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MAESTRÍA EN LINGÜÍSTICA APLICADA A LA ENSEÑANZA DEL INGLES COMO LENGUA EXTRANJERA

The Effect of Flipped Learning on Grammar Acquisition in an EFL Classroom, University of Cuenca.

Trabajo de titulación previo a la obtención del Título de Magister en Lingüística Aplicada a la Enseñanza del Inglés como Lengua Extranjera

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Resumen

Estudios previos sobre el Aprendizaje Invertido se han centrado en las destrezas principales de la lengua, pero pocos se han orientado hacia la gramática. Los estudiantes universitarios deben aprender varios temas gramaticales en un semestre, y el Aprendizaje Invertido fue seleccionado como un modelo que permite optimizar las lecciones tradicionales. En casa, los estudiantes aprendieron contenidos a través de screencasts, mientras que dentro del aula se involucraron en actividades relacionadas con el Aprendizaje Activo. En la investigación se emplearon métodos mixtos (cuantitativo-cualitativo) con 25 estudiantes de inglés como lengua extranjera en una universidad pública de Cuenca, Ecuador. Se administró una prueba previa y una posterior a los participantes, y los puntajes revelaron un aumento significativo de 11,24 puntos (p <0,05) en el rendimiento gramatical general. Sin embargo, después de haber analizado los puntajes por tema, hubo cambios positivos en 9 estructuras gramaticales de 12. Para explorar las opiniones de los estudiantes sobre la metodología, se emplearon cuestionarios y diarios; estos revelaron en su mayoría una percepción positiva hacia el método. Además, se realizó un análisis de correlación entre los puntajes finales y las percepciones de los estudiantes. Los resultados mostraron que sus percepciones sobre el Aprendizaje Invertido no estaban relacionadas con sus puntajes en la prueba posterior. Después de discutir los resultados de esta investigación junto con estudios relacionados, se concluye que el Aprendizaje Invertido tiene el potencial para mejorar el rendimiento gramatical si la instrucción se imparte considerando las probables limitaciones en el diseño y contexto.

Palabras clave:

APRENDIZAJE INVERTIDO, GRAMÁTICA EXPLÍCITA, SCREENCASTS

Abstract

Previous studies on Flipped learning have focused on main language skills, but not many have been directed towards grammar acquisition. University students are required to learn several grammar topics in one semester, and Flipped Learning was selected as a model to help optimize the traditional lessons. At home, students learned content through screencasts, whereas inside the classroom they got involved in Active Learning activities. This study consisted of a mixed methods design (quantitative-qualitative) and was carried out with 25 EFL students at a public university of Cuenca, Ecuador. A pre- and a post-test were administered to the participants, and the scores unveiled a significant increase of 11.24 points (p <0.05) in grammar performance. Nevertheless, after having analyzed the scores by grammar topic, there were positive changes in 9 grammatical structures out of 12. To explore the students' insights on Flipped Learning, a questionnaire and journals were employed; they revealed that most of the students had positive perceptions towards the approach. Additionally, a correlation analysis was done between the students' final scores and their perceptions. The results showed that the perceptions of Flipped Learning were not related to their post-test scores. After discussing all the outcomes in both this research and related studies, it is concluded that Flipped Learning has the potential to improve grammar performance if the instruction is delivered taking into consideration probable limitations in the research design and context.

Key words:
FLIPPED LEARNING, EXPLICIT GRAMMAR, SCREENCASTS

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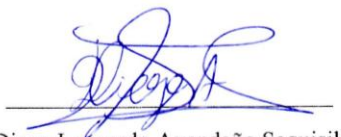

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Dedication:

I dedicate this present thesis to my entire family, who are the best family I could wish for.

Introduction

Flipped Learning is an approach that has become popular in recent years. There have been many studies of its application in the field of education, and some of the research has examined Second Language Acquisition (SLA). As a result, these studies have explored how individuals learn a language other than their mother tongue.

Around the world, English has been chosen as the lingua franca; therefore, it has turned into a language spoken worldwide. Hence, many people find it necessary to learn English as a Foreign Language (EFL); that is to say, they learn English in a country where it is not the official language.

In Ecuador, most educational institutions have mandatory English courses, and that is the case at the University of Cuenca. In this university, students must pass 3 levels of English and achieve an A2 level as a requirement to get a degree. Problems arise because of the students' difficulties understanding rules and structures and the limitations in their context.

Flipped Learning was chosen as a model that might improve the way students learn English. Through this approach the traditional presentation of a lesson is moved outside the classroom, leaving more time for practice and application during class. The purpose of the current research study was to examine to what extent can Flipped Learning improve grammar acquisition with EFL students at university level.

This research study is divided into six chapters:

In Chapter I, the antecedents, the problem and the justification of the study are described. Then, the objectives and research questions are explained.

Chapter II contains the theoretical framework and the review of the literature. The theoretical framework will relate to the main theories that were a foundation for the study such as Constructivism, Socio-constructivism, Active Learning and Bloom's Taxonomy. The

literature review will refer to the previous studies done in the field, unveiling the gap that this current research will fill.

In Chapter III, the methodology employed in this study will be explained. Furthermore, this chapter will describe the elicitation tools and the data analysis process in detail.

Chapter IV contains the results obtained from the data elicitation tools. The major findings and outliers are carefully evaluated and interpreted. All the explanations are supported with their corresponding tables and figures.

In Chapter V a discussion will take place. This discussion will focus on the achievement of the specific objectives of the study. Also, the discussion will compare and contrast this study with previous literature in the field of Flipped Learning and grammar acquisition.

Chapter VI will provide the conclusions drawn from the discussion along with some recommendations on the methodology. In this chapter, suggestions for future research will also be pointed out.

Finally, all the relevant documents, forms and additional pieces of information will be included in the Appendix section.

Chapter I: The Scope of the Study

1.1. Antecedents

Flipped Learning has been a popular term of inquiry in the last five years (Lakmal & Phillip, 2014), and it is defined as "… an instructional model in which students explore course content through videos and presentations outside of class in preparation for application or enrichment activities during class time" (Hodges & Weber, 2015, p. 57). Consequently, technological tools are usually combined with Flipped Learning, and they encourage and engage students in the lesson (Bonilla & Espinoza, 2014).

There has not been much research about the Flipped Learning approach in connection with English language instruction (Egbert, Herman, & Lee, 2015). In fact, it is stated that research in the field of English as a Foreign Language (EFL) at the university level is scarce (Webb, Doman, & Pusey, 2014). However, some of the current available studies provide evidence that a Flipped Learning approach might be favorable to deliver English language instruction. The quantitative results obtained from these studies reveal that the Flipped Learning approach has enhanced the knowledge of English in learners. Similarly, the qualitative data indicate that students have revealed a positive attitude towards this approach (Chen Hsieh, Wen-Chi, & Marek, 2014; Leis, 2015; Webb, Doman, & Kerry, 2014).

1.2. Statement of the problem

Education First (EF) is an international company specialized in language training. Every year they rank countries according to their English skills. In 2016, Ecuador was in 47th place among 72 countries, and its English students were labeled as low proficient (EF Education First, 2016). In order to validate these results, the students' scores at the University of Cuenca were examined.

At the Language Institute of the University of Cuenca, the average scores of 30 groups were analyzed (see Appendix L). These scores were obtained from the last two

semesters prior to this research project. It was observed that students from the Credit Courses Level 1 had some limitations in their grades. The average score of the two previous semesters was 73.43/100. This fact might appear to be acceptable since the minimum grade to pass is 60/100 (Universidad de Cuenca, 2009). However, this average grade might be considered as unfavorable since it is just above the minimal score to pass a course. Another issue to point out is that most of the examined scores range from 70 to 79, and this interval is described as *good* according to the equivalence system (Universidad de Cuenca, 2013). It appears that former students at the Language Institute might have had some difficulties in the learning process which kept them from scoring higher than 80 (*very good*) or 90 (*excellent*).

After examining these records of the students' grades, the assumption is that the previous problem arises due to the lack of students' engagement in the lessons or the amount of language structures that they have to learn in one semester.

One factor that might have affected students' scores is their low level of engagement and motivation in the lessons. A matter of discussion is that some freshman students at the University of Cuenca are not motivated enough for achieving learning objectives (Chandi & Osorio, 2015). In addition, sometimes the workload of assignments, quizzes and the limited time to accomplish them make the students suffer from academic stress (Barzallo & Moscoso, 2015).

The other factor that might have affected students' scores is the amount of language structures that they need to learn in one semester. As it is reflected in the syllabus (Instituto Universitario de Lenguas, 2016), numerous grammatical contents need to be covered in 96 hours of in-class instruction, and this time might not be sufficient for students to learn a language due to the motivation and stress aspects aforementioned.

In an attempt to overcome the possible limitations stated previously, Flipped Learning was implemented in the English learning process. This approach was adopted as a source of

engagement since it promotes active learning and increases participation and interaction inside the classroom (Lakmal & Phillip, 2014). Moreover, Flipped Learning also increases motivation levels by employing technological resources. It is said that these days technology makes students feel more disposed to participate in the learning process (Bonilla & Espinoza, 2014). Furthermore, Flipped Learning helps optimize the instruction time since it focuses on the presentation of knowledge outside the classroom, leaving more time for practice and application inside of it (Ruffini, 2015; Lakmal & Phillip, 2014). In this manner, this approach might be beneficial for students by taking advantage of not only the time inside the classroom but also the time outside of it.

The present research was focused on English grammar instruction since many authors coincide that grammar is one of the key elements for an effective communication and proper language use (Larsen-Freeman, 2003; Beverly, 2007; Scrivener, 2013; Richards & Renandya, 2002). It was expected that the proposed methodology would foster grammar instruction, and, subsequently, the students' performance may increase.

In conclusion, former students' scores might have been affected by their low levels of motivation and engagement in the lessons. These constraints might have kept them from learning grammar structures and scoring higher. To ease the difficulties exposed above, Flipped Learning was chosen as an approach that might help improve students' learning environment and their opportunities to acquire and use English grammar.

1.3. Justification

During this study, Flipped Learning will be applied to teaching English as a Foreign Language (TEFL). The focus will be on grammar acquisition through an inductive method. After an in-depth examination of the theory behind Flipped Learning, three basic components were selected as dominant for the present study: Flipped Learning, screencasts, and grammar

instruction. The following paragraphs will elucidate the relevance of each of the components towards the research.

First, Flipped Learning was embraced because it promotes active participation and helps optimize time inside the classroom. Students need to be involved in the lesson to learn content, and Flipped Learning provides a student-centered classroom which guarantees interaction and engagement. In addition, Flipped Learning increases classroom time since the new content is delivered outside the classroom through multimedia resources; inside the classroom, a teacher can use time to strengthen language skills, focusing more on practice and application (Berrett, 2012; Lakmal & Phillip, 2014).

Second, screencasts were selected to present new knowledge because they are easy to elaborate and promote students' engagement using sound and pictures (Elaine, 2007). A screencast is "…a digital video and audio recording of what occurs on a presenter's computer screen, and it can be used to create sophisticated, information-rich multimedia presentations." (Ruffini, 2015, para. 4). Furthermore, there are previous studies which demonstrate the efficacy of screencasts as an educational tool to enhance learning and motivation in the field of education; these studies will be described in detail in the Literature Review section (Davis & McGrail, 2009; Morris & Chikwa, 2014).

Third, grammar instruction is pertinent since teachers and students have a hard time dealing with the rules and exceptions that it contains. In fact, it is stated that students need to acquire grammar knowledge because it is the key for appropriate language use (Jaeger, 2011; Scrivener,2013). It is important to mention that an inductive method to teach grammar was selected for this study since, as suggested by some authors, it facilitates the task of teaching adults complex rules without a guide by their side (Spada & Lightbown, 2008; Andrews, 2008).

Finally, university students were chosen as prospects for this study because most of them are adults and technology users. It is worth stressing that the participants were not selected at random, but rather, they were chosen because of their convenient availability and proximity to the researcher. The fact that the participants of the study are adults makes it easier to teach grammar in an inductive way since most adults prefer explicit explanations of rules (Richards & Renandya, 2002). Furthermore, students at university level are assiduous users of technology (Wood, 2010). In fact, all the classes at the Language Institute of the University of Cuenca are being taught supported by a virtual learning environment (VLE), which is called E-virtual. For these two reasons, university students are suitable participants for this study.

As a conclusion, Flipped Learning will be implemented with the use of screencasts in the process of delivering grammar instruction in an EFL classroom. Screencasts will be employed as a technological aid in this process while grammar instruction will be delivered through them. In the Ecuadorian context, there has not been much research on Flipped Learning approaches in a process of English grammar acquisition; therefore, there is a need to conduct research on the topic to determine the impact of a Flipped Learning approach on the acquisition of grammar with EFL students at university level.

1.4. Research Questions

To what extent is there an improvement in students' knowledge of English grammar through a Flipped Learning approach?

What are the EFL students' perceptions on Flipped Learning at university level?

1.5. Objectives

1.5.1. General objective

Determine the effect of Flipped Learning on grammar acquisition in an EFL classroom at university level.

1.5.2. Specific objectives

- Evaluate students' grammar learning experience through Flipped Learning.
- Analyze EFL students' perceptions on Flipped Learning at university level.
- Determine to what extent screencasts help students acquire grammar.

Chapter II: Theoretical Framework and Literature Review

2.1. Second Language Acquisition

Language is a powerful tool to convey ideas. Human beings employ a language to express not only what surrounds them but what is in their minds. Indeed, they use a language to communicate with others and with themselves. People not only verbalize their ideas in one language, but rather there is a vast amount of languages spoken in every corner of the planet. As a result, many individuals feel the necessity to study a second language besides their first one to interact with the world. How individuals learn a different language than their first is an issue studied in the field of Second Language Acquisition (SLA) (Ortega, 2014).

Around the world people are learning a second language thinking in a better career and future. Some people need to learn a second language to travel or study abroad. For others, learning a second language implies a better job prospect and salary. Furthermore, some people need to expand their cultural horizons by interacting with those who do not share the same native language. In the present world we live in, better opportunities will surround people who speak a second, third or fourth language (Cook, 2013).

2.1.1. Foreign Language Learning. In the field of SLA, many scholars make a distinction between second and foreign language learning. A brief explanation on the difference between these terms will be provided in the next two paragraphs based on Ellis (2015).

Second Language Learning takes place when a person grasps another language in the context where it is spoken widely by people, for instance, a person who learns English in the United States or the United Kingdom. People usually learn a second language by interacting and experiencing with it in every day real situations.

On the other hand, Foreign Language Learning refers to the situation in which a person studies another language outside the context where it is spoken. For example, in

Ecuador, many people learn English as a foreign language since it is not the official language in this country. Foreign language learning commonly takes place by interacting and experiencing with the language in a classroom setting with the aid of an instructor.

In the present time, English is learned as a second and foreign language worldwide. When people learn English as a second language (in the same context where the language is spoken by the majority), they are called English as a Second Language (ESL) students. Otherwise, when people learn English as a Foreign Language (in a different country where English is not the official language), they are known as English as a Foreign Language (EFL) students (Gries & Deshors, 2015).

EFL will be the term employed to designate students learning English as a Foreign Language in Ecuador.

2.1.1.1. English as a Foreign Language in Ecuador. Today, English is one of the most learned languages in Ecuador. In fact, in the recent years, the Ecuadorian government has been investing in education and prioritizing English language learning to the contribute to the students' development towards an international projection. In addition, according to a survey undertaken by the British Council, Ecuadorians have positive attitudes towards learning English since they reflect that by having a good command of this language, they will get better opportunities in terms of professional growth and success. As a result, in most Ecuadorian universities, English is a mandatory course in the curriculum (British Council, 2015).

During Chapter II, SLA will be used as a broad term that encompasses Learning other languages in general, (a second or foreign language). Although EFL will be employed to label how English learning is regarded in Ecuador, most of the ideas will be associated with SLA. In other words, SLA will be employed as an umbrella term from which EFL emerges.

2.1.2. Learning theories connected to SLA. There are numerous learning theories in the field of education which have been employed in SLA. However, Constructivism, Sociocultural Theory, Active Learning, and Bloom's Taxonomy were selected to guide this research project.

2.1.2.1. Constructivism. This learning theory is explained as a process in which students learn new information by constructing knowledge based on their own previous experiences. This theory was selected as a foundation since it promotes active engagement in students and enables them to acquire higher thinking skills (Koohang, Riley, & Smith, 2009). Concerning language teaching, Piaget, considered the father of the theory of constructivism, proposed five stages that teachers should be aware of to direct students towards learning; however, only the last stage will be considered for this research. The last stage is the formal operational stage, and it takes place after a person has gone through the adolescent years. When a person experiences the formal operational stage, it is said that they can understand the rules of a language. This is possible since their brains do not depend on concrete examples anymore. For this reason, teaching explicit grammar rules to higher education students is conceivable (Williams & Burden, 2006).

