Pedagogies innovations for Sustainable development: educational intervention based on the natural and cultural heritage topics in the English language class.

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Abstract. This article aims to contribute to the innovations of pedagogies for sustainable development since English language class. This research adscript to the postmodern paradigm and the mixed approach of the socio-educational research. The research team designed an educational intervention that combines topics related to natural and cultural Ecuadorian heritage with flipped classrooms and Content and Language Integrated Learning methodologies. The participants are 23 people; 9 instructors and 14 students between 12 and 48 years old. The research instruments were: the Likert scale questionnaire, created by the University of San Pedro in Peru, to assess students' motivations for practicing the English language; a knowledge rubric to evaluate students' listening skills, and focus groups on collecting participants' opinions about the educational intervention introduced in this research process. The results show significant changes in the student's motivation for practicing the English language but not in listening skills. It concluded that there were no correlations between the factors students' motivation for practicing the English language and listening skills when the educational intervention uses natural and cultural topics.

1. Introduction

At the beginning of the 21st century, the educational process in Ecuador had an integration function to provide educational opportunities for many people as possible. According to Espinoza (2016), the quality of education is currently a relevant issue in Ecuador. All these changes have caused the institutions that enter this education segment to review their processes, procedures, and evaluations and plan their restructuring based on the new rules imposed by education (Pacheco & Juárez, 2020). However, the reality of the English field in Ecuador is not as good as expected.

The Ecuadorian English as a Foreign Language curriculum presents a rationale and framework for learning English while acknowledging authentic, culturally relevant production and practices that facilitate the educational inclusion of learners regardless of their L1. Nevertheless, a study carried out by Education First (EF) in 2021 showed that Ecuador is ranked 18 out of 20 among other Latin American countries in English Proficiency English (EPI) (EF, 2021).

It is a fact that there exist several factors that can impede EFL learning, and one of them is the unmotivated student (Sevy-Biloon et al., 2020). A student has the motivation to do better than one's enthusiasm for learning activities. Thus, Wang & Littlewood (2021) stated in their study that learning motivation is a person's motivation to achieve expected learning goals. Virtual education modality remarked that when students are not motivated in class, they do not learn.

In a study by Dung (2020), students complained about the long-hour online classes, which caused tiredness, boredom, and concentration loss.

It showed that motivating students to learn a foreign language takes work. Most of the time, students arrive late, do not do assignments, ignore teacher explanations, and are less active; hence, to help to increase students' motivation, teachers need to make a learning innovation (Syaparuddin & Elihami, 2020).

This article followed the work of Vinces (2017), which assessed the relationship between students' motivation and academic performance. Thus, the study assessed the variable English as a Foreign Language subject and related to improving listening skills in secondary education students in Ecuador.

Something that can help to improve teaching EFL is to develop their listening skills, as there is sufficient evidence that the acquisition of listening skills leads to the acquisition of other language skills, i.e., speaking, reading, and writing (Wiwoho, 2022). Consequently, the research begins with a literature review of the terms Motivation for learning, Active Learning, and Listening Skills in EFL students. The research questions that guide this study are:

1) How can teachers motivate students to learn English as a Foreign Language?
2) What are the students' perceptions about the introduction of topics related to natural and cultural heritage in English classes?

3) What are the students changes in the listening skills before and after the educational intervention using topics related to natural and cultural heritage?

4) What is the relationship between students' listening skills and motivations for practicing English language with topics of the natural and cultural heritage?

The hypothesis to evaluate in this research are:

Ho₁: Changes in students' motivation for practicing English language using topics of the natural and cultural heritage are not significant.

Ho₂: Changes in students' listening skills when practicing English language using topics of the natural and cultural heritage are not significant.

This article aims to contribute to the innovations of pedagogies for sustainable development since English language class.

2.   Literature review

The main concepts that facilitate the understanding of this study are presented below.

2.1.   *Motivation for teaching and learning.*

There is not a consensus on the definition of motivation. Therefore, a highly motivated student with little aptitude for a certain task may, at any given time, perform better than one with better aptitude, but without motivation (Quiroga, 2016, p.9). It means that without motivation, there is no effort for learners to do something proficiently (Al-Munawwarah et al., 2018, p.107). Besides, scholars refer to motivation as a generic term encompassing many possible concepts but, the term motivation is accepted in most fields of learning as an essential aspect to reach success (Ulfa & Bania, 2019, p.3). However, the complexity of motivation includes components, such as "the individual's drive, need for achievement and success, curiosity, and desire for stimulation and new experience" (Rahardjo & Pertiwi, 2020, p. 53).

