learning (IBL) 5Es Model in order to enhance nine grade students' interest and promote their language progress in the English class. In general, the findings show that the IBL 5Es model effectively enhanced students' interest and helped them in their English language progress. First, the findings show that the 5Es model increased students' interest and participation in different activities proposed in the English class and how students changed their attitude towards learning English. Second, implementing the 5Es model improved their speaking and listening skills enabling students to increase their self-confidence about their English knowledge. Finally, findings indicate that external factors hindered students from obtaining better results in their language learning process.

Therefore, implementing the IBL 5Es model in the English class might be a useful strategy that language teachers in public schools may explore to obtain similar or even better results. This model also enables teachers to cross English with the topics of other school subjects as it was done in the implementation reported here, in which students worked on waste management and the 3Rs (Reduce, Reuse, Recycle). Besides, the model allows developing the students' ability to be more responsible about their learning through increasing their self-confidence. Furthermore, it is very important to understand that students' interest is different from teachers' and their motivation is attached to it. Especially in public schools, English teachers should teach based on inquiry learning since when students learn to make questions their learnings are most significant. However, when implementing this model, teachers should take time to

prepare students to work in groups more effectively, and continually encourage them to give their opinions.

Finally, teaching English in public schools still poses plentiful challenges to face. To deal with such challenges, preservice and in-service English teachers should continue examining the usefulness of implementing new approaches to teaching and learning English instead of reproducing memoristic, repetition, translation, and grammar-based instructional methods. IBL 5Es model is an example of a teaching approach that might prove to be helpful to teach English in public schools. Thus, English teachers can prepare to teach their lesson following such a model, which is in fact one of the strategies proposed by the Ministry of Education in its Suggested Curriculum.

Reflection

The experience of teaching English in a public school with a group of nine grade students, and doing action research during the practicum year was indeed enriching to my professional development. When I had the opportunity to face a real school context as a preservice teacher, with real students, and real situations, I changed my thinking about the teaching and learning process. This process depends not only on teachers' strategies and students' disposition, but also on many factors such as the place where the school is located, the students' personal situation, the teacher's attitudes, and unexpected changes in the school schedule. Although the development of this project was certainly interesting and satisfactory, there were some aspects that I think could have been better. For example, if I had the opportunity to carry out a similar project next time, I would change the part when I selected the unit topic on my own, and consider the student's interests.

Throughout my undergraduate studies, I have had the opportunity to think "why do I want to teach?" After my experience, I have learned that being an English teacher is not only about teaching English, it is about understanding that not all students learn the same way as I do. They have their own needs and I am the one who must adjust the teaching methodologies to their styles. After completing this project, I feel that it is important to continue with my preparation as a teacher. In particular, I need to learn more about classroom management since planning lessons is very different from implementing the planned activities in the classroom. In the classroom, a lot of things happen that are not possible to comprehend if one is not present there, and if the teacher is not capable of taking control of these situations, it can affect the development of lessons.

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Appendix A

Engage Lesson 1

Lesson 1: Friday, September 6, 2019 100-minute class

Lesson Topic: What do we know about waste and waste management?

Purpose of Stage: Engage students in a new topic, activate prior knowledge and monitor students' learning.

MEN Standards:

Reading: Leo y comprendo textos cortos y sencillos sobre temas que me son familiares.

Listening: Comprendo y participo de actividades orales dando ideas generales en lenguaje claro y sencillo.

Objectives (skill, task):

Reading: Identify different waste that people produce from the video and the pictures. and readings

Listening/Speaking: Ask and answer questions about the issue of waste management (in the video and pictures).

Task: Express what they know about waste and waste management in a KWL chart

Vocabulary: Waste, waste management, a landfill (site), hierarchy of the 3Rs (reduce, reuse, recycle)

ACTIVITIES

1. **WARM-UP** (10 min., whole class)

Show 4 pictures of waste in the neighbourhood and at the school.