In brief, the following aspects of Constructivism are fundamental for teaching a language. First, Constructivism promotes active involvement of the students in the learning process. The students should build new knowledge based on prior experiences, and this is of great help when designing activities for a lesson. Second, Constructivism promotes understanding rather than memorization. Students are able to learn something when they establish connections and reflect on their previous experiences. Third, students' cognitive level should be analyzed before planning any activity. A teacher might create concrete or abstract activities according to the learners' conceptual level (Williams & Burden, 2006).

2.1.2.2. Sociocultural Theory. Derived from Constructivism, the Sociocultural Theory arises, and, here, the principal author is Lev Vygotsky. He claimed that language is a product of interaction with peers and the environment. His ideas have been fundamental in second language development research (Brown, 2007; Lightbown & Spada, 2013).

After observing the behavior of a group of children in the Soviet Union, Lev Vygotsky concluded that language is acquired by social interaction. He also proposed the concepts of Zone of Proximal Development (ZPD) and scaffolding which are related to the fact that children develop their cognitive and linguistics skills with the help of experienced adults. In fact, he states that a person cannot develop language in isolation, but rather the help of others is needed. Furthermore, he points out that language is very significant for the cognitive development of the individuals (Williams & Burden, 2006).

Another underlying idea provided by Vygotsky is that learning is a mediated process, and it is said that psychological and cognitive processes are mediated during our entire life. For instance, the expressions, gestures, or visual aids are some artifacts of mediation employed by others to help individuals to develop their cognition (Young-Scholten & Herschensohn, 2013).

As stated previously, Vygotsky suggests that a learner can reach a higher level of knowledge or performance with the aid of other individuals, like teachers or peers. He described a metaphorical place called the Zone of Proximal Development (ZPD). The ZPD is the distance between what the learner can do and what they might be capable of with the help of a more experienced person. Having the previous ideas in mind, inside the classroom, the teacher acts as a mediator who helps students move to a new advanced stage, uncovering their potential; this type of "help" is generally referred to as scaffolding (Lightbown & Spada, 2013).

Christison, Christian, Duff, and Spada (2015) define scaffolding as "… the interaction and collaboration that learners use within their zone of proximal development…" (p. 9). In the field of education, teachers are usually the experienced individuals who provide instructional support or scaffolding. They help students to attain their objectives and to move forward within their ZPD. Although , it is mentioned that qualified peers can also facilitate students' progress.

In the following section, the Active Learning theory will be presented as a way to help students construct their knowledge individually or with the help of others inside the classroom.

2.1.2.3. Active Learning. "Tell me, and I may forget. Teach me, and I may remember. Involve me, and I will learn" (Benjamin Franklin).

Active Learning is derived directly from the Constructivism principles, and the term was first used by Reginald William Revans in 1940. He thought that lessons should not involve traditional techniques like lecturing or passive listening, and he stated that students acquire new information when they are aware of their lack of knowledge and get involved actively in the learning process. That is why the previous quotation by Benjamin Franklin captures the essence of the Active Learning theory (Wojciech, 2013).

It is said that Active Learning "involves students in doing things and thinking about the things they are doing" (Bonwell & Eison, 1991, p. 19). This model of instruction promotes active participation of students opposed to the model in which they are passive learners pretending to listen to a lecture (Lumpkin, Achen, & Dodd, 2015).

Revans affirms that learning occurs mainly when the individuals solve a problem by asking questions, identifying solutions or devising strategies for action. For him, learning is not a process of memorization of content from different sources, but he claims that new information is acquired by the construction of knowledge and development of skills. In other

words, students learn by action, experience, and reflection, which can take place individually or in company of other peers (Gleason, Peeters, Resman-Targoff, Karr, McBane, Kelley, & Denetclaw, 2011; Wojciech, 2013).

Bonwell and Eison (1991) support that there is not an exact definition of what Active Learning is; however, they provide some characteristics that most authors agree with:

- Students should be engaged during the lesson, avoiding passive listening.
- Teachers should focus on skills development rather than understanding and memorization of content.
- Teachers should help students develop higher-order thinking skills (see Bloom's revised Taxonomy).
- Teachers should use specific techniques to get the students involved in the learning process (see Active Learning techniques).
- Students should reflect on their own learning experience.

Bonwell and Eison (1991) also declare that lectures are one of the most used techniques to deliver instruction because teachers feel comfortable and empowered with them. However, nowadays, faculty members at higher education levels are getting good teaching results after introducing Active Learning techniques inside the classroom.

2.1.2.3.1. Active Learning Techniques. In Active Learning, the techniques employed are directed towards increasing motivation and interaction among students, and, therefore, understanding will arise. Indeed, previous studies support the idea that Active Learning makes it possible that the students attain high-order thinking skills and boosts their level of motivation (Bonwell & Eison, 1991). Also, the classroom shifts from teacher-centered to student-centered, giving pupils the control over their learning process (Gleason, et al., 2011).

As stated before, Active Leaning opposes to a one-way teaching process, in which the instructor lectures the students while they are passive receptors of information. Active

Learning is a two-way teaching process in which students learn by engaging actively in the activities that are carefully planned by the teacher. Some common categories of activities are individual and group exercises, questions and answers, immediate feedback, critical thinking, share and pair, and collaborative learning (Park, Kang, Kim M., Yu, Kim H., & Hyun, 2013).

In the following list, some activities related to Active Learning will be presented. These were the activities used inside the classroom during the Flipped Learning implementation in this study (Bonwell & Eison, 1991; Weltman, 2007; Gleason, et al., 2011):

- Role plays: students are assigned a role to act it up in a particular context. By introducing roleplays in a lesson, it is expected that students get the experience and skills to respond in an unreal situation; then, once they have a real life experience, they will know how to cope with it.
- Students' presentations: students research a topic individually or in groups. They gather all the ideas and present them using slides, posters or handouts.
- Games: they involve students in competitive and engaging activities to foster learning in a friendly and exciting way. Some successful games are the ones based on television game shows, such as Jeopardy or Who Wants to be a Millionare.
- Audience Response Systems (ARS): they help teachers to measure student's understanding in an inmediate manner. The teacher presents a question on a screen, and the students send their answers by the means of the ARS. In this study, the ARSs employed were plickers and kahoot, two free web applications.
- Online supplementation: these are activities in virtual learning enviroments that help support what the learners do in class. Some examples of online activities are quizzes, forum discussions, or video-lectures.

- Questioning and disccussion: they help foster Active Learning in the classroom by allowing students to develop thinking skills and to help long-term retention of information. A good example is the activity “Think, pair, share”, in which the students are given a problem in the form of a question. They think of an answer for two minutes. Then , in pairs, they discuss their individual answers around 3 or 4 minutes. Finally, the pairs have to present their findings to the whole class or in small groups.
- Peer-teaching: students alternate between teacher and student roles to build their knowledge. Peer teaching can be applied in writing when students exchange their papers to edit each other’s composition.
- Collaborative learning: one of the advantages of collaborative learning is that, besides promoting learning, it also stimulates the development of social kills by direct interaction with others. Some common social skills are decision making, conflict management, and communication. This technique consists of having students gather in smalls groups to work out a task towards a common goal.

Besides, engaging students dynamically during lessons, Active Learning is a method that will allow students to acquire higher thinking skills (Giannakos, Krogstie, & Aalberg, 2016; Weltman, 2007), and this subject will be explained in the following section.

2.1.2.4. Bloom’s Revised Taxonomy. Regarding higher thinking skills, in 1950, Benjamin Bloom and his team created a scale to promote the development of cognitive skills known as Bloom’s Taxonomy. According to Ulum (2016), Bloom’s Taxonomy is one of the most used cognitive process models which attemps to explain the mental operations in the brain when acquiring knowledge.

It is proposed that a student should experience each level in the scale to reach a higher manner of thinking, and therefore learning. Figure 1 displays Bloom's revised Taxonomy, which will be used to guide this research. It is the traditional taxonomy but with two principal reforms. First, the category names were changed from nouns to verbs. Second, the category "create" was placed at the top instead of "evaluate" (Brame, 2016).

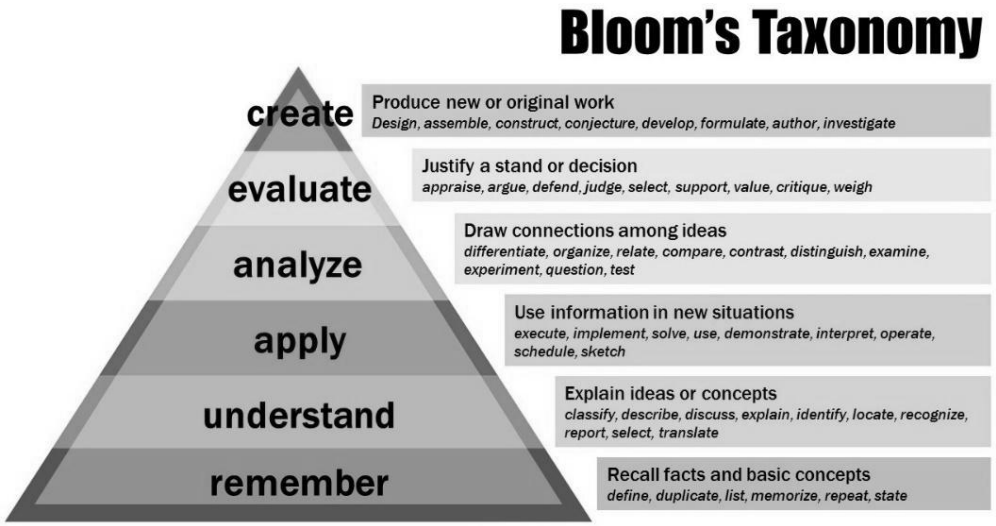

Figure 1. Bloom's Revised Taxonomy (Armstrong, 2016).

Next, each of the stages in the taxonomy will be explained briefly in terms of how the students develop cognitive skills from the base to the top of the pyramid. These ideas are provided by Zainuddin & Halili (2016).

- Remember: this stage occurs when the student receives the new knowledge and tries to decode and recall the most important ideas.
- Understand: this takes place when the student is able to explain and elaborate on the new concepts.
- Apply: the students make use of the new information to put it into practice. Sometimes this application process is carried out in a familiar situation for the student.

- Analyze: Students get knew ideas after a process of critical thinking. The students break the concepts into smaller parts, which are understood by establishing connections or relationships between them. For instance, students develop critical thinking skills when they engage in debates or simply exchange ideas with peers.
- Evaluate: Students assess how beneficial the new content is which was acquired in previous stages. They are able to justify their decisions or actions.
- Create: Once the students realize that the new knowledge is valid they use it to create something different and original.

During this study, it is sought that students acquire the two initial stages, "understand" and "remember", from home by watching a video. Whereas, in the classroom, they invest their time to attain the remaining four (apply, analyze, evaluate, create), which are said to be higher forms of thinking (Brame, 2016; Bergmann & Sams, 2014).

The benefits of using Bloom's Revised Taxonomy is that students can work on developing low-order thinking skills individually from home. For them, this task is easy since understanding and remembering can be accomplised successfully on their own. Then, in the classroom, they can work on attaining higher-order thinking skills with the help of the teacher. In fact, skills like application or analysis might be difficult to achieve if the student is left on their own without any support (Tolks, Schäfer, Raupach, Kruse, Sarikas, Gerhardt-Szép, & Hege, 2016).

Next, after reviewing the learning theories which this study is based on, it is also pertinent to explain how the use of technology has changed the way we teach nowadays, giving way to the appearance of new approaches that might be employed in SLA.

2.1.3. The use of technology in SLA. As technological innovations appear, the world has changed in the areas of communication, work, trade, entertainment, and education. With

respect to education, technology has facilitated students' achievement in learning environments. In fact, it has allowed students a better understanding of contents and opened new spaces for participation and dialogue (Garg, 2011). Thus, Electronic Learning (E-learning) has appeared and is defined as "the delivery of education (all activities relevant to instructing, teaching, and learning) through various electronic media" (Harman & Koohang, 2005, p. 77).

Indeed, Garg (2011) affirms that with the development of technology the teacher no longer teaches, but rather both teacher and students become learners. The role of the teacher is confined to devise a problem for the student to comprehend a topic after having worked out the solution. The teacher only helps students by providing recommendations, and thus, in the end, the teacher and students learn.

As stated previously, the use of computer technologies has its advantages in the field of SLA. First, new technologies allow teachers to create student-centered lessons by means of virtual learning environments. Second, technology appeals to the individual differences since the teacher is able to present new knowledge according to students' interests, increasing motivation and interaction levels. Third, it is said that opportunities for language retention will increase by combining technological resources with traditional ones (Al-Mahrooqi & Troudi, 2014).

Blake (2013) states that the best way to learn a language is to travel and live in the country where it is spoken. In this way, a person would be immersed in the culture and language most of the time. However, not all the students have the opportunity to do so because it comprises many resources. As a consequence, some students have to learn a foreign language inside a classroom with limited exposure to it. One positive aspect of technology is that it has enhanced Foreign Language Learning, helping students get more experience with the target language without the necessity of traveling abroad.

In the following section, Flipped Learning will be described as an e-learning approach to teach EFL students, using technology outside the classroom along with active participation of students inside of it.

2.1.3.1. Flipped Learning. Two chemistry teachers, Jonathan Bergmann and Aaron Sams, started to record videos for students who missed some of their lessons. Because their videos were successful in delivering instruction to absent students, they came up with another idea. This time, they created videos not for the absent students but for delivering new lessons to all of them. The videos rapidly attracted students' attention inside the classroom and in schools from the region. In this manner, these two chemistry teachers created a new educational approach which is known nowadays as Flipped Learning (Bergmann & Sams, 2014).

Lakmal & Phillip (2014) claim that by using the Flipped Learning approach, the traditional lectures are moved outside the classroom, and, in this manner, there is more time for practice and application. They provide a brief explanation of how a flipped classroom works. They state that:

> In a flipped classroom, the information-transmission component of a traditional face-to-face lecture … is moved out of class time. In its place are active, collaborative tasks. Students prepare for class by engaging with resources that cover what would have been in a traditional lecture. After class, they follow up and consolidate their knowledge (Lakmal & Phillip, 2014, p. 1).

The word "flipped" means inverted or reversed. Traditional learning involves the teacher presenting and practicing a topic in class while the students perform the application part (homework activities) alone at home. In the Flipped Learning model, each student reviews previously the material at home (usually through a screencast video). Then when they come inside the classroom, they apply the knowledge acquired through hands-on

activities with the teacher guidance (Ruffini, 2015). Figure 2 displays the contrast between traditional learning and Flipped Learning.

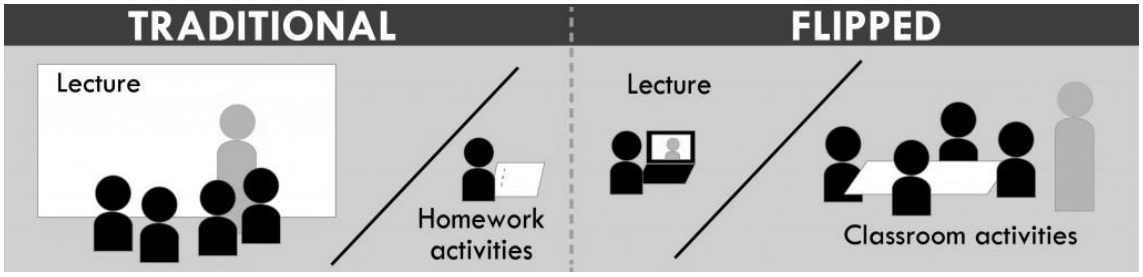

Figure 2. Traditional vs. Flipped Learning (University of Washington, 2017)

2.1.3.1.1. Flipping a Learning Environment. Bergmann & Sams (2014) , the creators of the Flipped Learning approach, have been successful in delivering flipped lessons for their own students, and they have interviewed many teachers who have been implementing Flipped Learning in their daily teaching jobs. By analizing, their personal experience along with other teachers' opinions, Bergmann and Sams have sintetized some of the most important components to create a Flipped Learning enviroment prior to deliver flipped lessons. The following ideas are mentioned.

The first component is collaboration. The task of flipping lessons becomes easier if it is done along with colleages. In this way, teachers are able to collect significant feedback with regards to how their flipped lessons are being implemented. In fact, Bergmann and Sams state that the most effective teachers are the ones who use the help of others. They suggest that teachers not only collaborate with each other in person, but they are able to share ideas on websites as well. There are social network sites which help teachers stay in contact and share educational material and ideas.

The second component is student-centered learning. In most classes, the teachers are the stars since they stand in front of the class all the time while delivering a lesson. However, Bergmann and Sams state that lessons are effective when teachers stop being in the front of

the class and start standing by the students' side, guiding and supporting their learning. Thus, students become the focus of the lesson.

The third component is optimized learning spaces. Although technology equipment such as projectors, LCD screens or interactive white boards have improved spaces for learning, classrooms can still be arranged in a way that promotes more student-centered lessons and less passive listening. Some ideas provided by Bergmann and Sams are the creation of collaborative and individual spaces in which teachers should emphasize learning not instruction.