Buzdar (2017) states that "researchers and psychologists have found three types of motivation comprising intrinsic motivation, extrinsic motivation, and amotivation" (p.74). Thus, "Intrinsic motivation is the expression of behavior that is pursued purely for the pleasure and satisfaction that comes from doing it" (Zaccone & Pedrini, 2019, p.1382). Therefore, "Intrinsic motivation involves people and or students participating freely in activities that they find interesting, that provide novelty, fun, and an appropriate challenge" (Fernández et al., 2020, p.2).

On the other hand, the extrinsic rewards using grades, provide values even for intrinsically motivated students. Thus, they influence students' learning process. In addition, Chiew Fen & Poh Kiat (2015) affirm that learners extrinsically motivated learn something expecting rewards such as grades or praise that are not intrinsically linked to the learning itself. Extrinsic motivation refers to rewards that come from an outside source, including emotional or pragmatic reasons, and increases the likelihood of repetition such as being praised or admired by other people (Khasanah et al., 2022). Consequently, extrinsic motivation entails instrumental or external behaviors.

In addition, Suk Lee (2015) states that the term amotivation, also known as avolition, is a psychological condition understood as a reduction in the motivation to initiate or persist in goal-directed behaviour. According to Banerjee (2021) the term Demotivation is focused on external circumstances that discourage students to take action, whereas amotivation is mostly related to the inability to achieve the desired outcome.

To Engin (2020) motivation for teaching is another factor that influences the student motivation because when teachers feel competent about themselves and have a high level

of motivation towards their mission, they will care about their students more and will be more enthusiastic to make the maximum effort for teaching them.

2.2. *Linguistic and Listening Skills in EFL students*

In this modern life, English language has become an essential signature in global education, especially for the young learners. Even though English language is not the only most spoken language worldwide. Over the past two decades, English language has been increasingly used as the primary language of instruction in several higher education programs around the world (Aizawa & Rose, 2020).

Through technology, the students can benefit from improving their English skills because technology enables them to learn, communicate, and even increase their productivity. Authors such as Dumilah & Santoso (2022); Jobirovich (2021) affirm that digital technologies contribute to the formation of knowledge, skills, qualifications, and compensation in students and provide relief to the work activities of the teacher. One of the skills of English that is important is listening. English listening skills can help the youth and students build relationships, support their careers, ensure understanding, and resolve any conflicts (Lackner, 2021). Technology has become an integral part of human life, and it has made inroads in the sphere of education. Digital technology is essentially reshaping the nature of learning in the classroom (Singh, 2021).

Furthermore, in EFL learning, teachers implement podcasts as a learning media, especially for developing listening skills. Even, Ahmed (2016) argues that podcasts help students to understand and develop content in language teaching. On the other hand, it is gamification which offers very diverse usages. Thus, educational researchers often fail to recognize that the different elements included in games are for working in the class. Games can lead to different learner offerings, diverse types of social interactions, and learning arrangements (Sailer et al.,2017).

Listening is practiced for the purposes of pleasure, persuasion, perception, and comprehension. Hayrapetyan (2016) states that listening is a skill that enables people to demonstrate their existence personally and socially, to transfer the world of the thought and to make sense of human existence. In addition, listening is a central of learning because hearing a sound process is a skill that the students achieve an effective communication and great academic achievement among learners (Mohamed, 2018). Besides, there are several media that a teacher can use in the foreign language learning process, especially for listening skills. For instance, a movie, musical videos, or podcast. Some media to improve student's listening skill such as audio, visual, and audio-visual. However, many students and teachers do not pay enough attention or use those resources frequently (Rensi, 2019). In addition, technology as media has a role to be not replaced the traditional education system that involves teachers, schools, and parents, but it supports teaching to be easier in variety tools (Retnawati, 2019).