Ask students: “*What do you see? Where is this? What do you think about this? How do you feel?*”

Wrap-up: Ask students: “*What is the topic of our project?*”

“*Is this topic interesting for you? Yes? ___ No? ___ (count students' hands)*

“*Is this topic relevant for you? Yes? ___ No? ___ (count)*

2. **TOPIC QUIZ** (60 minutes, whole class, individual, whole class)

Part 1 (20-30 min.) Give each student the quiz. (ANNEX 1)

a) Tell students: *“This is not a real quiz. I want to motivate you with this topic. Look at part 1. It has interesting facts about the topic. First, I will read the questions in English and revise your comprehension. Then, you will answer the questions individually.” (10 minutes)*

Tell students: *“OK, what are your answers. Student X, please read question 1. Student Y, please give me your answer. Any other possible answer? Well, the answer is Z!”*

b) Tell students: *“Ok, now I will show you several pictures and a short video of how we manage our waste.” (10 minutes)*

What did you see? Where is it? What do you think about that? How do you feel? Can we improve this situation or problem?”

Part 2 (10-15 minutes)

Tell students: *“OK, now you can tell me what you know about the topic. First, I will read the questions in part 2 and check your comprehension. Then, you will answer the questions individually.”*

Tell students: *“OK stop. What are your answers. Student X, please read question 1. Student Y, please give me your answer. Any other possible answer? Well, the answer is Z! (continue...)”*

Part 3 (3-5 minutes)

Tell students: *“OK, part 3. I am learning about this topic. (waste and waste management) . I have an important question about this topic. My question is X. (write it on the board).”*

“Do you have an important question about this topic? Or 2 or 3 important questions? Try to write open questions (not yes or no answers). Please write your question(s) in English or Spanish.”

Wrap-up: Tell students: *“OK. You know something about the topic. The topic is interesting and relevant for you (their answers in the warm-up). Next class, I will share the important questions you have.”*

to next class “you should bring the two columns in this graph. “ the first column is about what do you Know about the topic?, and the second column is about what do you Want to learn about the topic?” (KWL chart)

Appendix B

Development of Actions

Step	Objective	Classroom Activities	Data Collection Methods
Engage	Create interest, access/connect to students' previous knowledge/experience, focus topic	<ol style="list-style-type: none"> Students viewed pictures and a short video of how we manage our waste." Students did a fake quiz Students answered the KWL chart 	Preservice teacher survey engage Students survey Engage Teacher journal
Explore	Students experience concepts, use new skills (e.g. classify concepts, establish relationships and understanding with concepts, make generalizations), examine their thinking, work together in groups	<ol style="list-style-type: none"> classify natural and resources: renewables or non renewables observed and classify how much litter are there at school? Identified what type of litter /waste do we have at school? how can we classify it? watch the video "doing the 4 Rs" read main concepts concepts (3Rs), defined and related each concept with each picture, Collaborative Learning Activity: Students organized the 3 pictures into the 3R hierarchy. design a poster 	Preservice teacher survey Explore Students survey Explore Teacher journal
Explain	Connect students' prior knowledge to new discoveries, communicate understandings, connect informal to formal language	<ol style="list-style-type: none"> Students Questioned -Answered Referential Activity Students Read and explained keys concepts/vocabulary. (clarify misunderstanding) oral and group activity 	Preservice teacher survey Explain Students survey Explain Teacher journal
Elabore	Students apply new learning to a personal (familiar) situation or problem, extend concepts being explored, communicate new understanding with formal language (with a final product)	Make a poster about 3Rs	Preservice teacher survey Elaborate Students survey Elaborate Teacher journal
Evaluate	Asses understanding (teacher assessment, student self-assessment), demonstrate understanding of new concepts in a situation or problem, show evidence of learning/accomplishment (final product)	<ol style="list-style-type: none"> Posters presentation Activity co-evaluative 	Preservice teacher survey Evaluate Students survey Evaluate Teacher journal Class discussion