The fourth component is time for implementation. To implement a flipped lesson, teachers will require a great amount of time spent on organizing procedures and resources for a lesson. Teachers need to plan the activities that are going to be done at home and in class. They need to gather online resources or start creating their own.

The fifth component is support from administrators. Teachers should be aided by the administrators of the institution during the implementation of Flipped Learning. This guarantees that they will get enough support in terms of resources and professional development.

The sixth component is support from the Information and Technology (IT) Department. Some teachers do not have much knowledge on how to use computers. In some cases, they have no idea on how to share resources or materials in online enviroments. Personnel from the IT deparment can offer advice and instruction about the educational platforms and websites available for use in a Flipped Learning process.

The seventh component is thoughtful reflection. A teacher should reflect on their own performance and their delivering of a lesson in terms of the desired outcomes. There are many ways to make a flipped lesson better since there is not only one way to implement this

approach. What might work for one teacher might be a failure for others, so being reflective on the learning process will make a teacher find what works best for their students.

2.1.3.1.2. Flipping Lessons. As aforesaid, there is not a fixed model of how a flipped lesson should be (Egbert, Herman, & Lee, 2015). However, in most lessons, the activities are planned according to the educational setting (home and classroom). The subsequent paragraphs will explain the activities done by the students outside and inside the classroom within a flipped lesson.

Outside the classroom, the students are asked to understand and remember new knowledge. They can access new content through videos, presentations or online sites (Bogan & Ogles, 2014). In most flipped lessons, teachers use videos, specifically screencasts, to deliver content (Bergmann & Sams, 2012).

Instructors can resort to other teachers' videos or create their own. At the beginning, it might be difficult for teachers to make a video since it requires time and preparation. For this reason, it is advised to start flipping a lesson with other teachers' videos, which can be found on online sites. However, if a teacher wants to start producing their own videos, Bergmann and Sams (2012) suggest using Camtasia Studio, a screencasting software, since it provides many options to elaborate screencasts. Camtasia studio will be described later in this chapter.

Inside the classroom, students are engaged in a variety of activities that involve interaction and skills development (see Active Learning techniques). With the presentation of knowledge outside the classroom, the time inside of it can be a great opportunity to engage students in hands-on activities. The instructor now supports students during the practice and application of new content, ensuring comprehension and skills development. It is time for the teacher to start reflecting on which activities would be meaningful and engaging for the students (Bogan & Ogles, 2014).

Instructors who are fond of lecturing for many minutes might have a hard time trying to figure out what to do inside the classroom. Now the content is on a video which students watch at home, and there is no need for lecturing in front of the class. Now the teacher stops being a speaker and begins acting as a facilitator, tutor and guide for their students (Bogan & Ogles, 2014).

In the field of Foreign Language Learning, teachers who apply the Flipped Learning approach are recording grammar lessons on videos for the students to learn at home. Then, inside the classroom, they are planning activities to practice a language in a significant way. Teachers design lessons which involve conversation, interaction, reading, and writing. Most of the activities encompass active participation of the students while employing the target language (Bergmann & Sams, 2012).

The next section will elucidate how screencasts are a fundamental tool to deliver instruction for students at home during the implementation of flipped lessons.

2.1.3.1.3. Flipping through screencasts. According to Thompson and Lee (2012), "Screencasts are digital recordings of the activity on one's computer screen, accompanied by voiceover narration that can be used for any class where assignments are submitted in some sort of electronic format" (para.1). Although screencasts were used in the nineties, the term "screencast" appeared in 2005; its creation is attributed to a columnist named Jon Udell, who employed this technique to instruct his readers on the use of computer programs (Ruffini, 2015).

According to Bishop and Verleger (2013) screencasts are as effective as teachers to deliver instruction. They affirm that video lessons have improved the way people learn. In the past, people used to pay for education, but now there are open educational resources available to expand schooling. For instance, Khan Academic is an organization that has created more than 3200 videos which are shared world-wide for free. Another example is TED-ideas worth

spreding which is a non-profit organization that distributes online video-lectures on the subjects of technology, education and design (Tolks, et al., 2016).

Nowadays, 25% of the world's population watches online videos on their computers, cellphones or tablets. With the developtment of new technologies, video production has increased around the world. People can have access to a variety of videos that go from high-level production videos to simple educational ones (Rethlefsen, 2009).

In order to deliver instruction in an online enviroment, a teacher does not need to be a software expert to make videos. There are many tools available for instructors to create basic instructional videos to transmit content in a simple way. Rethlefsen (2009) states that Camtasia Studio is among the most popular screencast software tools.

Camtasia Studio is often used, especially in education, to create screencasts and deliver information to students in an attractive way. This tool allows the teacher to record events happening on a computer screen along with narration. Thereafter, diagrams, shapes, colors or lines can be added to the video to make content clearer. Camtasia Studio was used to create screencasts during the implementation of this study because of its advantages and features. The software producers affirm that Camtasia has this three objectives (Techsmith, 2017) :

- Recording: the user is able to record what is happening on the computer screen.
- Editing and Enhancing: the user is able to cut parts of the video or audio as desired. Then they can add some visual effects (colors, shadows, speed), some animations (zoom in/out) or anotations (text, lines, shapes) on specific sections to improve video explicitness.
- Sharing: the video file can be saved in the most popular formats on the web (mp4, mov, mp3) for posterior distribution.

Sugar, Brown, and Luterbach (2010) provide five instructional strategies for making screencasts:

a) Provide an overview: screencasts can be employed to introduce a topic, providing background information and a rationale.
b) Describe a procedure: screencasts can be oriented towards explaining procedures or sub-procedures. For example, there are popular video tutorials for software use on the web.
c) Present a concept: screencasts can focus on explaining ideas or theories, sometimes accompanied by examples.
d) Focus attention: screencast can catch the viewers' attention by using software animation on the screen.
e) Elaborate content: screencasts can enrich the viewers' understanding by providing additional resources and advice for self-learning on the topic. For instance, a teacher might provide useful links to important websites at the end of a screencast.

Only two strategies were employed in this study, present a concept and focus attention. In each screencast, a grammar point was presented to the student along with examples, and, during each video, the students' attention was directed towards focusing on a specific part of the screen. This was done by using the cursor on the screen, different colors and shapes, and specific software animation (highlighting, vanishing) (Sugar, Brown, & Luterbach, 2010).

The next section will explain how English grammar was imparted through screencasts during the implementation of Flipped Learning.

2.1.3.1.4. Flipping English grammar. The importance of grammar instruction is pointed out by Beverly (2007) who states that, "Grammar is the sound, structure, and

meaning system of language. All languages have grammar, and each language has its own grammar" (p.1). In fact, human beings are able to communicate ideas to other speakers of the same language by using grammar to structure part of this language. For Larsen Freeman (2003), grammar is an essential part when communicating ideas in written and spoken language. Without an accurate grammar performance, exchange of ideas would be obtrusive and sometimes incomprehensible.

Scrivener (2013) affirms that without grammar, we can still convey our ideas, but at a very elemental level. For instance, if an individual says "water, glass, please", it is understood that he is requesting for a specific drink. However, at a higher level, it is necessary that learners acquire grammar rules and structures to communicate more elaborated ideas. In our daily life, grammar becomes essential to convey thoughts successfully and accurately in spoken or written form.

In addition, some researchers claim that grammar should be taught not only according to the students' needs but based on the principles of comprehensibility and acceptability. People need to make a correct use of grammar structures to be understood while speaking a language (comprehensibility). In the same manner, if people utter grammatically incorrect sentences while producing the language, native speakers might not accept that language and might consider them as less educated or clumsy (acceptability) (Richards & Renandya, 2002).

In general, grammar can be taught in an explicit and implicit manner (see figure 3). The explicit approach has to do with teaching students the rules and their application. On the other hand, the implicit approach deals with providing students meaningful input without resorting to any rule. In the present study, the explicit approach was employed to deliver English grammar instruction (Christison, Christian, Duff, & Spada, 2015).

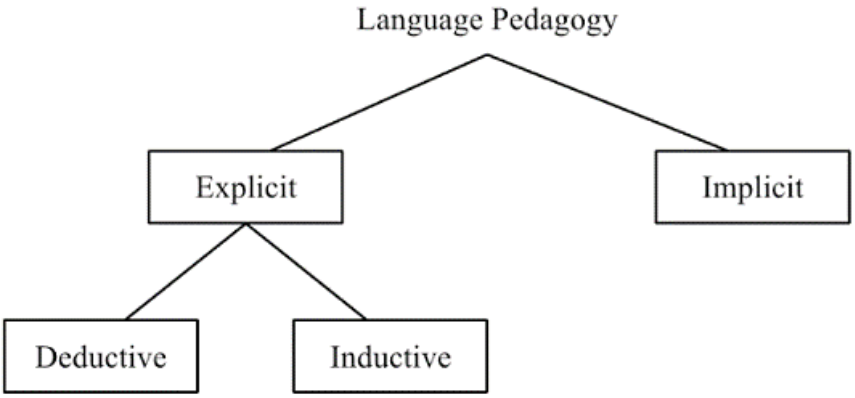

Figure 3. Taxonomy of approaches to teaching grammar (Christison, Christian, Duff, & Spada, 2015).

Within the explicit approach, grammar can be taught inductively and deductively. An inductive approach is the one in which the instructor presents a rule, and then some illustrations in which the rule is applied. In contrast, a deductive approach takes place when the teacher presents examples from which students discover the rules by themselves (Christison, Christian, Duff, & Spada, 2015).

In order to deliver English grammar instruction through screencasts the inductive approach was selected. Teaching grammar inductively is suitable since it is time-saving and adult-oriented (Thornbury, 1999). Moreover, research conducted by Andrews (2007) showed that explicit grammar instruction, through an inductive approach, is a good option when the rules are too complex to be grasped by the learners. In the same manner, Spada & Lightbown (2008) claim that form-focused instruction (explicit inductive instruction), is a good option to teach target language structures that students cannot comprehend by inference and without an instructor assistance.

2.2. Literature Review

As stated before in Chapter I, the three dominant components of this study are Flipped Learning, screencasts, and grammar instruction; therefore, it was pertinent to carry out the

review of literature taking into consideration these components. It is necessary to restate that research on Flipped Learning methods in the field of SLA is limited (Lakmal & Phillip, 2014); however, the following data can be retrieved from the prevailing studies.

2.2.1. Previous studies on Flipped Learning. Regarding Flipped Learning practices, there have been some studies about its application which have revealed its effectiveness in Teaching English as a Foreign Language (TEFL).

In the first place, there is a study effected by Leis (2015) with 17 EFL university students in Japan. Leis employed a pre- and post-test design, and he sought to improve English composition by implementing the Flipped Learning approach. The outcomes of the study revealed that the students showed an increase in the number of words in the production of written texts. In the pre-test, students wrote an average of 131.18 words per composition, while in the post-test, they could increase the amount to 255.88 words per composition.

Another study was done by Webb, Doman, and Pusey (2014) with 136 EFL university students in Macau, China. Researchers employed observations, surveys, and journals to collect qualitative data to identify the students' perceptions towards Flipped Learning. They employed three control groups and three experimental ones during a 15-week English course. The qualitative results revealed that the experimental group did not support the Flipped Learning approach during the first weeks. However, after continuous exposition to this approach, they changed their mind and felt comfortable with this new methodology. In fact, the researchers state that this group of students desired further online instruction after the course came to an end.

Chen Hsieh, Wen-Chi, and Marek (2014) undertook a study with EFL English-major students in Taiwan. A mixed methods design was adopted employing a pre- and post-test design, questionnaires, observations, and focus groups as sources of data collection. The outcomes indicated that Flipped Learning encouraged students' participation in class and

boosted their level of motivation. Also, it was reported that the participants increased their knowledge of English idioms, which was the main goal in the study.

2.2.2. Previous studies on screencasts. The second component of this study is screencasts. It is fascinating to point out that they were originally created to instruct people about computer software; however, nowadays, there have been some previous studies on the use of screencasts as an educational tool to enhance learning and motivation in the field of education. (Ruffini, 2015; Green, Pinder-Grover, & Millunchick, 2012).

A research conducted by Sugar, Brown, and Luterbach (2010) made an evaluation of screencasts as an instructional tool in education. They collected qualitative data from teachers and students, and this information was based on previous experiences with screencasts. After an intense data analysis process, the authors established some common strategies and elements of screencasts for delivering successful lessons. As for strategies, they state that screencasts are mainly used to describe a procedure, present a concept, focus attention, or elaborate content. Among the elements mentioned are the use of bumpers (a phrase used to start/finish a screencast), screen movement, and narration.

With reference to the narration element of screencasts, Mohamad, Samsudin, Hassan, & Sidek (2011) carried out a study to examine the effects of screencasts with and without narration. They employed a pre- and post-test design and a control and an experimental group. The outcomes of the study demonstrated that students' performance improved when screencasts were accompanied by a narration.

Considering motivation enhancement, Morris and Chikwa (2014) conducted a study to explore whether screencasts were engaging for students and the reasons for that engagement. The research was carried out in the United Kingdom, and the participants were 108 university students who received screencast instruction for a whole academic year. The outcomes of the study were encouraging since students had positive comments towards the

insertion of screencasts in a lesson. Students declared that they felt engaged while watching screencasts because they helped them to improve understanding. They also mentioned that videos are better if they are short. Moreover, they manifested that watching videos at home makes them feel comfortable and helps them learn content at their own pace. Finally, something surprising was that gender was not an important variable during the study.

2.2.3. Previous studies on grammar instruction. About grammar instruction within a Flipped Learning approach, Webb and Doman (2016) conducted a mixed methods research in Macau and in the United States simultaneously. The participants were 64 higher education students who were divided into two experimental groups and two control groups. The experimental groups were exposed to explicit grammar instruction through videos and online activities for ten weeks. Then a pre-test and a post-test were applied to measure students' performance. Results showed that students who were exposed to grammar instruction through the Flipped Learning approach increased their grades from 65.85 points to 71.77 points. Additionally, the researchers gathered qualitative evidence through a questionnaire to triangulate the results. The information collected from a survey showed that students felt more self-confident and relaxed with their grammar skills after the intervention. Eventually, the authors concluded that a Flipped Learning approach benefits students by enabling them to enhance their grammar knowledge in an ESL/EFL context.

Another research was conducted by Kang (2015) in Korea. Twenty-four university students were part of a treatment group while taking a general English course for 16 weeks. In order to gauge improvement, the researchers applied a pre- and post-test design to measure vocabulary and grammar. The post-test scores were analyzed statistically and displayed an increase on grammar knowledge. This was supported by the application of the t-test, getting a result of p=.0011 ($<$.05).

2.2.4. Final words on previous studies. The previous studies presented in this literature review have shown favorable results in connection with the three components of the present study: Flipped Learning, screencasts, and grammar instruction. In addition, research in the field of EFL is scarce in the Ecuadorian context since most of the literature presented was carried out in Asian and English speaking countries. Therefore, it is necessary to undertake research in our context to explore students' performance and perception of a Flipped Learning process by using screencasts to foster English grammar acquisition.

In the following chapter, the methodology employed to measure grammar performance and students' perception on the Flipped Learning approach will be described.

Chapter III: Methodology

This chapter will include all the relevant aspects as to how the current research project was carried out. Essentially, it will explain how the effect of Flipped Learning on grammar acquisition was measured. Likewise, it will describe how the participants' perceptions on the approach were elicited. This methodology was planned according to the ideas provided by Mackey & Gass (2015), Creswell (2014) and Dörnyei (2007).

3.1. Context

The present research was carried out in the Language Institute at the University of Cuenca. This is a public university located in the city of Cuenca, Ecuador. The intervention lasted for a complete semester from September 2016 to February 2017. Twelve grammatical structures were delivered through the suggested approach.

3.2. Participants

There were 25 participants, whose ages ranged between 18 and 26, with an average age of 21.64 (SD=2.25). There were 15 male and 10 female students. Twenty-three participants were Architecture students, and two of them were from the Psychology and Engineering schools respectively. All the individuals were native speakers of Spanish. Twenty-two students came from public high schools, whereas three students had attended private institutions. None of them had attended a course in a private school for learning English exclusively. They were EFL students who were enrolled in a mandatory level 1 English course. At the end of this course, they had to achieve an A1 level in accordance with the Common European Framework Reference (CEFR) for languages. The participants received 6 hours of instruction from Mondays to Thursdays. Each session lasted one hour and a half, from 1:00 pm to 2:30 pm. They did not have to follow a course book, but the instructor provided material gathered from books and the Internet. Initially, there were 28 participants.

However, during the intervention, 3 students abandoned the investigation due to unknown reasons. Thus, the study was carried out with 25 students.

Convenience sampling, a nonrandom sample method, was used to select the participants of the Language Institute at the University of Cuenca. Although convenience sampling has its caveats, it is still commonly used in Second Language research at postgraduate level (Mackey & Gass, 2015; Dörnyei, 2007). The individuals were part of an intact class (an already-formed group), and they were selected because of their proximity and availability to the researcher.