2.3. *Conceptualization of active learning and flipped classroom.*

To Carr (2015, p.16) active learning "means not only working on projects, giving presentations, asking questions, or participating in discussions with other students in the classroom, but also engaging, collaborating and engaging with other students outside the

classroom as part of a community curriculum Together". Furthermore, Alves (2015) states:

Active Learning isn't just a buzzword: it's a technology that's been around for a long time in education. It makes students more and more responsible for their own learning, and with the right technology, students can advance their studies and learn a variety of other skills in academic and professional settings that cannot be achieved by listening to lectures alone (p. 4).

Learners execute academic activities outside of the classroom such as assignments, discussions panels, and tutoring peers. Then, Active Learning requires viewing the learning process as a constructive process that brings individuals from all over the world together. Therefore, "active learning is more focused on developing students' skills, imparting information, and asking students to do things that require higher-order thinking-reading, discussing, writing. They also tend to emphasize students' exploration of their own attitudes and values." (Brame, 2016, p. 14).

Advocates of foreign language argue that the success of the model is due to its foundations in active learning pedagogy (Adams & Lenton, 2017). For instance, the difference in performance between flipped and traditional classrooms disappears when both use active-learning techniques. One method to achieve active learning is flipped classroom. Here, students are expected to contribute to the search for their own learning outside the classroom, this method is even more conducive in blended or mixed classes (Hwang & Lai, 2017). They add that an effective way to reduce the patterns about teacher-centered learning modes is the Flipped Classroom. It also can improve students' participation in English language class.

The Flipped Classroom consists of sending lectures for students to review outside of class, and dedicating classroom time to generate different activities that make learning meaningful. "We examine both out-of-class activities (e.g., video lectures) and in-class activities for example, quizzes, and student discussions" (DeLozier & Rhodes, 2017, p. 51).

Robertson (2018) states that over the past several decades, multiple forms of active learning have been proposed to increase students' engagement and deepen their understanding. That is why active learning is seen as an educational process where students become vigorously engaged in assimilating the material being explored, rather than passively absorbing that taught by others (Ryan, 2021).

Among the previous studies reviewed in this research appears the work of Vinces (2017) which studied the university students' motivations for learning. Thus, 100% of their informants were intrinsically motivated, and 92.5% were extrinsically motivated. There was a positive and perfect correlation with a Pearson correlation coefficient of rxy = 1.0 between motivation and academic performance.

3.   Methodology

This research is adscript to the postmodern research paradigm. It followed a mixed approach of education to show the participants' teaching experiences and opinions about the educational intervention proposed as well as numerical assessment of students' motivations for practicing English language and listening skills. The research team focused on the analysis of participants' extrinsic motivation for developing the listening

skills when using topics concerning to the natural and cultural national heritage in the English language class.

1.1.Participants. The group of participants is heterogeneous. They are 23 (61%) participants. 14 are students and 9 (39%) instructors with ages between 14 and 48-year-old. The 57% of the participants has residence in canton Manta and 43% has residence in canton El Carmen in the province of Manabí-Ecuador. See table 1.

Table 1 the participants

Location	Instructors		Students		Total
	Female	**Male**	**Female**	**Male**	
Manta	1	1	7	4	13
El Carmen	5	2	2	1	10
Total	6	3	9	5	23

Source: Research project 2022-2021.

3.2. Instruments. The instruments used in this research are:

3.2.1. Survey format. It used the Intrinsic motivation scales developed by the University of San Pedro in Peru. This instrument has the purpose to assess the participants' levels of extrinsic motivation. The instrument was examined by a panel of professors affiliated with the Universidad Laica Eloy Alfaro de Manabí in Ecuador. The instruments consist of 39 questions that consider 2 categories. The instrument was used in Pre-test and Post-test. This questionnaire was conducted through Google forms and answered by the participants of this project.

3.2.2. Structure interview guide. The researcher team designed the instrument having the purpose to collect information about the most frequently pedagogical strategies used by the EFL teachers to encourage students and generate extrinsic motivation. The instruments aborded 3 categories and 5 questions. The instrument was examined by a panel of professionals in the fields of education, EFL instruction and Psychology. They were affiliated to the Universidad Laica Eloy Alfaro de Manabí in Ecuador. After completed the corrections suggested by the professionals' panel, the instrument was conducted with an 18 years-experience EFL teacher with residence in canton Manta for 45 minutes.