Appendix C

Data Collection Chart

Research question:					
What effects can the implementation of the IBL 5Es model have on grade nine students' interests and language progress in English?					
	What?	How?	What for?	Who? / where?	when? / how often?
Students interest	Interest towards the topic (waste management), lessons activities (identify, organize, classify, and final product), materials learning English	Student questionnaire 1 and 3	To observe students attitude to topic, activities and materials	All students in class	After stages 1 and 3 During the posters presentation
	What they learned (language progress), what helped them learn (English rules, class activities, work groups) , what difficulties they had (input, output, class development), what didn't help them learn (personal factors, external factors)	Class discussion students- teacher	Know students' perception and interest about the new methodology, and students new English learning process	All students	After the fifth stage, at the end of the project.
	IBL 5Es Model to learn English. Class development (5Es), teaching strategies. (collaborative works, work groups, project work.)	Pre-service teacher journal	Identify the positive opportunities to learn English with this new method	Pre-service teacher at home	At the end of each stage.
Students Language Process	What they learned, with activities, and class participation.	Student Work (in class, homework, final project- posters about 3Rs)	Explore gains and difficulties in their English learning process	All students in class	During the different stages and Class activities.
	Perception about their English learning process (oral, write)	Class discussion students- teacher student questionnaire 1,3, and 5	Identify what listening and speaking skills they could improve, what they think about their advantage or difficulties in learning English,	All students in class	After the fifth stage, at the end of project.

Appendix D

Data Analysis Chart

Journals	Pre service teacher surveys Engage	Students Questionnaire	Class discussion	Claims
<p>(...) I felt a bit frustrated because I was worried that this problem could have a reverse effect on their interest for the theme. On the other hand, I looked at the situation as an opportunity for me to better manage students' attention and focus during the activity. (...)</p> <p>When the video began playing, some students expressed their dissatisfaction by making comments: "No Profe!" "Que pereza!", "¿Como vamos escuchar todos?" I asked them to be silent again, (...). Although some students were distracted, after a few minutes, more of them began getting focused on the video.</p>	<p>Question 1: I could observe that they had curiosity related with the topic (...) After the video they demonstrated real interest or preoccupation about the environment issues, the waste management, and the possibles causes-consequences that we could be life in the future years if all people do not take actions to care the planet.</p> <p>In the second activity -KWK chart. their interest were left. most of time they did not know what they must to do (...) they were interesting because it was developed in Spanish (most of students) (...) In the last activity Fake quiz, they lost their interest in the activities</p>	<p>Questionnaire 1</p> <p>20 students out of 36 found the tasks very interesting</p> <p>14 students out of 36 thought that their english increase.</p> <p>S1: Teacher to keep us interested while we learn. Thanks to these strategies, we can learn and understand, and to learn more about the language.</p> <p>S12: Because I understand and I am interested.</p> <p>S13: Because she has a lot of attitude to teach the class and to motivate students to learn. In a short time, we have learned a lot and [our] interest is notable.</p> <p>S14: Today, I understood much better, she explained well, and I was totally</p>	<p>Student 1</p> <p>es importante que no solo nos enseñen gramática, yo creo que desde 5to estamos viendo los mismos temas y realmente solo hasta este momento con usted pudimos usar un poco de lo que hemos aprendido para hacer cosa más divertidas, como hablar aunque no mucho en ingles, pero si se trata uno de esforzar más para dar las opiniones, porque uno sabe que usted le ayuda a uno</p> <p>Student 2</p> <p>las clases fueron muy interesantes gracias a que con estos trabajos y con los diálogos y con lo que nos hablabas en ingles asi, podiamos cogerlo mas facil, y esto hacia que la clases fueran muy interesantes, (...) al principio yo no queria participar</p>	<p>Students interest</p> <p>Students language progest</p> <p>Students' interest and participation increase when they understand what they should do, and when they know the topic.</p> <p>Students' interest is related to the teacher's attitude.</p> <p>Teamwork helps students to enhance their English speaking and listening process.</p> <p>Students are not accustomed to doing questions, or answering when they need express their own words</p>