The reasons for using convenience sampling in this study are as follows. First, the students were part of an intact class in which randomization was not feasible. Second, working with a random sampling method was discarded since not all the English students from Cuenca are available for a selection. Usually, students do not have time to collaborate in a research project since they attend different institutions and have differing subjects and schedules. Third, even though it was a convenience sample, the group consisted of mixed individuals. Students varied in age, gender, and English skills. Finally, it is also important to mention that they were taking the course with the instructor for the first time.

3.3. Ethical considerations

The identity of all the participants was known only by the investigator and was not divulged to any other person outside the research project. Participants were informed about the purpose and procedures of the study along with its risks and benefits. All the participants signed a written consent form before entering the project. The students were assigned a code to keep their identities private. They were informed that they were free to leave the project at any time, and that they were welcome to contact the researcher with questions regarding the study. Similarly, it was necessary to request permission from the authorities of the institution,

and they agreed on the implementation of it (the written consent form is available in Appendix B).

3.4. Research design

A convergent parallel mixed methods design was applied in this study; therefore, qualitative and quantitative data were collected separately. Eventually, the findings were compared to examine whether the outcomes support or exclude each other. Creswell (2014) affirms that the combination of methods reinforces a study since it provides an understanding of the participants' views within the context of an experimental intervention (see Appendix A for a detailed diagram of the research design).

This mixed methods design facilitated the examination of the research problem by converging both quantitative and qualitative data to corroborate the results. A pre- and a post-test were used to measure the relationship between the usage of Flipped Learning employing screencasts and the students' performance on grammar. Likewise, the students' perceptions towards Flipped Learning were explored by means of students' journals and a satisfaction questionnaire.

3.5. Variables

Independent variable: Use of Flipped Learning employing screencast videos.

Dependent variables: Students' performance on grammar and their perceptions of Flipped Learning.

3.6. Resources

This research required anticipated elaboration of the didactic material for the students at home and in class.

Screencasts were created for the students to watch at home. Consequently, specific software and technological devices were obtained to produce the screencasts. The software

employed was Camtasia Studio and Prezi, and the devices needed were a microphone, a video camera, and a computer.

In addition, it was necessary to create a virtual learning environment (VLE) to distribute the resources for the students at home. E-virtual, the educational platform of the University of Cuenca, was used for this purpose. This platform was built on Moodle in 2009 with the aim of facilitating teaching tasks. Moodle is a type of software designed to help educators create high-quality online courses and VLEs. E-virtual was chosen since all the students were acquainted with this platform and could easily access it.

Furthermore, the Google Forms service was employed to gather the electronic feedback from the students. This service allows the users to create custom forms for surveys and questionnaires for free. The data obtained was gathered in a spreadsheet for posterior use and analysis. Each form contained an embedded video and a textbox in which the participants had to write their comments (see appendix K). In fact, this procedure turned out to be useful since it provided the time and date the students accessed each video, which was positive for monitoring students' work at home.

Finally, Active Learning activities were researched and planned for its posterior use in the classroom. The resources employed in the design of the activities were: a word processor software for creating handouts and a presentation software for making slide presentations. Some lessons required the use of a projector and smartphones which were present inside the classroom.

3.7. Data collection Techniques and Instruments

Because this study consists of a mixed methods design, the data collection techniques will be explained in terms of the quantitative and qualitative parts respectively.

3.7.1. Quantitative part.

3.7.1.1. Pre-test /post-test. The pre- and post-tests were validated since they were obtained from the book American English File 1 from Oxford University Press (Oxenden, Latham-Koenig, & Seligson, 2008). They were pilot tested before their application with a different group of students who were in the same level as the participants in this study.

The pre- and post-tests consisted of 12 questions which were related to the 12 grammatical structures imparted. In each question, there were five items correspondingly. It is significant to clarify that the pre- and post-tests mirrored each other. The questions in both the pre- and the post-test had a similar difficulty and type (multiple choice and fill in the blank). Likewise, the lexical items used in both tests had a similar level of difficulty, and they were chosen in accordance with the CEFR level that the students had to obtain at the end of the course. On the other hand, the pre- and post-test had different lexical items, as advised by Mackey & Gass (2015) about testing grammatical improvement (the pre- and the post-test are available in Appendix C).

3.7.1.2. Survey. In order to elicit information from the students, two questionnaires were administered to them.

The first questionnaire was related to internet use. The purpose of this questionnaire was to investigate if the students had the appropriate environment for the flipped lessons at home. This questionnaire had six closed questions and was adapted from Davis (2016). It was pilot tested with a group of students who were in their sixth semester. The student's level was not relevant since the questionnaire was not supposed to test language skills but the respondents' context for learning (the Internet Use questionnaire is available in Appendix D).

The second questionnaire was a satisfaction questionnaire. Its purpose was to explore the students' perceptions of Flipped Learning and screencasts after the intervention. This

questionnaire was pilot tested with students from a similar background than the participants of the study.

This satisfaction questionnaire was adapted from previous Flipped Learning Studies: Johnson (2013), Gonzalez-Gomez, Cañada, and Jeong (2016), and Pinnelli, Fiorucci, and Sorrentino (2016). It consisted of 12 closed questions, except question 7 which was an open-ended one. The answers were in the format of a Likert scale with five options: Totally agree, agree, neutral, disagree, totally disagree. The questionnaire was delivered to the participants in their mother tongue, Spanish, to make sure they answer at ease and without limiting their ideas.

The satisfaction questionnaire had two sections. In the first section, from question 1 to 7, the students were asked about the Flipped Learning process. In the second section, from question 8 to 12, the students were asked about the screencasts videos they watched during the intervention. It was done in this manner because it was necessary to make participants aware that they were not being asked only about the videos but the process as a whole. The instructor clarified these two sections to the participants in advance (the satisfaction questionnaire is available in appendix E).

3.7.2. Qualitative part.

In the qualitative part, the participants were asked to send a journal entry electronically in English, and they answered an open-ended question.

3.7.2.1. Students' Journal entries. The purpose of the students' journals was to grasp the students' thoughts and feelings regarding their learning experiences with the implemented approach. It was an attempt to uncover what is on the students' minds that cannot be elicited by direct observation or questionnaires.

Event-contingent was the type of diary employed as a data elicitation tool. This type of diary required the participants to write down a report after a clearly defined occurrence (Dörnyei, 2007).The students were asked to watch the screencasts at home prior to the in-class lesson, and they had to write a journal entry afterwards. They sent each entry electronically through Google Forms (see appendix I for a journal entry sample).

At the beginning, it was planned to pose questions to the students for each video, but, in the end, there were no questions. The space was open for the students to comment without any limitation, expressing their inner thoughts. In fact, Mackey and Gass maintain that journals help learners "…to write about their language learning experiences without the constraints imposed by specific questions" (2015, p. 177). In addition, this type of journal entry was opportune since it allowed the instructor to read the journal entries and progressively improve some aspects of the implementation process, such as the video production or the amount of classroom activities.

3.7.2.2. Open-ended question. There was an open-ended question included in the satisfaction questionnaire which was question 7. Students were asked about whether they would like to learn with the same approach in the future, and they were required to justify their responses.

3.8. Data Collection

In the present study, the data were collected in three stages: (a) before, (b) during, and (c)after the intervention. The following paragraphs will explain each stage during the data collection process.

3.8.1. Before the intervention. As Bergmann and Sams (2014) suggested prior to the implementation of Flipped Learning, the instructor had to analyze the context first. As stated in previous chapters, a flipped lesson demands the students to allocate time at home and to

have some device connected to the internet to watch the video lessons. For the previous reason, a questionnaire about Internet use was given to the students. The questionnaire revealed that all students in the group had the appropriate resources for the intervention (Results from the Internet use questionnaire are available in Appendix H).

To gauge the participants' starting point of grammar performance, a pre-test was applied. The students received clear explanations about the purpose of the pre-test, and it was clarified that the test was not considered for the grades of the general course. Once the pre-test was applied, the intervention began.

3.8.2. Intervention. The flipped lessons began in September 2016. Every lesson was delivered in two settings. One part was delivered at home and the other part in the classroom.

3.8.2.1. At home. At home, the students dedicated their time to study and understand new content through a screencast. The explanations were delivered through an explicit inductive method to teach grammar. This was the only homework activity they had to do in an attempt to make the student feel relaxed while watching the videos.

Additionally, the participants kept a journal. After the students watched a video, they had to send written feedback electronically through the Google Forms service. This journal procedure was chosen in order to confirm that each participant had watched the video at home. Indeed, the journals proved to be an advantageous data elicitation tool since students were able to express their ideas while their thoughts were still fresh in their minds (right after they had watched the video). Similarly, they had to write a summary of the screencast content and bring it to class. In this manner, the instructor could monitor the students' work at home.

The videos were carefully recorded by the instructor before the delivery of each lesson. The duration of the videos was no longer than 6 minutes, so that the students

maintained their interest and could watch it until the end. Each video took around 5 hours to make. The video production was adapted according to the students' comments in the journal entries. As a consequence, the videos could not be elaborated with anticipation but as the lessons progressed. The idea of using already existing material was discarded since some of the videos that were available did not suit the participants' needs. For instance, some videos delivered fast, long and general explanations which could make comprehension harder for a beginner student of English.

3.8.2.2. In class. Inside the classroom, the participants were exposed to Active Learning techniques based on the theories presented in Chapter II. The aim of these activities was to practice and apply the targeted grammar topic that they had studied previously at home. The students worked individually, in pairs and in groups.

During the lessons inside the classroom, the teacher did not teach English grammar in any way. At the beginning of each lesson, the instructor along with the students discussed the video briefly, eliciting and checking the students' readiness to start the class.

Appendix F contains a template of the lesson plan employed during the intervention.

3.8.3. After the intervention. After 12 grammatical structures were taught, a post-test was applied to examine whether the participants had experienced an increase in their grammar performance. In the same manner as the pre-test application, the students knew beforehand that the post-test scores were not going to be part of their final grade for the current semester. (See appendix J for some pictures taken during the research project)

Additionally, a questionnaire based on a Likert scale was given to the students to analyze their perceptions towards the Flipped Learning approach. Also, part of the questionnaire was aimed at exploring the participants' insights on the use of screencasts. It

was pertinent to indagate the efficacy and quality of the screencasts since they were the primary resource for learning at home.

In previous studies, participants supposed that Flipped Learning was only about watching videos at home without considering the in-class lessons. Therefore, by specifying a section for the Flipped Learning process and another for the screencasts, it was certain that the participants could be aware of the previous issue and provide an accurate judgement. Another reason for the use of two sections is that one of the research questions deals with the use of screencasts as the only resource at home to deliver instruction, and, having the questionnaire distributed in two parts favored the data elicitation and its posterior analysis.

3.9. Data Analysis

The quantitative data obtained from the pre- and post-tests and questionnaires were displayed employing descriptive statistics. The information was organized using graphs in order to show statistical relationships and tendencies.

For the presentation of results, measures of central tendency and dispersion were employed. The behavior of the data of the total grades turned out to be normal, as confirmed by the Shapiro Wilk test of normality for small samples ($p > 0.05$). Because the data had a normal behavior, a parametric test of comparison of means was effected; this parametric test is known as T-student for related samples. For a better display of results, a box-and-whiskers diagram was used. In addition, the nonparametric test of Wilcoxon was employed to compare the performance of students, and some changes were observed in the results. Students' perceptions were shown by stacked bar graphs, and the results attained were correlated with the post-test scores using the non-parametric Rho Spearman test. The decisions were taken with a consideration of $p > 0.05$ as a probability value.

As for qualitative data, the information obtained from the open-ended question (question 7 from the satisfaction questionnaire) was presented using a bar graph and a chart.

The students' journals were coded into categories and interpreted in order to identify patterns and trends. The categories chosen were "positive comments" and "negative comments".

The data processing was done with the statistical program SPSS 23, and tables and graphs were edited in Excel 2016.

Chapter IV: Results

In this chapter, the results will be presented in an effort to determine the effect of Flipped Learning on grammar acquisition. The following findings will be displayed in terms of the students' performance on grammar tests and their perceptions of Flipped Learning after the implementation.

4.1. Students' Performance on Grammar

To gauge the students' grammar skills, a pre-test and a post-test were given. This section will disclose the results in the following order: First, an analysis of the performance by grammar topics will be presented. Then, positive and negative changes found in each grammar topic will be evaluated. After that, the final scores from the pre-test and the post-test (see Appendix C) will be analyzed in general. Finally, some additional results gathered from outside the research design will be reported.

4.1.1. Pre- and post-test scores regarding grammar topics. The pre- and post-test scores were evaluated by each grammar topic, and most of the analysis and interpretation was carried out considering the significant differences encountered. Analyzing the pre-test scores by grammar topic provided an understanding of how much knowledge the students had before the intervention process, while evaluating the post-test scores helped to determine how much knowledge they gained in each one.

In the pre-test, the answers referring to the "Present of be" and "Modal verb can" obtained the greatest number of correct answers among the grammar skills evaluated with average grades of 4.3 / 5. It seems that the students already knew those grammar points. The topic with the lowest average corresponded to "Present continuous" with an average of 1.4 / 5 (SD = 1.7), which suggests that the students did not have a good understanding of this topic.

Sometimes the present continuous structure can be complex for students since it is composed of an auxiliary verb (be) and a main verb (verb+ ing).

On the other hand, in the post-test, the assessment of grammar skills in all cases obtained average scores starting from 3.9 points (SD = 0.9). The highest average was detected in the topic "There is / are" ($\bar{x}$= 4.9, SD = 0.3). It turned out that the students understood this topic very well. Perhaps, a reason for this success is that this grammar point was taught using real information about places from this city, Cuenca. For instance, they were asked to describe their favorite places using real facts, and this might have led them to grasp the function of the structure, which is *describing existence*. The second highest average was spotted in the topics "Modal verb can" and “Possessive adjectives”, both with a mean of 4.8 (SD = 0.4). Here, it was somewhat surprising that even though the students started the intervention with a considerable knowledge of the “Modal verb can”, they could still expand it. Furthermore, it seems possible that students learned “Possessive adjectives” in an effective way because of the pictures employed in the screencasts. One of the most common errors students make is to use *your* for all subjects. For example, they say things like “He likes to visit your mother” instead of “He likes to visit his mother.” It is probable that by having included some images to explain the relationship between the subject pronouns and possessive adjectives, the students could understand the topic in a better way.

Finally, a surprising detail was that there were no significant differences in students' scores regarding the subjects: "Present of be", "Frequency adverbs" and "Simple past"

(p<.05). In view of this precedent, it might be stated that there were some limitations while collecting the students' scores, and further details will be reported in Chapter V.

Table 1 shows in detail the average scores obtained by students in the pre- and post-tests by grammar topic.

Table 1.
Grammar Topics

	Pre-test		Post-test		p
	Average	SD	Average	SD	
Present of be	**4.3**	1.1	4.4	0.5	.857
Simple present	3.7	1.4	4.4	0.9	.005*
Present Continuous	1.4	1.7	4.1	1.4	.000*
Modal verb can	**4.3**	1.2	**4.8**	0.4	.039*
Articles: a, an, the	3.9	1.2	4.6	0.6	.015*
Possessive Adjectives	3.9	1.2	**4.8**	0.4	.001*
Object pronouns	2.8	1.1	4.3	0.7	.000*
Frequency Adverbs	4.0	.9	4.5	0.8	.055
Prepositions of time and place	3.0	1.3	4.2	0.9	.000*
There is/are	3.9	1.3	**4.9**	0.3	.001*
Quantifiers	3.4	1.2	4.4	0.8	.003*
Simple past	3.6	1.0	3.9	0.9	.346

*Note: * Significant difference*
Source: Avendaño

4.1.2. Positive and Negative changes in scores between the pre- and post-tests.

Another way of analyzing the effectiveness of the flipped lessons on students' grammar performance is by keeping track of the positive and negative changes in the students' scores by grammar topic. A change will be considered as positive if the participants increase their pre-test scores in the post-test. On the contrary, a change will be regarded as negative if they get a lower post-test score compared to the one obtained in the pre-test. Finally, the label "no change" will be used to designate those students who got the same score in both tests.

The greatest number of negative changes occurred in "Present of be" and "Simple past" with 10 and 8 negative changes respectively. At the beginning, it seemed that the

students had a substantial understanding of these two topics. However, as the lessons went on, there were certain constraints that could make them lose part of their previous knowledge. As aforesaid, possible limitations will be elucidated in the ensuing chapter.

As for positive changes, in the "Present continuous", 22 people reflected positive changes, which was the most significant change among the topics evaluated. It is evident that the students enhanced their knowledge of this structure because of the videos and classroom activities. The video was accompanied by sound, pictures, colors, and animation, which displayed the function and structure of the present continuous; whereas in class, the students were exposed to games such as *charades* or *find the differences*. Next, in the topic "Object pronouns", there were 19 positive changes. Similarly, the video was fundamental for the students to understand this topic since it was observed that they started the lesson with confidence on the use of object pronouns. It may be possible that the examples and the outlined grammar structures in the video were clear enough for the students to grasp this grammar point.