3.2.3. Focus group guide. The instrument purpose is to collect information about the academic processes held in EFL classes in the province of Manabí, Ecuador. Participants also answered questions related to teaching the English language at public schools and college located in Ecuador, and informants' motivations to learn the EFL. The instrument was examined by a panel of professors from the College of Educations at the Universidad Laica Eloy Alfaro de Manabí. The instrument consisted of 10 open questions. The experts panel recommended to reduce the number of questions from 10 to 6. After completed the corrections suggested by the professionals' panel, the instrument was conducted with an 18 years-experience EFL teacher with residence in the canton Manta for 45 minutes.

3.2.4. Cambridge rubric for evaluation of students' listening skills. The rubric purpose is to assess students listening skills level. It evaluates the speed, intonation, pronunciation and vocabulary used to answer the questions. The test takes approximately 15 minutes. It is based on the dialogue between students and evaluator. The rubric was used in the pre-test and the post-test.

3.3. Procedures. The research executed the following stages.

3.3.1. Stage 1. Selection of instruments. Researcher team selected a Likert scale questionnaire to determine the participants extrinsic motivation level. In addition, researcher team designed the open interview guide. Both instruments were examined by experts' panel.

3.3.2. Stage 2. In this stage, the participants were selected. Children and adolescents between 12 and 17 years old who reside both in the city of Manta and in the locality "La Bramadora" were chosen.

3.3.3. Stage 3. The interview was carried out with a teacher in English with 18 years of experience who teaches in local private schools and national college. Researcher team executed the Likert scale questionnaire in pre-test to determine students' motivation for learning EFL at the beginning of the research.

3.3.4. Stage 4. The first execution of a class was carried out, performing the students' listening skills pre-test. Besides, getting information to design the educational intervention with topics concerning natural and cultural heritage. The research team determined the topics, created the lesson plans using CLIL and gamification methodologies.

3.3.5. Stage 5. The research team executed the Likert scale questionnaire in posttest to determine participants' extrinsic motivation at the end of the process.

3.3.6. Stage 6. The focus group took place with 4 of the participants using the application Zoom. Analysis of the information collected.

3.3.7. Stage 7. Statistics analysis and hypothesis evaluation using the SPSS.v23. It consisted in the calculation of *Kolmogorov-Smirnov test, T-student,* and the *Pearson Correlation coefficient* (r).

4.   Results

The presentation of the results follows the research questions that appear in the section introduction.

In answer to question 1: **How can teachers motivate students to learn English as a Foreign Language?**

The Table 2 shows the categorial analysis of an English language teacher's interview referring to the strategies used to motivate students for practice EFL. The categorial tree used in this research is:

Category 1. Use of information and communications technology in the EFL class. – According to Cabero y Martinez (2019), information and communications technology are

every kind of informatics program, online application, or device used to improve communication between people.

Sub-categories are higher, medium, and low-efficiency levels.

Category 2. Use of extrinsic motivation for improving English language practice. – It refers to every reward from an external source to increase learners' participation in class. It is a likelihood of repetition, such as being praised or admired by others (Khasanah et al., 2022).

Sub-categories are higher, medium, and low frequency of usage.

Category 3. Use of intrinsic motivation for improving English language practice. – It is learners' expression of behavior that is pursued purely for the pleasure and satisfaction of doing it (Zaccone & Pedrini, 2019).

Sub-categories are higher, medium, and low frequency of usage.

Table 2 teaching strategies used to motivate students for practice English language

Categories	Evidences	Sub-categories
1. Use of information and communication technology in the EFL class	R.P_ 0:07:23: *"For example, Word, making PowerPoint (presentations), which is what is most used in class, is essential for me."*	Medium efficiency level.
	R.P_ 0:11:26: *"I have used a lot of projections in my class to introduce vocabulary and stimulate the class participation".*	Medium efficiency level.
	R.P_ 0:11:32: *"YouTube helps me a lot to improve my practice of listening in the EFL class."*	High efficiency level.
	R.P_ 0:11:32: *"I promote the interaction among learners doing Facebook live. It demands me extra time on the planning and execution, but it is very effective to motivate students to practice English language".*	High efficiency level.
	R.P_ 0:17:00: *"I have used Google Drive a lot, which helps a lot in writing practice."*	Medium efficiency level.