Regarding the label “No change”, it was observed that in the subjects "Simple present" and "Modal verb can", 13 students had the same score on the pre- and post-test. In some cases, it is likely that students have formerly learned to use incorrect phrases or words in English, and, as a result, they make the same mistakes over and over again.

Table 2 depicts a complete detailed list of the changes in scores regarding the grammar topics.

Table 2.
Changes between the pre- and post-tests

	Negative changes	Positive changes	No change
Present of be	10	7	8
Simple present	1	11	13
Present Continuous	1	22	2
Modal verb can	3	9	13
Articles: a, an, the	4	11	10
Possessive adjectives	1	14	10
Object pronouns	0	19	6
Frequency Adverbs	3	11	11
Prepositions of time and place	4	18	3
There is/are	0	13	12
Quantifiers	4	15	6
Simple past	8	12	5

Source: Avendaño

4.1.3. Pre-test and post-test scores. On the pre-test, students scored between 27 and 54 points with a mean of 42.24, a low data dispersion (SD = 7.76) and a normal data behavior (p = 0.164); however, on the post-test, their scores ranged between 47 and 59 points with a mean of 53.48 and a uniform (SD = 3.11) and normal behavior (p = 0.245). There was a significant increase in the average of scores which corresponds to 11.24 points (p <0.05), which means that students improved their scores after the Flipped Learning implementation. Figure 4 shows the distribution of the pre- and post-test data visually represented.

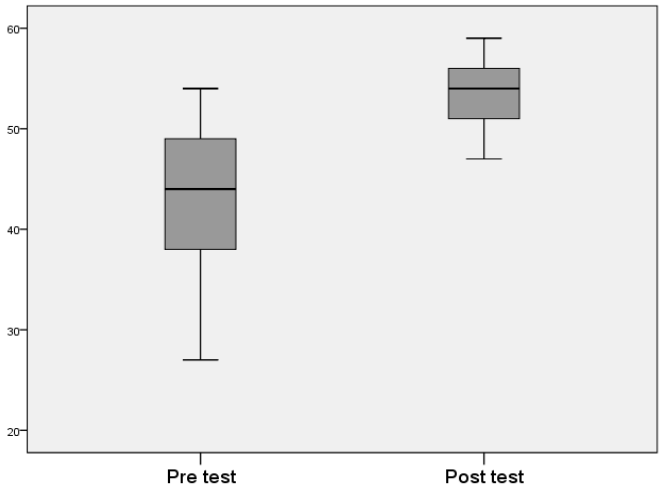

Figure 4. Pre-test and Post-test distribution
Source: Avendaño

4.1.4. Additional Results. In addition to the corroborating evidence found in this research project, the final post-test results were compared with those of a group of 24 students. These students had a similar background to the ones in this research, but they learned grammar using a traditional in-class method. From now on, this group will be named "Traditional Group" whereas the group of this research will be called the "Flipped Group."

It is important to mention that this data elicitation tool was not officially part of the present study; in fact, it was not included in the methodology section since it was a product of inquisitiveness and was considered extra information to support main findings.

The Traditional Group cannot be considered as a control group since it was given only the post-test. The purpose of employing only the post-test was to examine the grammar skills that participants acquired with a method other than Flipped Learning. The starting point was never measured with a pre-test because the idea developed when the students were already finishing the semester.

After comparing the post-test average scores per topic between the Traditional and Flipped groups, the results revealed that students who learned through Flipped Learning scored significantly higher in 9 of the 12 topics compared to the group of students who learned grammar using a traditional method. There were no significant differences on the topics "Simple present", "Modal verb can" and "Simple past". Further details are observed in Table 3.

Table 3.
Difference in the post-test scores

	Flipped Group		Traditional Group		P
	Media	SD	Media	SD	
Present of BE	4.4	0.5	4.0	0.464	.028*
Simple present	4.4	0.9	3.9	1.283	.125
Present Continuous	4.1	1.4	1.8	1.865	.000*
Modal verb can	4.8	0.4	4.5	0.779	.135
Articles: a. an. the	4.6	0.6	3.7	0.917	.000*
Possessive adjectives	4.8	0.4	4.4	0.717	.018*
Object pronouns	4.3	0.7	2.9	1.484	.000*
Frequency Adverbs	4.5	.8	3.0	1.251	.000*
Prepositions of time and place	4.2	0.9	3.5	1.180	.022*
There is/are	4.9	0.3	3.7	1.829	.004*
Quantifiers	4.4	0.8	3.8	0.816	.005*
Simple past	3.9	0.9	3.3	1.204	.083

*Note: * Significant difference*
Source: Avendaño

The final post-test scores of the students in the Traditional Group had variations between 24 and 59 with a mean of 42.63 and a low standard deviation of 8.25, which was greater than that of the Flipped Group (SD = 3.11). The T-Student statistical test for independent samples revealed a significant difference of means (p <0.05), which was equal to 10.85. It appears that those students who learned with the Flipped Learning approach scored significantly higher ($\bar{x}$=53.30) than the group who learned with a different method. Figure 5 displays graphically this significant difference in the post-test scores between the Flipped and Traditional groups.

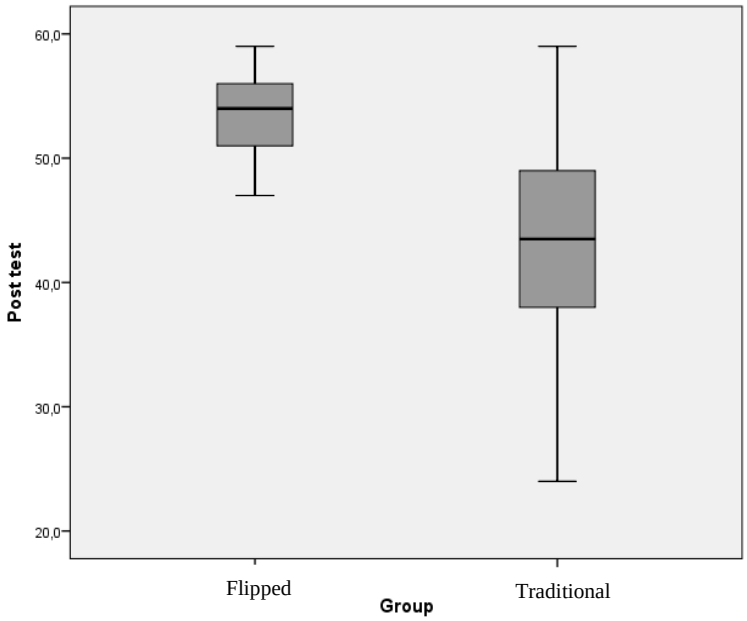

Figure 5. Post-test scores: Flipped and Traditional Groups
Source: Avendaño

4.2. Students' Perceptions

Data regarding students' perceptions on the Flipped Learning approach were obtained by means of a questionnaire and students' journals (see Appendices E and I).

4.2.1. Questionnaire results. The questionnaire consisted of two sections, and the results will be displayed in connection to them. The first section was designed to inquire about the students' perceptions on Flipped Learning, whereas the second section was intended to find out about their perceptions of the screencasts. Finally, a correlation analysis between the students' perceptions from the questionnaire and their learning outcomes will be described.

4.2.1.1. Students' perceptions on Flipped Learning. Items 1 to 7 asked students about the Flipped Learning approach exclusively. Items 1 to 6 were close-ended and will be explained first. Then item 7, which was open-ended, will be explained afterwards.

For the close-ended items, 1 to 6, answers were based on the following scale:

5 *Totally agree* 4 *Agree* 3 *Neutral* 2 *Disagree* 1 *Totally disagree*

After analyzing the students' responses, it was found that all the perceptions about the use of the methodology as a tool for learning English grammar had a tendency towards *Totally agree*. Fifteen people agreed with the statement regarding "I felt involved in the learning process." It seems that the Active Learning techniques promoted energetic participation in the lesson. In addition, all the participants had positive perceptions (*Agree* and *Totally agree*) that the methodology facilitated the learning of the contents. Most students supported the idea that Flipped Learning enhances the way they learn. Moreover, 16 students declared that they felt the constant support from the instructor during the lessons. It seems that the instructor stopped being a lecturer and had enough time to guide the students, providing individualized assistance. Furthermore, 18 students stated that they felt comfortable learning at home. There is a possibility that they had an appropriate, calm and quiet learning environment in addition to the technological resources. Finally, 21 students (14 *Totally agree* and 7 *Agree*) expressed that Flipped Learning helped them manage their time and place to learn. It is likely that students prefer the flexible schedule offered by this approach since it does not require a specific time or place to learn. The only condition is that the student should have a device to access the content.

On the contrary, there were some negative perceptions as well. Fourteen participants mentioned that they preferred the classroom lessons, while 11 were neutral in this item. It seemed that these students had an appropriate setting for learning, but they might have lacked time or peacefulness at home.

Figure 6 shows a complete overview of the total answers for each statement in the questionnaire.

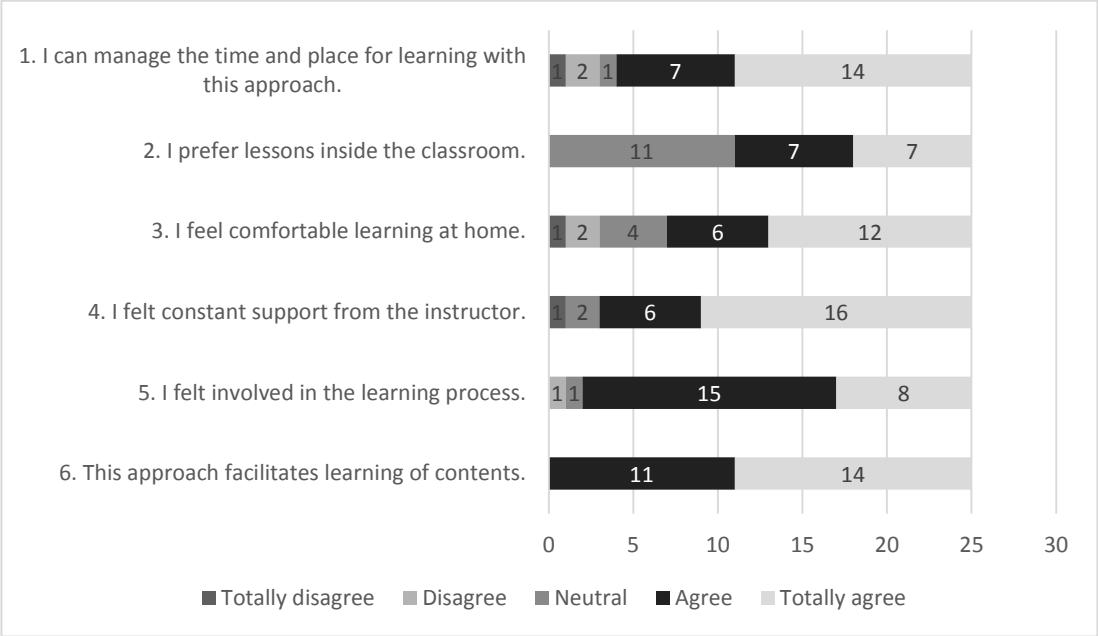

Figure 6. Students' perception on Flipped Learning
Source: Avendaño

In the following paragraphs, item 7, the one that remains from section 1, will be described. In this item, the participants were asked an open-ended question: "Would you like to learn with the same approach in future lessons?", and, additionally, they had to clarify the reason for their answers. There were 22 out of the 25 students who mentioned their desire to continue learning with this methodology. Only 3 students stated that they would not like to be instructed with the same approach in the future.

The students who answered *Yes* specified the following ideas. Most students declared that the Flipped Learning approach helped them improve the way they learn. They were really pleased and surprised. They explained that they could get equipped with knowledge at home and then show how much they learned in the classroom. In addition, some students mentioned that Flipped Learning gives them the advantage of managing their time in a more efficient way. A few students explained that they feel comfortable learning from home, whereas others expressed that the method is different than others in a positive way.

Students who answered *No* wrote the following accounts. Some students stated that they lacked time for watching videos at home. They justified this by explaining that their major required much effort and attention on their part. Therefore, they always had coursework to do from other subjects. Similarly, there was a student who revealed that, for him, it is better to learn inside the classroom than at home. Finally, another student expressed that learning at home is not comfortable at all. This student stated that, at home, there was no interaction with the teacher, and that he preferred to do leisure activities instead of studying.

Table 4 contains an itemized list of the patterns found along with their comments respectively.

Table 4.
Item 7: Would you like to learn with the same approach in future lessons?

Yes	**It improves learning**	• I learn in a better way. • The videos reinforce and clarify the topic. • This method is practical. • I arrived prepared for the lesson. • I know the topic that will be taught. • I can ask about my questions in class. • Videos helped me review for exams and quizzes.
	I can manage time in a better way.	•I can organize my time in a better way. •I learn at my own pace. •I had time to do assignments from other subjects.
	I feel comfortable learning at home.	•I can understand videos better at home. •I can watch the videos as many times as I need.
	It is an interesting method.	•I learn without having to go to class. •This method encourages self-learning. •It is a different method.
No	**I do not have time at home.**	• I do not have much time to watch videos. •My major is very demanding. •I have lots of homework to do.
	I prefer to learn inside the	•It's better to have the complete lesson inside the classroom.

	classroom.	
	I do not feel comfortable learning at home.	•There is no interaction with the teacher or classmates. •I prefer to spend my time in leisure activities.

Source: Avendaño

4.2.1.2. Students' Perceptions on Screencasts. The following results were obtained based on the analysis of items 8 to 11 from the questionnaire (see Appendix E), which dealt directly with the perception of the screencasts watched during the process.

For the close-ended items, 8 to 11, the responses were based on the following scale:

5 *Excellent* 4 *Very good* 3 *Good* 2 *Fair* 1 *Bad*

In general, the participants showed their approval of screencasts. Twenty students described the video elaboration as *Very good* or *Excellent*. It is probable that the software and tools employed in the elaboration of the screencasts were appropriate since they triggered positive reactions in students. In the same manner, a similar number of students (20) considered that the videos were clear to present the grammatical content. This might be because of the pictures, audio, and animation employed in the screencast production. In addition, 14 students stated that there was a *Very good* (10) and *Excellent* (4) relationship between the screencasts and their final post-test scores. It was satisfying to discover that some of the students felt the screencasts were useful since they were the only material employed at home. Moreover, 12 students considered the use of the screencasts to understand the subject as *Excellent.* They not only thought that the screencasts presented the content clearly, but they also specified that the content was understood to a great extent. To conclude, none of the participants considered the videos as *Bad* in items 8 to 11, so it can be inferred that most of them were satisfied with the screencasts. Figure 7 displays the total responses obtained in this section.

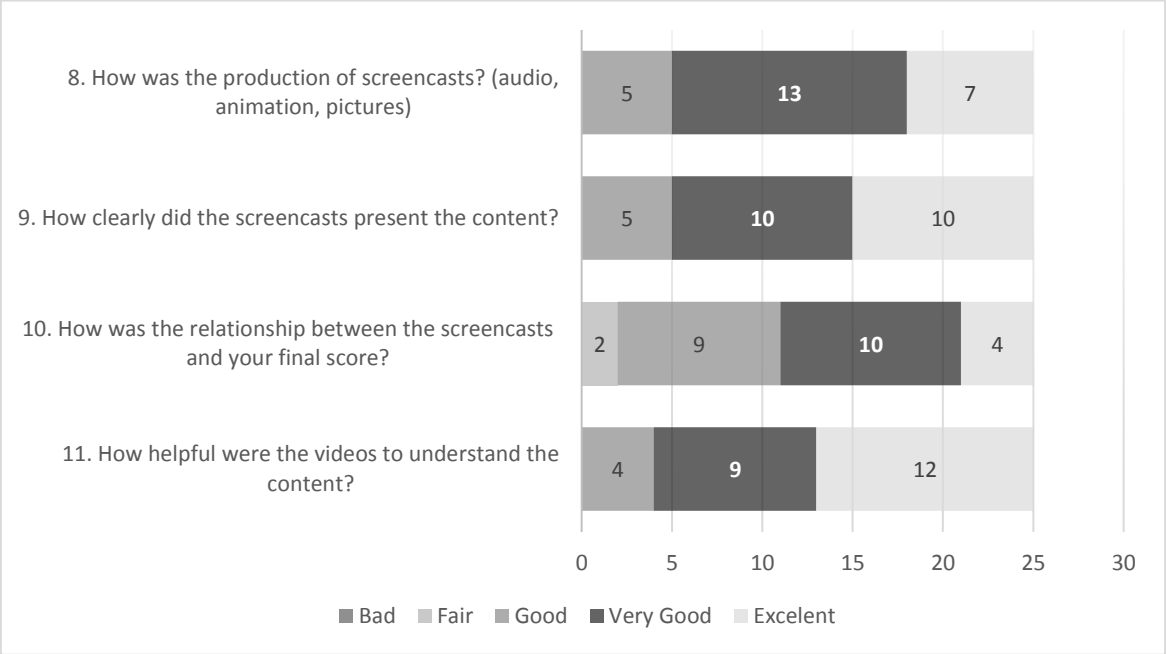

Figure 7. Students' perceptions on screencasts
Source: Avendaño

Additionally, in item 12, participants were asked about the number of times on average they watched each video. It was revealed that they watched the videos between 1 and 5 times with an average of 1.9 views (SD = 1.1). It is possible that almost everybody watched each video twice, which is positive since they had the time to replay the video for a better understanding of the content (see Appendix G for supplementary data regarding the satisfaction questionnaire items).