Use of extrinsic motivation for improving English language practice.	R.P_ 0:09:37 *"Extrinsic motivation is essential to promote local identity."*	Low frequency.
	R.P_ 0:015:00 *"I consider that in our culture, Ecuadorian people always expect to receive something when carrying out an event."*	Medium frequency
	R.P_ 0:018:00 *"Students hope to receive positive points in their school marks when they do a task, even if it is a word of motivation: You did a good job! you can give a sticker or draw a happy face on it as homework."*	High frequency
	R.P_0:26:00 *"There are students that practice listening in English because they have to do it, but not because it satisfies them."*	Medium frequency.
	R.P_0:26:00 *"I am sure my students in, a large percentage do work hard in the English class because they have to comply with every task, but not because they are interested in learning."*	Medium frequency.
Use of intrinsic motivation for improving English language practice.	R.P_ 0:09:00 *"Students are not interested in learning English because they think they never use that language in Ecuador."*	Low frequency.
	R.P_ 0:12:00 *"I think kids like to practice English language singing songs. They read lyrics.*	Medium frequecy.
	R.P_ 0:016:00 *"Most of students are curios to learn new vocabulary in English.*	High frequency.
	R.P_ 0:016:00 *"Most of EFL classes do not include contains related to the subject Social Studies or Science classes in English language.*	Medium frequency.

Source: Interview to EFL teachers.

Regarding question 2: **What are the students' perceptions about the introduction of topics related to natural and cultural heritage in English classes?**

The table 3 shows the students' responses during a focus group, which aimed to collect their opinions regarding introducing the topic of national natural heritage in EFL classes.

Category 1. Topics presented in the educational intervention. – It refers to the students' preferences concerning to the topics presented in the educational intervention.

Sub-categories: Animal, idioms, local festivities, myths and legends, typical food, vegetation,

Category 2. Grammar topics aborded in the educational intervention using the national natural and cultural heritage. – It refers to the grammar topic students remember from the educational intervention.

Subcategories: adjectives, like-dislike, regular e irregular verbs, there is there are, vocabulary.

Category 3. Students' acceptance of the educational intervention using the national natural and cultural heritage. - It refers to the students' acceptance of the educational intervention using national natural and cultural heritage.

Sub-categories: High, medium, low acceptance.

Table 4 students' perceptions about the educational intervention using national heritage in EFL class

Evidence		Sub-categories
Category 1: Topics presented in the educational intervention		
1.1. Participant V: *"My favorite topic was the typical foods of Ecuador, because there I could say the food that I do not like, the one that I do like and the one that I love and I learned how to say those expressions in English."*	Intrinsic motivation	Typical food
1.2. Participant N: *"When we talk about the horses, the Rodeo Montuvio and the Paja Toquilla hat."* *"It was my favorite subject because showed pictures of horses. I like animals and I enjoyed so much the information about the horses."*	Intrinsic motivation	Local festivities Animal
1.3. Participant A: *"Well, on one occasion teacher explained about some words, for example: instead of saying "I'm fine" they use the expression "I am pretty well" "I am alright". However, I liked to learn idioms. For example: "So far so Good" "I am fine. They congratulated us when we repeat those words with the correct pronunciation."*	Extrinsic motivation	Idioms
1.4. Participant M: *"My favorite topic was about the Goblin -myths and legends- because I wanted to know about goblins as they are and what they do. So, I found all those very interesting!"*	Intrinsic motivation	Myths and legends
Category 2: Grammar topics aborded in the educational intervention using the national natural and cultural heritage		
2.1. Participant V: *"I learned about adjectives. I recorded my voice about the dishes in English. I like and dislike."*	Intrinsic motivation. Extrinsic motivation.	Adjectives, Like - dislike There is-there are
2.2. Participant M: *"In the class we read about Galapagos Islands and Sangay Park. Teacher*		

projected pictures from those locations. She explained about -There is and There are- to explain about the animals living in those natural locations."	Intrinsic motivation.	Pronunciation Singular and plural.
2.3. Participant R: "I remember we learned about Galapagos islands. It is a region that I would like to visit. I didn't know the correct way to pronounce the word [Island]. I learned about singular and plural of some animals.	Extrinsic motivation.	Like - dislike
2.4. Participant N: "I learned about I like it, I don't like it, etc. Teacher showed us some videos of Ecuadorian typical food. It was very fun. I felt very hungry"		
Category: Students' acceptation of the educational intervention using the national natural and cultural heritage		
1. Participant M: "For me, the classes about national heritage were fun and beautiful. I loved those classes, because the teachers were kind. They were very active."	Extrinsic motivation.	High acceptance.
2. Participant N: "I liked it very much, because the classes helped me to improve my pronunciation." *"Some of the theme about heritage were a little boring for me. I already had learned before in other English classes."*	Intrinsic motivation. Extrinsic motivation.	High acceptance, Medium acceptance. High acceptance
3. Participant R: "I found the classes quite dynamic. For example, when we read a legend, it was entertaining for me, because I had never read that literature in English language. Teacher read for us the legend about Maria Angula."	Extrinsic motivation	High acceptance.
4. Participant V: "I found the classes very nice and fun because the teacher made games. Super good classes!"		

Source: participants of the focus groups Focus group.

In answer to the question 3**: What are the students changes in the listening skills before and after the educational intervention?**

The graphic 1 shows the changes in students' listening skills in pre-test and post-test the educational intervention using natural and cultural heritage.

The statistical analysis shows changes in the participants' listening skills. Thus, protest results showed a statistical mean of 3,60; a median of 4,00; and a mode of 4,00. Meanwhile, the post-test results showed a statistical mean of 7,25; a median of 8,00; and a mode of 10,00.
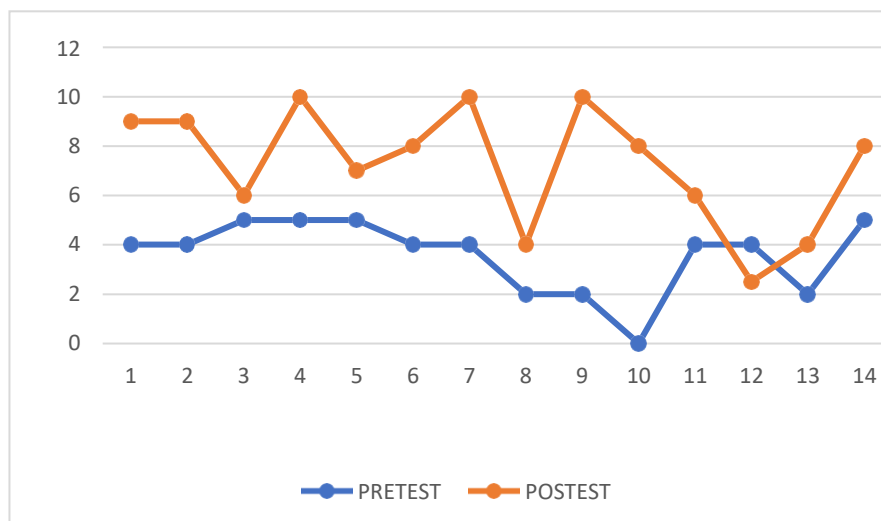
Graphic 1. Participants' listening skills pretest and posttest

Source: Research project (2020-2021)

Regarding question 4: **What is the relationship between students' listening skills and motivations for practicing English language with topics of the natural and cultural heritage?**

The table 3 shows the changes in students' listening skills in pre-test and post-test and motivation for practicing English language when use the educational intervention related to the natural and cultural heritage.

Table 3 participants listening skills changes and motivation for learning

No	Sex	Age	Pretest listening	Posttest listening	Motivation pretest	Motivation posttest
1	F	17	4	9	28	44
2	F	16	4	9	16	34
3	F	17	5	6	16	19
4	M	15	5	10	28	11
5	M	15	5	7	41	28
6	F	13	4	8	28	27
7	F	13	4	10	29	32
8	F	14	2	4	34	42
9	F	13	2	10	41	34
10	M	14	0	8	40	18
11	F	13	4	6	39	36
12	F	12	4	2.5	34	36
13	F	14	2	4	16	22
14	F	14	5	8	42	36

Source: Research project (2020-2021)

To determine the relationships between extrinsic motivation and performance in listening skills, the *Pearson Correlation Coefficient* (r) test has been used.