4.2.1.3. Correlation between the students' perceptions and students' learning outcomes. The main purpose of a correlation analysis is to perceive how strong the relationship between the two variables are. The results revealed that the perceptions about the applied methodology were not related to the scores obtained in the post-test by the students. It appears that students have positive feelings about Flipped Learning, but this was not reflected in their final post-test scores.

Sometimes the post-test scores might fail to establish students' actual knowledge. Different factors, such as sleep deprivation, bad nutrition, additional subjects or amount of

assignments, might affect students at the university level. Chapter V will include additional details about the possible causes for this event.

On the other hand, a direct moderate-high relation was found between the scores obtained by the students in the pre- and the post-tests (Rs = .644; p = 0.001). Table 5 shows additional results found in the correlation analysis.

Table 5.
Correlation between the students' perception of Flipped Learning and their scores

		Pre test	Methodology as facilitator of learning	Involvement in the learning process
Post test	Rho	.644**	.298	-.06
	p	.001	.148	.774
		Feeling constantly supported by the teacher through the lessons	Feeling comfortable learning at home	Preference for classroom learning
Post test	Rho	-0.97	-.207	-.009
	p	0.646	.321	.967
		Better use of time and place for learning	Desire to use the methodology in the future	Perception of videos for comprehension
Post test	Rho	-0.24	-0.038	0.13
	p	0.247	0.857	0.537
		Perception of the relationship between video views and post-test scores	Clarity in presenting the grammatical content	Video quality
Post test	Rho	-0.161	-0.166	0.275
	p	0.443	0.426	0.183
		Number of times that videos were watched		
Post test	Rho	-0.232		
	p	0.264		

*Note: * Significant correlation*
Source: Avendaño

4.2.2. Students' Journals. In the students' journals, the participants were told to comment about the process as a whole; however, most of their insights were directed towards the screencasts and grammar instruction. The journals were analyzed in terms of positive and

negative comments. Something surprising was that the amount of positive comments surpassed greatly the amount of negative ones (see Appendix I for a journal entry sample).

4.2.2.1. Positive comments. The following categories concerning positive comments were discovered:

- Screencast production
- Screencast effectiveness
- Flipped Learning process
- Grammar instruction

In the next paragraphs, each category will be described according to the primary findings.

4.2.2.1.1. Screencast production. The students expressed several ideas about the production of the screencasts. Some comments were related to the background music in each video. The participants explained that the melody was relaxing and helped them to focus their attention on the video. Other comments had to do with the pictures employed in the screencasts. These students expressed that the pictures complemented the grammar presentation since they helped them to understand the content in a more suitable manner. They also asserted that the examples were clearer when these were accompanied by a related image. There was a group of students who were enthusiastic about the audio, colors, and animation features. These students reported that the audio was of great quality because they could listen to the instructor clearly. They affirmed that the instructor's speech was slow and modulated, which facilitated the comprehension of the content along with the correct pronunciation and intonation. In addition, the students appreciated the colors since these helped them discern the grammar structures displayed on the screen. As for animation, they

enjoyed how the objects such as pictures, shapes or text appeared on the screen, making the video more attractive.

Highlights from the journal comments:

"very good the video because you speak slowly and is heard all intonations"

Student 21

"I love the music that you used in this video. I did feel more relaxed while I was watching the video."

"I like it. I love the colors. I like the music."

Student 18

"The video is good, because it has a good audio, images and text are very clear."

Student 22

4.2.2.1.2. Screencast effectiveness. There was a great number of positive comments regarding the effectiveness of the screencasts. Most of the students employed words like "good", "great", "excellent" or "amazing" to describe them. The students labeled the videos as "explanatory" since they acknowledged that the presentation of the grammar point was clear and that they did not have any questions about it. In some comments, the participants pointed out that the videos were easy to understand. They affirmed that the screencasts were clear because of their production and rich information. Other positive comments were related to the idea that the video was interesting. The participants stated that their attention was focused on the video all the time. Indeed, some of them remarked that each video was better than the previous one, which was something satisfactory in terms of the screencast effectiveness. There were other comments in which participants expressed that the videos

facilitated learning. They stated that the screencasts were of great help to understand each topic, and they employed words like "educational" or "didactic" to describe them.

Highlights from the journal comments:

"goodnight teacher, the video is better than the last [one], congratulations"

Student 25

"I think that this video is very educative and didactic, it´s perfect to my learning."

Student 9

"This video is a good tool for learn English and also is a fun way to study."

Student 15

"Thanks for uploading this video teacher. Learned and clarify my doubts. Good job."

Student 14

"the video is very interactive by images and examples used. Thus it is understood much better"

Student 6

4.2.2.1.3. Flipped Learning process. Apparently, the students were more focused on the videos than the Flipped Learning process while writing their journal entries, which is why there were a few comments in this category. The students expressed that the videos and the classroom activities complemented each other. It seems that they were aware that both settings, home and classroom, were important during the learning process. Moreover, students conveyed that watching videos is a good way to employ time at home. It is likely that they appreciate the idea that one can learn content without a teacher or a classroom. Finally, some comments were related to the idea that the videos were a good way to get ready

for the classroom activities. Some students claimed that they were successful in the activities because they had watched the videos previously. They already had an idea of what the classroom activities would be, which made them confident about the forthcoming lesson.

Highlights from the journal comments:

"This is a better way to use the time"

Student 5

"I hope learn more about it in class. Good video!"

Student 9

"Teacher good night, with video I can enhance the class of thursday."

Student 25

"I understood everything, and I hope to apply in the class"

Student 1

4.2.2.1.4. Grammar instruction. There were several comments related to this category. In some comments, students affirmed that they understood the grammar topic presented in the video. They might have written that because, as stated earlier, they were satisfied with the production of the screencasts. Some participants were very sincere and stated that they had already learned the topic in high school before. However, they concluded clarifying that they were still able to learn something additional or new, and they were grateful for that. Many participants asserted that the grammar explanations were clear, and they did not have many questions after watching the videos. In fact, a few of them demonstrated how much they understood the topic by paraphrasing some of the explanations. Furthermore, the participants expressed that the illustrations were appropriate to comprehend the grammar topics, and

some students claimed that the number of the examples was pertinent. There were other comments connected to the idea “I cleared up my questions on this topic.” As stated before, some participants admitted that they had already studied the topic in high school, but it was pleasant to know that the questions they had about some grammar topics were finally answered.

Highlights from the journal comments:

“I never understood the demonstratives but with this video I understood the topic. Thank you, teacher.”

Student 14

“This video is interesting because I learned that a subject pronoun fit before the verb and the object pronoun fit after the verb.”

Student 10

“I understood about the use of the adverbs of frecuency, and I clarified all my doubts about this theme.”

Student 9

“This Topic I think that is very easy, and now, it is much clearer with your explanation. Thank you so much teacher!”

Student 19

“I really liked the video because before I got confused by using those words [much and many]”

Student 6

“The video had good quality and reinforced the themes already known to me”

Student 20

All of these positive comments were valuable as source of encouragement for the instructor to continue the intervention. Table 6 depicts the complete list of positive comments found during the analysis of the students' journals.

Table 6.
Students' journals: Positive comments

Category	Comments
Video production	*I like the background music.* *The pictures are suitable.* *The audio is clear.* *I like the colors.* *I like the animation.* *The narration is slow.* *The video is short.* *The fonts are clear.*
Video effectiveness	*It is good/great/excellent/amazing.* *It is explanatory.* *It is easy to understand.* *It is interesting.* *It facilitates learning.* *It helps me to expand my vocabulary.*
Flipped Learning process	*It will complement knowledge in the classroom.* *It is a better way to use time.* *I feel ready for the classroom activities.* *The online environment is comfortable.* *It is a good way to learn.* *I can practice at any time.* *It is a fun way to learn.* *I will clarify my questions in class.*
Grammar instruction	*I understood the grammar topic.* *I learned something new.*

	The explanation was clear.
	The examples are good.
	I answered my questions on this topic.
	This topic is useful in everyday situations.

Source: Avendaño

4.2.2.2. Negative Comments. The negative comments found in the students' journals were sorted out into the following categories:

- Screencast production
- Grammar instruction

Something encouraging was that there was a reduced number of negative comments compared to the large number of positive ones. Another satisfactory result was that there were not any negative comments regarding the video effectiveness and the Flipped Learning process. In the following paragraphs, each category will be explained.

4.2.2.2.1. Screencast production. As for negative comments regarding the screencast production, some participants stated that they could not see the details in the pictures because they were small. In addition, as explained in Chapter III, the average length of the videos was five minutes. However, the screencasts were too short for certain participants. Other students described the audio as "bad" since they thought that the volume was not high enough to listen to the narration. Judging by the low number of comments, it might be inferred that these participants might not have had suitable speakers at home. There were a few comments regarding the position of pictures and the colors used. These students complained that the pictures were too close to the text and that some images were placed on top of another. A couple of participants stated that some of the colors used in the videos were distracting and kept them from focusing on it.

Highlights from the journal comments:

"the video is interesting, but it was more fun with a musical background [background music was added to the videos afterwards]"

Student 25

"the images aren't very together to the text because loses attention during video."

Student 21

"the video is good and explanatory but *short*[emphasis added]"

"the letters [fonts] indicating the subject and verb are Small"

Student 5

"the microphone sound quality could be better"

Student 24

"the images are very large and causes deconcentration [lack of concentration]"

"I think that the video has much colours, and It distracts me"

Student 21

"the pictures were small because I couldn't see the picture content."

Student 7

4.2.2.2.2. Grammar instruction. Regarding this category, participants complained that the number of examples was scarce, and they expressed that more illustrations would help them understand the rules without difficulty. Because of these observations, some examples were added to the screencasts; however, the quantity of examples was purposely limited to keep the videos short and avoid fatigue in the participants. Certain students declared that they needed further explanations. Apparently, for them, the videos needed to include more details

about the grammar points. As stated previously, the screencasts were aimed at being brief and concise; that is why they focused on the most significant rules only, avoiding much detail. Finally, a few students declared that some topics were not fully understood. They alleged that they had some difficulty because some of the words employed in the examples were unknown to them. Likewise, the participants expressed that they had learned the topic in previous courses, so they did not learn something new.

Highlights from the journal comments:

"it would be better if you put the meaning of the complicated words that you used in the video."

Student 18

"This topic isn't very difficult because I learned Adverbs of frecuency at the High School"

Student 17

"the video is greit [great], but *need more examples*[emphasis added],"

Student 16

These negative comments were of great value for the instructor since they were taken into consideration during the screencast production and the follow-up classroom activities. There were some negative comments that were not mentioned above, and the complete list is shown in Table 7.

Table 7.
Students' journals: Negative comments

Category	Comment
Video production	*The pictures are small.* *The video is short.* *The audio is bad.* *The pictures are misaligned.* *The colors are not appropriate.* *The fonts are small.* *It needs more animation.* *The pictures are large.* *The video is long.* *The pictures are small.*
Grammar instruction	*I need more examples.* *I need further explanations.* *I didn't understand the topic completely.* *I've already studied this topic.*

Source: Avendaño

Chapter V: Discussion

During this chapter, the results will be interpreted regarding the specific objectives posed in Chapter I. Each specific objective will be explained through arguments based on the major findings. Furthermore, the results will be compared and contrasted with previous studies in an attempt to explain how the results fit in with the existing literature.

5.1. Students' Grammar Learning Experience through Flipped Learning

Evaluating students' grammar performance through Flipped Learning was the first specific objective of this research. In essence, it was expected that the students could learn grammar structures outside the classroom by watching screencasts, and then, in the classroom, they would successfully apply what they learned previously. In the following paragraphs, it will be discussed to what extent Flipped Learning can improve grammar knowledge in students.

The participants started the course with an average score of 42.24 points out of 60. This fact was somewhat discouraging since it implied that the students already had some knowledge of the topics that were to be instructed. Nonetheless, the research continued in search of discovering whether the students would enhance their grammar knowledge and to what extent. Hence, at the end of the course, it was remarkable that the students did increase their scores by earning a mean of 53.48 points out of 60. They improved their average score by 11.24 points, and the statistical analysis revealed that this gain was significant. Therefore, the students improved their grammar performance.

It is evident that the students enhanced their grammar knowledge after the intervention; however, it was also necessary to examine the scores by grammar topic to establish definite results. On the one hand, significant changes were found in 9 of the 12 topics instructed after analyzing the individual scores. In addition, more participants had positive changes (162) than negative ones (39). On the other hand, there were some caveats

in the analysis of individual scores per grammar structure. There were no significant changes in students' scores concerning the topics: "present of be", "frequency adverbs" and "simple past." Overall, this partial analysis of scores by grammar topic provides evidence that Flipped Learning helped learners to develop their grammar skills on certain topics.

The fact that there were no significant changes in three grammar structures makes us reflect about the possible constraints that might have prevented students from learning them. One possible explanation to interpret the lack of change in students' scores is the process known as Fossilization (Selinker, 1972). It is likely that some students might have learned to use incorrect structures in English from the beginning, and, despite the teacher's corrections, they might still have difficulties producing language properly. It is clear that some students know how to use correct structures, but when they are producing the language, they tend to make the same mistakes. For instance, they have some problems regarding the use of the *-s* in the third person singular form of the present simple tense or the verb form that follows the verb *can*.

As for limitations when collecting the students' scores, the context of the study could have been a restraint for the students and might have slightly altered the results because of the following reasons. First, the post-test was applied at the end of the semester when the participants were worn out. As a result, they were not focused enough when it was time for the evaluation. Second, their majors demanded a heavy workload, keeping them from focusing on the course exclusively. Third, the participants were experiencing Flipped Learning for the first time, and they might have needed a longer period of adaptation to the method. Fourth, some students might have gotten confused since they were exposed to several grammar topics. Lastly, although it is stated that these conditions might have influenced the participants scores, it was valuable to find out whether a Flipped Learning approach works in this context, which appears to be common at the University of Cuenca.

To conclude with this section, there is some additional data obtained from a group outside this research design. This information corresponds to the average post-test scores of a similar group which received grammar instruction with a traditional method. This group was referred to as the "Traditional Group", whereas the research group was named the "Flipped Group." The results displayed a difference of 10.85 points between the post-test scores of the two groups, and the participants from the Flipped Group scored higher. After a statistical analysis, this difference was discovered to be significant. Subsequently, this might be a sign that Flipped Learning works in terms of enhancing grammar performance in students compared to other methods. As stated in Chapter IV, this additional information was a product of curiosity; however, such data turned out to be significant and deserve to be mentioned in this discussion.

After having discussed the results concerning grammar performance, it is opportune to compare and contrast the present study with similar ones in current literature.

Similar to this research project, there are two studies that have tried to estimate the effectiveness of Flipped Learning on grammar acquisition based on the use of a pre- and a post-test with a statistical significance of $p<0.05$. These studies will be described in the subsequent paragraphs.

The first study was done by Webb and Doman (2016). The results revealed that the students who were exposed to Flipped Learning improved their grammar skills with a difference of 5.92 points between the pre- and post-test. This change turned out to be statistically significant. Such results reflect the ones in the current study; however, Webb and Doman (2016) only analyzed the mean of the total scores. The present study goes beyond the analysis of the overall grades. Consequently, the scores were also analyzed by grammar topic, getting significant results in most of them. Evaluating the scores by splitting them into topics

proved to be advantageous in terms of spotting the grammar structures that students learned better with the Flipped Learning approach.

In another study, Kang (2015) also describes important changes in the participants' grammar skills through Flipped Learning. The results showed that the students had a meaningful change in grammar knowledge after the intervention. They earned an average score of 4.17 in the pre-test and 4.96 in the post-test. By employing the Wilcoxon signed-rank test, Kang showed that the outcomes turned out to be significant, getting a result of p=.0011 (＜.05). On the contrary, in the present research study, the outcomes were positive but not totally significant. Changes in 3 topics out of 12 were not significant. Considering this, it might be stated that results should be examined thoroughly since the deeper the analysis of the data is, the more reliable the outcomes are. Like in the Webb and Doman (2016) study, one of the constraints in Kang's research is that only an overall analysis of scores was carried out.