The data evaluation using the Pearson Correlation Coefficient (r) test shows (a) for variable pre-test motivation= 0,586 >= 0,050 therefore, there are no relationships between the variables studied; (b) for variable post-test motivation = 0,606 >= 0,050 therefore, there are no relationships between these variables either.

In consequence, there are no correlations between motivation for learning and performance in listening skills. It means that students can improve their listening skills even their language practice including or not topics related to the national natural and cultural heritage.

Hypothesis evaluation
The series of data evaluation using the *Kolmogorov-Smirnov test* shows for:

(a) Motivation for practice EFL using topics related to natural and cultural national heritage = 0,617 >= 0,050; in consequence, the series has a normal condition and it is possible to use the *T-student* to evaluate the hypothesis.

(b) Listening skills using topics related to natural and cultural national heritage = 0,53 >= 0,050; in consequence, the series has a normal condition and it is possible to use the *T-student* to evaluate the hypothesis.

a. Changes in students' motivation for practicing English language using topics related to natural and cultural heritage

Ho1: Changes in students' motivation for practicing English language using topics of the natural and cultural heritage are not significant.

Ha1: Changes in participants' motivation for practicing English language using topics of the natural and cultural heritage are significant.

The results of the *T student* index shows that the *p-value is* 0,768 > 0,050. Then, the null hypothesis is rejected. In consequence, the alternative hypothesis is accepted. This means that changes in the participants' extrinsic motivation for learning when using topics related to the national natural and cultural heritage are significant.

a. Changes in students' listening skills when practicing English language using topics related to natural and cultural heritage

Ho2: Changes in students' listening skills when practicing English language using topics of the natural and cultural heritage are not significant.

Ha2: Changes in students' listening skills when practicing English language using topics of the natural and cultural heritage are significant.

The results of the *T student* index shows that the *p-value is* 0,002 > 0,050; Then the null hypothesis is accepted. It means that changes in the participants' listening skills changes when using topics related to the natural and cultural national heritage are not significant.

Discussion

During the sample of results, it was possible to determine that the majority of students in Ecuador need extrinsic motivation to be successful in English classes, as mentioned by the English teacher in the interview "*extrinsic motivation is essential because in our culture, we, Ecuadorians are always expecting something when carrying out an event, so we are always waiting for what we receive, even if it is a word of motivation*" in addition, based on the literature review this is as well consistent with Khasanah et al. (2022) who pointed out that extrinsic motivation refers to rewards that come from an outside source, including emotional or pragmatic reasons, and increases the likelihood of repetition such as being praised or admired by other people. Furthermore, the results of extrinsic motivation reported in this paper allow the research team to coherence with the previous research paper made by Vinces (2019) thus in this study it was shown that 95.50% of the students were extrinsically motivated, meanwhile in the review study it was a 98,50% hence there is a difference of 3%. It is important to consider that the number of participants in the study carried out by the authors of this article is less than the number used by Vinces, therefore this margin of difference may exist.

Speaking of the listening skills, results showed that during the post-test stage there was an increase of 101,39% of the statistical mean in the grades of students. This coincides with Ulfa and Bania (2019) who stated that motivation is an accepted feature of reaching achievements in most learning fields, nonetheless, in this study, Pearson Correlation Coefficient (r) test declared that there are no correlations between learners' extrinsic motivation using topics about the national natural and cultural heritage and their listening skills.

Regarding the results obtained in the empirical part, it can be said that most of the students showed progress in their learning during each session that was given to them. The results obtained in the execution of the project showed that the innovation in the development of English classes through the flipped classroom methodology was of great help in the learning progress of the students. This is consistent with Hwang & Lai (2017) who claimed that Flipped Classroom has changed the traditional learning patterns of teacher-centered learning modes and has also improved students' learning achievement and increased the interaction between the learner and teacher.

Finally, the results obtained showed that to motivate students in classes, something that can be done is to carry out activities with which they feel comfortable or familiar and teach subjects that attract their attention, including what is expected to be taught in class. An unexpected result was that the percentage of low extrinsic motivation remained almost the same, despite the efforts and the methodology focused on increasing it, the percentage even rose by 0.15%. This may be due to the fact that there is still a lack of interest in being educated in a second language, in Ecuador English is not used in daily life, it does not go beyond schools and colleges, and there may be adolescents who see it as useless and for more than one If the class is dynamic, has a student-centered approach, or even offers incentives, they are not going to be engaging or engaging enough to motivate a student who probably needs something more intrinsic rather than extrinsic.