There are some limitations in the present study compared to the ones already presented. One restraint is the lack of a control group to better interpret results. There is information obtained from the "Traditional Group", but it is limited; thus, this group cannot be considered as a control one. Another restriction was the number of participants. In this study, there were 25 students, whereas the other studies were carried out with 30 individuals or more. Finally, it is possible that the results in all the studies may have been affected by the context and culture of the participants, who were from different countries.

5.2. Students' Perceptions on Flipped Learning

In addition to grammar performance, the second specific objective was to analyze the students' perceptions on the applied methodology. The efficacy of a method should not only be analyzed by scores, but it is also important to consider the participants' opinions as well.

In this regard, a satisfaction questionnaire and journals were used to gather opinions and comments from the students.

In general, students' perceptions regarding Flipped Learning turned out to be positive since all answers in the satisfaction questionnaire had a tendency towards "agree" or "totally agree." The participants were pleased with the methodology since most of them felt engaged in their learning process. A great number of students not only felt engaged but claimed that the method helped them learn new content. And moreover, some students felt constant support by the instructor during the classroom instruction. What is more, through question 7, it was discovered that 22 participants out of the 25 manifested their desire to learn with the applied methodology in the future.

As for negative perceptions, there were some participants who were skeptical towards the applied methodology. Fourteen students expressed that they preferred the complete lesson inside the classroom. However, it is interesting that 18 stated that they feel comfortable learning at home.

It is reasonable to believe that although students feel comfortable learning at home, they still prefer to learn inside the classroom. It may be due to the fact that the participants were Architecture students who were overwhelmed with assignments from other subjects at home. Another possibility is that students might not be accustomed to new teaching approaches such as Flipped Learning. In future studies, it might be necessary to inquire not only about the resources that the students have available at home but also how appropriate their surrounding is for learning.

A possible limitation in the students' perceptions is that occasionally students do not give an honest answer. Sometimes they do not want to hurt the instructor's feelings and answer what they think the teacher wants to hear. In consideration of this, the fact that fourteen participants gave negative comments makes one think that the answers were in part

true. In some cases, qualitative results might be influenced by the participants feelings, but not all the responses are necessarily artificial. Additionally, the survey was anonymous and the instructor invited the students to write what they felt confidentially.

Moreover, by examining the journal entries, it was also confirmed that a high number of participants were in favor of the applied methodology. The data displayed that students made 328 positive comments on the screencast elaboration and effectiveness, the Flipped Learning process, and grammar instruction; whereas, there were 48 negative comments only on screencasts elaboration and grammar instruction. These results are added to the list to affirm that participants have a positive perception about Flipped Learning.

An important issue was that some students changed their behavior after the Flipped Learning process. Sometimes in the classroom, students do not dare to ask questions because they do not comprehend the topic very well. However, after watching videos at any time, place, or pace, they felt confident in asking questions about something that was not clear in the videos. Consequently, it was detected that students might get more involved in a lesson through the implementation of Flipped Learning.

Regarding students' perceptions, some studies already published have obtained similar results to the ones in this study. In the same manner, they have employed a questionnaire to examine students' insights on Flipped Learning, and the information obtained has been used to uphold that students have optimistic feelings towards this approach in an educational setting.

In a study performed by Webb, Doman, & Pusey (2014), the researchers concluded that students had positive perceptions of Flipped Learning. Nonetheless, comparable to the current study, the participants expressed that learning in an online environment was not satisfactory for them. It is noteworthy that although the participants in Webb, Doman, & Pusey's study were confortable with the method, 88.7 percent expressed that they prefered

the in-class instruction. This implies that the proposed methodology is really positive for students, however, learning from home is challenging for them.

Another study undertaken by Chen Hsieh, Wen-Chi, and Marek (2014) found that Flipped Learning is a source of motivation and engagement. Similar to the results in the current study, Chen Hsieh et al. (2014) have concluded that students prefer the traditional lessons instead of the flipped ones. They hypothesize that this issue is due to the fact that the Flipped Learning implementation requires more effort from the student at home than in a traditional class. This finding also supports the idea that students do not like to take much responsibility in the learning process since they like to place all the responsibility on the teacher. Different from the current research, the motivation factor was studied in the Chen Hsieh et al. (2014) study, and this has brought up a new topic "motivation". How motivated are the students in the learning process? How motivated are the students to learn English grammar? For future research, it might be valuable to explore the responsibility and motivation factors within the Flipped Learning process.

5.3. Screencasts and Grammar Acquisition

The third specific objective was to determine to what extent screencasts help students acquire grammar. In a Flipped Learning approach, the instruction can be delivered at home in several ways. However, in this study the only source of learning was the screencasts. Hence, the interest arises to interpret how much the screencasts helped students learn grammar contents.

In the following paragraphs, the effectiveness of screencasts will be determined in terms of the data obtained from the satisfaction questionnaire, students' journals, and a correlation analysis between the students' post-test scores and the questionnaire items.

The satisfaction questionnaire revealed that students described screencasts as "very good" and "excellent." In fact, there were many journal comments to support this assertion.

Almost all the students employed positive adjectives such as “clear,” “good,” “awesome” or “excellent” to describe the videos. Thus, it is evident that the screencasts were favorable to deliver grammar instruction and that the instructional strategies for elaborating screencasts suggested by Sugar, Brown, & Luterbach (2010) worked as expected.

Participants were grateful since they claimed that the videos were appropriate for understanding new or partially learned content. Some of them declared that they were learning some topics for the first time, while others maintained that they could finally understand a grammar point they never picked up before. Similar feelings were expressed by the participants in the study by Morris and Chikwa (2014).

Something that was praised most by the students was the audio, specifically the narration element in the screencasts. Students stated that the teacher’s voice was clear and slow enough to follow the video, staying focused on the content. This finding relates to the one in the Mohamad, Samsudin, Hassan, and Sidek (2011) study, in which they affirm that students’ performance is better when the screencasts are accompanied by narration.

Something encouraging was that none of the students considered the videos as bad or fair. And it also applies to all the previous studies examined in this research project. Therefore, it might be expressed that students have positive opinions about the insertion of screencasts into the lessons.

In an attempt to discern to what extent screencasts help students acquire grammar knowledge, a correlation analysis was done between the students’ post-test scores and the satisfaction questionnaire items. The results were not favorable since it turned out to be that the participants support the method, but this was not reflected in their grades. In other words, it appears to be that the screencasts did not help students to get a good score in the post-test.

There are some possible reasons that could clarify the lack of relationship between the students’ final scores and their perceptions. One possible explanation for this is that the

participants liked the method, but they might not have liked studying English. This conjecture cannot be proven since the students were never asked about their motivation to learn English at any point during the research. Second, the method was favorable for the participants, yet the conditions which surrounded them were not the best ones. Most students expressed how demanding their major was, which kept them busy. Consequently, they were not able to focus on the lessons to the fullest. Finally, the post-test scores do not reflect the students' complete knowledge of grammar. This knowledge could also be reflected in the four language skills (listening, reading, writing, and speaking), which were not examined during this study.

Chapter VI: Conclusions and Recommendations

6.1. Conclusions

The Flipped Learning approach is a model that has gained importance over the last few years, partly because it relates to a trendy topic which is technology, and partly because students have expressed positive comments towards it. Students at the university level liked the idea of having to watch videos at home and then coming into the classroom to practice and apply what was previously learned through the video.

Students are active users of technology these days. They use tablets and smartphones on a daily basis to access applications or multimedia material. Therefore, if classrooms provide a passive model in which they just listen and take notes from a lecture, they might become discouraged and lose interest in the subject. After applying this Flipped Learning process, it was evidenced that students became active learners who reviewed the material at home and engaged in hands-on activities in the classroom.

With the introduction of the Flipped Learning approach, some benefits have been found. First, students took advantage of class time since it was dedicated to practice and application of the targeted grammatical point. They also became inquirers as they asked lots of questions about the information in the screencasts. Second, the instructor also took advantage of class time. The teacher did not have to deliver a long lecture nor repeat it completely for clarification. The screencasts did that job. Third, the screencasts were designed in accordance with the level and needs of the students. In this way, most students got interested in the videos and even watched them repeatedly. Finally, the students could easily adapt to this new model since technological tools are encouraging for them and respond to their current learning needs.

After having discussed all the outcomes in both this research and related studies, it is evident that Flipped Learning has the potential to improve grammar performance. However,

the instruction must be delivered considering probable limitations observed in this research study and the participants' context. In addition, it is also known that almost all the participants had a positive perception of Flipped Learning because, according to them, it promotes learning, engagement, and teacher support in an EFL class.

Some participants are rather uncomfortable with the idea of learning at home. Some of them might have difficulty concentrating, whereas others might not be willing to take responsibility for their learning.

Using screencasts in the learning process is valuable for students and teachers. As for students, screencasts demonstrated that they are an effective tool to attract their attention and deliver grammar instruction. Students like to watch screencasts and learn content at the same time. They are satisfied with the screencasts when these are well-elaborated and explanatory. This was confirmed by the high number of positive comments from the students, which vastly outnumbered the negative ones. As for teachers, from my experience, screencasts turned out to be an accessible tool to elaborate. Each video was recorded and edited in two hours, and some teachers might become skilled in making them if these are produced regularly.

Grammar instruction was delivered constructively through screencasts in a Flipped Learning environment. Screencasts were a helpful instrument to keep students focused on the explanations being delivered. Also, while watching the screencasts, students could write down their questions and ask the teacher later for a better understanding of the grammatical point.

Lastly, there was not a correlation between the students' final scores and the screencasts. Some of the final low scores might have been related to the limitations in the students' context stated earlier in Chapter V, these might include lack of sleep, bad nutrition, additional subjects, amount of assignments, motivation, or fossilization errors. Considering

this, research on the previous limitations should be done to determine to what extent these restraints can influence the students' performance on grammar.

6.2. Recommendations

There are some suggestions that have arisen based on the research design and the screencast production. Also, recommendations for further research will be made when appropriate.

6.2.1. Recommendations on the research design

To ensure that a Flipped Learning process can be implemented successfully, teachers should analyze the students' setting at home. Students should not only be asked about the technological devices and resources, but also it should be inquired whether their home environment is suitable for learning. This would make it possible for the teacher to provide a solution to the identified limitations prior to the implementation.

Classroom activities should be considered when evaluating grammar performance through Flipped Learning. Sometimes a test cannot reflect the students' complete knowledge. For future research, the in-class activities should also be taken into consideration to better interpret results.

The results could have been different if the students had been totally focused on the lessons, leaving other subjects aside. A suggestion for future research is that this study should be done with a group of students who are taking English as the only subject to compare how different the outcomes would be. It is possible that the availability of time and energy of the participants could make them more committed and focused on the lessons.

Students' journals were more directed towards screencasts than Flipped Learning. For future research, a different journal procedure should be employed to gather additional data on the participants' perceptions.

A suggestion that emerged from the limitations described earlier is the use of a control group. Having a control group could provide additional evidence to triangulate the results. This was evidenced when the results from the Flipped group were compared to the ones of the Traditional one.

With regard to negative comments, it would be desirable to carry out research to indagate why students prefer to learn in the classroom as opposed to doing it at home. It might be that students need to adapt to the changes in today's world, which are gradually being introduced in the field of education; or it might be that they do not like the idea of learning at home since it puts a lot of responsibility on them. Further studies could help clarify this issue.

Research on Flipped Learning relating to implicit grammar is yet to be researched. As aforementioned in the previous chapter, students have a passive knowledge of grammar that might be reflected by language. It would be interesting to know to what extent can Flipped Learning improve the implicit grammar in the four language skills, such as reading, writing, listening or speaking.

Research on fossilization errors regarding grammar instruction should be undertaken. It is conjectured that students did not improve their knowledge on some topics due to fossilization errors they bring with them from high school.

6.2.2. Recommendations on screencast production

Screencasts turned out to be appealing for the students because they were produced according to some specifications provided in the existing literature or detected along with the implementation. First, screencasts should be elaborated using a language in accordance with the level of the student. Otherwise, students might find the videos difficult to understand and lose interest. Second, the video must be of good quality. They should be filmed using

daylight, and narration should be recorded in a quiet environment without background interference, such as noise produced by people, animals, or machines. Third, screencasts are more attractive when they are edited with specialized software. The students made positive comments on the colors, lines, shapes, pictures and animation of each video.

Screencasts should be delivered and stored in a way that students are able to access them later. For example, when students are preparing for a test, they might turn to the previous screencasts to refresh their memory. Also, they should be uploaded permanently to an educational platform or a public domain, so that students have them for future reference and for sharing with other students in need. In this way, teachers might expand their teaching outside the classroom and beyond through the Internet.

Participants watched each video on an average of 1.9 times, and on that account, it is presumed that most students watched the video twice. The results may have been different if the participants had watched the videos more times. For future research, there should be a study on the amount of video views and grammar performance to ascertain its effect in the participants' knowledge.

Final thoughts:

The results of this research study have contributed to understanding how to implement the Flipped Learning Approach in the Ecuadorian setting.

One benefit of this study was to discover that the students were enthusiastic about learning grammar through this approach which encourages to expand research on Flipped Learning towards other language areas.

Another benefit found is that Flipped Learning made it possible for most university students to learn grammar through screencasts. There is still a debate about which way

grammar should be instructed, implicit or explicit. However, satisfying results were obtained by explicit grammar instruction.

In addition, this research has helped notice the possible limitations that might affect students while learning grammar. If the recommendations suggested above are followed, some restraints may be overcome in future replicas.

To conclude, much research remains to be conducted in the area of Flipped Learning in connection with English grammar instruction, and it is expected that this approach will continue to develop along with other new trends in teaching.

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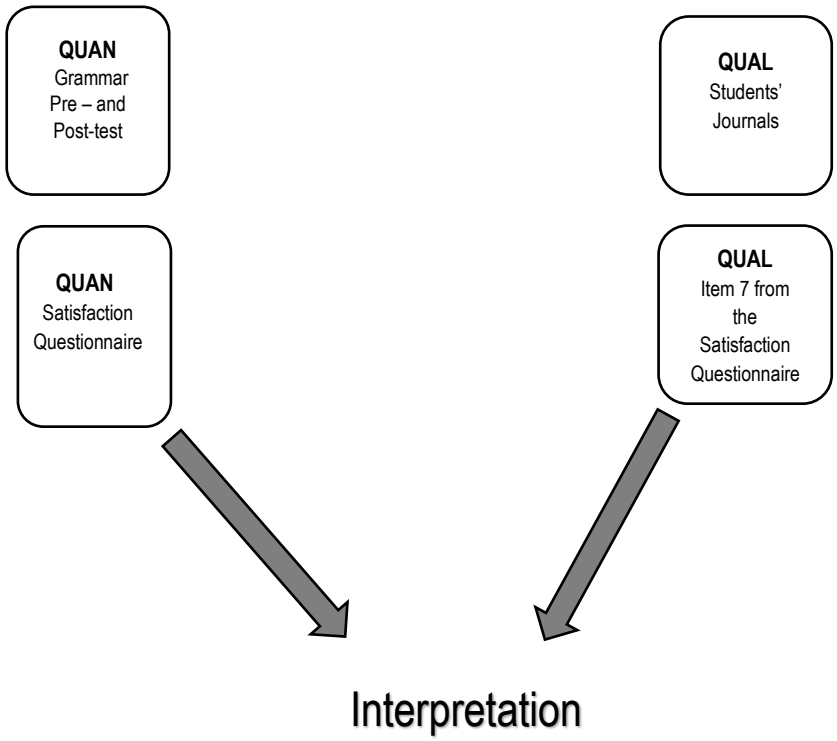
Appendices

Appendix A: Research design

Convergent Parallel Mixed-Methods



Appendix B: Participant consent form

Participación Voluntaria en el Proyecto de Investigación

Investigador: Lcdo. Diego Avendaño **Firma:** _____

Para cualquier duda acerca del proceso investigativo, llame al teléfono: 07 – 4085701

Nombre del proyecto de investigación:

"Flipped Learning: The effect of screencasts on Grammar acquisition in the EFL classroom."

Yo, Diego Avendaño Saquisilí, estudiante del programa de maestría en "Lengua Inglesa y Lingüística Aplicada a la enseñanza del inglés como Lengua Extranjera", de la Universidad de Cuenca, previo a la obtención del título de Máster debo realizar mi proyecto de investigación, para lo que me propongo estudiar el impacto que podrá tener el uso de la tecnología en el aprendizaje del inglés como lengua extranjera, en estudiantes de segundo nivel.

El objetivo de esta investigación es el ayudar a los estudiantes a aprender Inglés a través del uso de la tecnología, al tiempo que asisten a clases regulares.

Esta investigación ha sido previamente aceptada por las autoridades de la Universidad de Cuenca.

Se garantiza que sus datos no podrán ser vistos o utilizados por otras personas ajenas al estudio ni tampoco para propósitos diferentes a los que establece este documento que firma.

Usted puede retirarse de esta investigación cuando usted lo crea conveniente sin que esto repercuta en la atención que recibe en el aula de clases. Además, no perderá ningún beneficio que pudiera obtener.