The statistical analysis shows changes in the participants' listening skills. Thus, protest results showed a statistical mean of 3,60; a median of 4,00; and a mode of 4,00.

Meanwhile, the post-test results showed a statistical mean of 7,25; a median of 8,00; and a mode of 10,00.

The pre-test showed that 43,47% of participants reported a high extrinsic motivation level; 52,18 % reported a medium extrinsic motivation level, and 4,35% reported a low extrinsic motivation level. Meanwhile, the post-test report showed that 52,10% of participants reported a high level of extrinsic motivation. 43,40% reported a medium level of motivation, and 4,50% reported low level of motivation

Concerning to the students' opinions about educational intervention contributions for their future life, the authors present the following voices:

> Participant M: *I think it can help me because I can tell to foreigners about my country heritage.*

> Participant V: *The practice is very useful because I learned more about typical foods, handicrafts, and things like that. I have not visited any of the places they mentioned, but I would like to visit and through these classes I knew about Galapagos Island a little bit.*

> Participant N: *If one day I want to travel to other country, I will know the topics people would like to know about my country.*

> Participant R: *It is important because English is the Universal language, and it is necessary in case we want to travel or receive visits I can explain about my culture.*

Students also presented recommendation for improving future interventions

> Participant N: *I would like to know about the typical foods of other regions of Ecuador. Of course. I also would like to know about the culture from other countries such as France and the United States.*

> Participant M: *I would like to continue with the same theme Natural National Parks. I am also interested in the Korea, Japan and China cultures.*

> Participant V: *I like the theme and I would like to know much more about Ecuador since I could travel to another country and explain about the things that are here in my country.*

> Participant A: *I like the subject very much, but I would like to learn other things such as emotions, jobs and more vocabulary to express my ideas more naturally.*

The lesson learned is that in order to generate motivation in students and therefore make them interested in learning EFL by consulting their favourite topics, perhaps what is trending currently in fashion, movies, series, music, games, and their taste in general. It is of great importance to do an analysis of the students interests and preferences before planning the classes, in this way they could be interested in learning. On the other hand, mental health plays a fundamental role, the students in a focus group stated that they felt comfortable and did not have pressure or anxiety because they knew that they were not being scored, for this they paid more attention to classes and learned, additionally they

stated that "teachers" who taught the classes were always in a good mood and were not "authoritarian" so they had greater confidence in turning on the microphone and participating in the class. CLIL approach contributed to the project as part of the training process since the research team used topics of natural Ecuadorian heritage, so students did activities and had formative and summative assessments according to this topic.

1. Conclusion

Through this research work, it was concluded that extrinsic motivation can be increased in students through the flipped Classroom and CLIL methodologies using Natural Heritage topics, however, there is no correlation between extrinsic motivation and the enhancement of listening skills. This can be attributed to the culture of the students in Ecuador who are always looking for something in return and more than anything in education, most of them look for a grade or do it because it is their duty, but not because the desire to learn and thus improve language skills in the foreign language.

The project could be biased by different subjective variables such as planning, themes, activities, evaluation methodologies, etc. For this reason, other researchers are invited to do more in-depth research regarding the role of the flipped classroom and CLIL and whether it can really increase the extrinsic motivation of students and enhance their language skills in learning as foreign language in Ecuador.

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Article accepted
Participants

- Technium Science (admin)
- JHONNY VILLAFUERTE (jhonnyvillafuerte)

Ariana Peralta Cedeño, Karolyn Macías Villalva, Jhonny Villafuerte-Holguín:

We have reached a decision regarding your submission to Technium: Romanian Journal of Applied Sciences and Technology, "Pedagogies innovations for Sustainable development: educational intervention based on the natural and cultural heritage topics in the English language class.".

Our decision is to: Accept Submission

Regards,

Editor

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Reviews inform:

General conditions

1: No good

2: It should improve

3: Acceptable

4: Good

5: Very Good.

Reviewer A:

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Yes/ No: YES.

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- the topic of the article is appropriate to TBM [Y/N] ?

Y

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[Reviewer comments:]

Reviewer A: Recommendation: Accept submission as is.

Reviewer B:

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