Su participación es libre y voluntaria. Por lo tanto, en ningún momento debe sentirse presionado para colaborar en las investigaciones. Si está de acuerdo en colaborar en la investigación firme este consentimiento escrito.

Participante: _____ **Fecha:** _____

Firma: _____

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Appendix C: Pre- and Post-test

Pre-test: Grammar English Level I

/60

Students Code: _____ **Age:** _____ **sex:** _____

Date: _____

A. Present tense of be: Complete the sentences. Use contractions where possible. /5

Example: They'*re* from New York.

1. The food isn't Chinese. _____'s Japanese.
2. "Are they from Asia?" "No, they _____."
3. _____ he a student?
4. "Are _____ in our class?" "No, I'm not."
5. "Is Maria Spanish?" "Yes, _____ is."

B. Simple present tense: Complete the sentences with the correct form of the verb parentheses. /5

Example: She *reads* (read) the newspaper every day.

1. We _____ (not have) a car.
2. The restaurant _____ (close) at 10 p.m.
3. Luis _____ (not like) tea.
4. They _____ (work) in an office.
5. I _____ (speak) German and English.

C. Present Continuous: Make present continuous sentences and questions (positive and negative). Use contractions where possible. /5

Example: Hannah / study / in her bedroom *Hannah's studying in her bedroom.*

1 what / you / do / at the moment ?
_____.

2 we / run / because it's late
_____.

3 why / Dave and his wife / argue ?
_____.

4 they / not wait / for a taxi
_____.

5 you / use / this computer ?
_____.

D. Modals: can/can´t: <u>Underline</u> the correct word or phrase. /5

Example: I'm sorry. You **can** / **<u>can't</u>** park here.

1 **Do you can** / **Can you** come to the movies tonight?
2 She **no cannot / can't** cook very well.
3 "Can you play tennis?" "Yes, I **can / can play**."
4 **They can / Can they** do the exercises?
5 He can't **speak / speaks** Italian.

E. Articles: a/an/the: Complete the sentences with a, an, the. /5

Example: I read *<u>an</u>* interesting book last week.

1 Is Mike _____ good teacher?
2 Emily ate all of _____ cookies I bought.
3 There was _____ amazing beach in front of our hotel.
4 Russell was _____ best dancer in the competition.
5 Dina doesn't have _____ job.

F. Possessive adjectives: Complete the sentences with the correct word. /5

Example: This is my father. *<u>His</u>* name is James.
His Her He

1 We're students. _____ teacher is American.
Their Our Your

2 Marjorie, please close _____ book.
you your you're

3 It's a hotel. _____ name is The London Hotel.
His Her Its

4 They're teachers. _____ names are Paul and Jenny.
His Her Their

5 Franco's Italian, but _____ mother is Scottish.
his her she

G. Object pronouns: Complete the sentences with me, you, him, her, etc. /5

Example: That's my iPod! Give it to <u>me.</u>

1 Are they German? Can you ask _____?
2 He likes Maria, but he doesn't love _____.
3 We don't speak Japanese. They can't understand _____ .
4 Can you help _____? I can't do my homework.
5 We're friends. You like me and I like _____.

H. Frequency adverbs/Time expressions: <u>Underline</u> the correct word. /5

Example: I **always / <u>usually</u>** start work at 8 a.m., but on Mondays I start at 9 a.m.

1 "How many **weeks / months** are there in a year?" "Twelve."

2 They have tennis lessons **twice / four** times a week.

3 We don't work every **day / week**. On Saturday and Sunday we relax.

4 I **never / always** drink tea because I don't like it.

5 Sandra hardly **never / ever** cleans her room.

I. Prepositions of time and place: Complete the sentences with the correct preposition. /5

Example: We have English lessons in the evening.

1) John goes _____ work by car.

2) They have lunch _____ half past one.

3) Richard works _____ a car factory.

4) The party is _____ Saturday.

5) I often go shopping _____ the weekend.

J. There is / there are: Use the words to write positive (+) and negative (–) sentences and questions (?) with there is / there are. Add some, any, a where necessary. /5

Example: a store in the town (?)

<u>Is there a store in the town?</u>

1) a swimming pool in the yard (+)

_____

2) ghosts in the house (–)

_____

3) cupboards in the kitchen (?)

_____

4) a shower in the bathroom (?)

_____

5) a television in the bedroom (–)

_____

K. Quantifiers Underline the correct word or phrase. /5

Example: She eats much / a lot of cookies. She loves them.

1) Put a little / a few pepper in the soup.
2) "How much water do you drink?" "A lot of / A lot."
3) I didn't eat no / any cake. I wasn't hungry.
4) How much / many cups of coffee do you drink each day?
5) We need some sugar. There's any / none in the cupboard.

L. Simple past: Complete the sentences with the correct word or phrase. /5

Example: We went to Rome last week.
were went go

1) "Did they enjoy the party?" "Yes, they _____."
   a) enjoyed b) did enjoy c) did
2) Yesterday _____ Saturday. Today is Sunday.
   a) didn't b) didn't was c) was
3) I _____ a great movie last night.
   a) saw b)'m seeing c) see
4) _____ the football game yesterday?
   a) You watched b) Did you watch c) Watched you
5) Sally _____ a book on the train.
   a) readed b) read c) red

Adapted from:

Oxenden, C., Latham-Koenig, C., & Seligson, P. (2008). American English File 1 (Segunda ed.). USA: Oxford University Press.

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Post-test: Grammar English Level I

/60

Students Code: _____ **Age:** _____ **sex:** _____

Date: _____

A. Present tense of be: Complete the sentences. Use contractions where possible.

/5

Example: We *'re* from London.

1. "Is Anna English?" "Yes, _____ is."
2. _____ Magda your teacher?
3. We _____ Portuguese. We're Brazilian.
4. My name's Deniz. I _____ from Turkey.
5. The food isn't Thai. _____ 's Chinese.

B. Simple present tense: Complete the sentences with the correct form of the verb in parentheses.

/5

Example: She *reads* (read) the newspaper every day.

1. Tony _____ (study) at the university.
2. It _____ (rain) a lot in Ireland.
3. You _____ (not play) computer games.
4. They _____ (work) in a factory.
5. I _____ (speak) Italian and French.

C. Present Continuous: Make present continuous sentences and questions (positive and negative). Use contractions where possible.

/5

Example: Alan / work / at home today *Alan's working at home today.*

1 why / Amy and her husband / argue ?
_____.

2 I / not wear / a sweater today
_____.

3 you / use / this dictionary ?
_____.

4 Christine / get dressed ?
_____.

5 we / run / because it's late
_____.

D. Modals: can/can´t: <u>Underline</u> the correct word or phrase.

/5

Example: Can he **<u>play</u>** / **to play** the chess?

1 He **no cannot / can't** sing very well.

2 "Can you make pasta?" "Yes, I **can / can make**."

3 She can't **speak / speaks** Spanish.

4 **You can / Can you** do the homework?

5 It's OK. You **can** / **can't** park here.

E. Articles: a/an/the: Complete the sentences with a, an, the, or – (no article).

/5

Example: There was *<u>an</u>* amazing beach in front of the hotel.

1 Stephen doesn't have _____ job.

2 I read _____ interesting book last week.

3 Jeremy was _____ worst singer in the competition.

4 Is Martin _____ good doctor?

5 Alice ate all of _____ sandwiches I made.

F. Possessive adjectives: Complete the sentences with the correct word.

/5

Example: *<u>Her</u>* name is Rebecca. She's a teacher.
-His - He - Her

1 Leo, please close _____ book.
-you're -you -your

2 I'm American. _____ family is from New York.
-My -Your -Their

3 We're students. _____ teacher is Irish.
-Their -Our -Your

4 Antonio's Brazilian, but _____ mother is Russian.
-his -her -she

5 They're teachers. _____ names are Sam and Anna.
-Her -His -Their

G. Object pronouns: Complete the sentences with me, you, him, her, it, us, them.

/5

Example: Can you help *<u>me</u>*? I can't do my homework.

1 It isn't a good book. I don't like _____.

2 We don't speak French. They don't understand _____.

3 You're friends. You like _____ and she likes you.

4 She likes Tony, but she doesn't love _____.

5 Are they Greek? Can you ask _____?

H. Frequency adverbs/Time expressions: <u>Underline</u> the correct word.

/5

Example: I **<u>never</u> / always** eat fish. I don't like it.

1 I work from 9 a.m. to 3 p.m. That's six **seconds / hours** a day.

2 John hardly **never / ever** washes his car.

3 They have English classes **twice / three** times a week.

4 I **always / usually** start work at 8 a.m., but on Mondays I start at 9 a.m.

5 We don't work every **day / week**. On Saturday and Sunday we relax.

I. Prepositions of time and place: Complete the sentences using at, to, in, on.

/5

Example: They have dinner <u>*at*</u> half past seven.

1 Do you usually have lunch _____ school?

2 It's very cold _____ December.

3 The party is _____ Friday.

4 I have French classes _____ the evening.

5 We go _____ the shopping mall by bus.

J. There is/ there are: Use the words to write positive (+) and negative (–) sentences and questions (?) with there is / there are. Add some, any, a where necessary.

/5

Example: a mirror in the bathroom (?)

<u>Is there a mirror in the bathroom?</u>

1 stores near our new house (+)

_____

2 a school in the town (?)

_____

3 a television in the kitchen (–)

_____

4 cupboards in the dining room (?)

_____

5 a swimming pool in the yard (+)

_____

K. <u>Quantifiers:Underline</u> the correct word or phrase.

/5

Example: Sylvia buys **many** / **<u>a lot of</u>** fruit. She's very healthy.

1 He didn't eat **any** / **no** food. He wasn't hungry.

2 We need some coffee. There's **any / none** in the cupboard.

3 How much coffee do you drink? **A lot** / **A lot of**.

4 I work very hard so I don't have **much** / **many** free time.

5 Put **a few / a little** salt in the soup.

L. Simple past: Complete the sentences with the correct word or phrase.

/5

Example: Yesterday <u>was</u> Monday. Today is Tuesday.
didn't didn't was was

1 What time _____ Mrs. Cooper leave?

-is -was -did

2 Vicky _____ her purse last week.

-losed -lost -lose

3 "Did they enjoy the movie?" "Yes, they _____."

-enjoyed -did enjoy -did

4 I _____ a magazine on the bus.

-readed -read -red

5 _____ the tennis match yesterday?

-Did you watch -You watched -Watched you

Adapted from:

Oxenden, C., Latham-Koenig, C., & Seligson, P. (2008). American English File 1 (Segunda ed.). USA: Oxford University Press.

Appendix D: Internet Use Questionnaire

Encuesta sobre el Uso de Internet

El siguiente cuestionario es parte de un estudio investigativo sobre el método de enseñanza "Clase Invertida" (Flipped Learning). Su participación en este estudio es voluntaria, y sus respuestas son anónimas y serán empleadas solamente para propósitos investigativos.

Sexo: Masculino _____ Femenino _____

Edad: _____ años

Fecha: _____

Marque con una "x" su respuesta. Escoja solamente una opción.

1. ¿Ha utilizado alguna vez una computadora conectada a internet? Sí ___ No ___

En caso de que su respuesta sea afirmativa continúe resolviendo el cuestionario hasta el final, caso contrario entréguelo al encuestador.

2. ¿En cuál de los siguientes contextos ha utilizado con más frecuencia una computadora conectada a Internet?
   - ☐ Cibercafé u otro contexto abierto al público
   - ☐ Biblioteca
   - ☐ En el hogar
   - ☐ En la institución en donde estudia
   - ☐ Otro: _____
3. ¿Con qué frecuencia usted accede a Internet?
   - ☐ Una vez al mes o menos
   - ☐ Una vez por semana
   - ☐ Varias veces por semana
   - ☐ A diario
   - ☐ Varias veces al día
4. ¿Cuántas horas a la semana se conecta a internet? _____
5. ¿Con qué fin utiliza más el Internet?
   - ☐ Entretenimiento
   - ☐ Propósitos educativos
   - ☐ Comunicación
   - ☐ Otro: _____
6. ¿Cree usted que Internet puede favorecer el aprendizaje de un idioma? Si ___ No ___

Adaptado de:
Davis, D. (2016, 09 03). Haverford College. Retrieved from Survey of Computer and Internet Use: http://ww3.haverford.edu/psychology/ddavis/webforms/ma.paper.02.q1.html

Appendix E: Students' perception questionnaire

Encuesta para determinar la percepción de los estudiantes sobre la metodología "Flipped Learning"

Edad: _____ Género: _____ Fecha: _____

La presente encuesta tiene la finalidad de conocer la opinión de los estudiantes sobre el uso de la metodología "el Aula Invertida" (Flipped Learning) en el aprendizaje de inglés como lengua extranjera. Encierre en un círculo la respuesta que usted considere correcta.

(4) Totalmente de acuerdo
(3) De acuerdo
(2) Indiferente
(1) En desacuerdo
(0) Totalmente en desacuerdo

1. Esta metodología me facilitó el aprendizaje de los contenidos.	4	3	2	1	0
2. Me sentí involucrado en el proceso de aprendizaje.	4	3	2	1	0
3. Sentí el apoyo constante del docente a través de las lecciones.	4	3	2	1	0
4. Me siento cómodo aprendiendo en casa.	4	3	2	1	0
5. Prefiero las clases dentro del aula.	4	3	2	1	0
6. Con esta metodología puedo gestionar mejor el tiempo y lugar para aprender.	4	3	2	1	0

7. **¿Desearía aprender con la misma metodología en futuras lecciones?**
   Si _____ No _____

¿Porque?

_____
_____

En la siguiente sección se le solicitará su opinión sobre los videos (screencasts) observados en el proceso. Encierre en un círculo la respuesta que usted considere correcta.

(4) Excelente
(3) Muy bueno
(2) Bueno
(1) Regular
(0) Malo

8. ¿Cómo le pareció los videos para comprender el tema?	4	3	2	1	0
9. ¿Qué relación tuvieron los videos con su nota en la evaluación final? (¿Le ayudaron a sacar un puntaje alto?)	4	3	2	1	0
10. ¿Cómo fue la claridad de los videos al presentar el punto gramatical?	4	3	2	1	0
11. ¿Cómo le pareció la elaboración de los videos? (audio, animación o imágenes)	4	3	2	1	0

12. ¿Cuántas veces observó cada video?

Una vez Dos veces Tres veces Cuatro veces 5 o más

Adapted from:

Johnson, B. Graham (2013). Student Perceptions of the Flipped Classroom. University of British Columbia.

Pinnelli, S; Fiorucci, A; Sorrentino, C (2016). Flipped Classroom and University: the Tic & DIL Project and Students' Perceptions. International Journal of Learning and Teaching Vol 2. No 2.

Gonzalez-Gomez, D.; Cañada Cañada, F.; Jeong, J.S. (2016). Students' Perceptions and Emotions Toward Learning in a Flipped General Science Classroom. J Sci Educ Technol. Springer. New York.

Appendix F: Lesson plan template

Flipped Lesson Plan

Group:	**Date:**	**Time:**	**Nº of students:**
Topic:			
Learning objectives:			
Assessment:			
Materials:			
Anticipated problems:			
Home activities			
Timing	**Procedures**	**Resources**	**Success Indicators**
Classroom Activities			
Timing	**Procedures**	**Resources**	**Success Indicators**
Homework/further work:			

Appendix G: Students' perception additional data

Table F1.
Students' perceptions on Flipped Learning

	This approach facilitates learning of contents.	I felt involved in the learning process.	I felt constant support from the instructor.	I feel comfortable learning at home.	I prefer lessons inside the classroom.	I can manage the time and place for learning with this approach.
Totally disagree	0	0	1	1	0	1
Disagree	0	1	0	2	0	2
Neutral	0	1	2	4	11	1
Agree	11	15	6	6	7	7
Totally agree	14	8	16	12	7	14

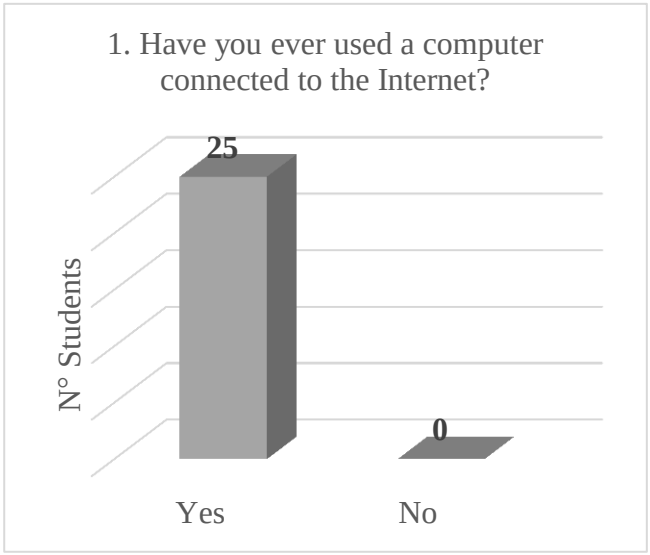
Table F2.
Students' perceptions on the screencasts

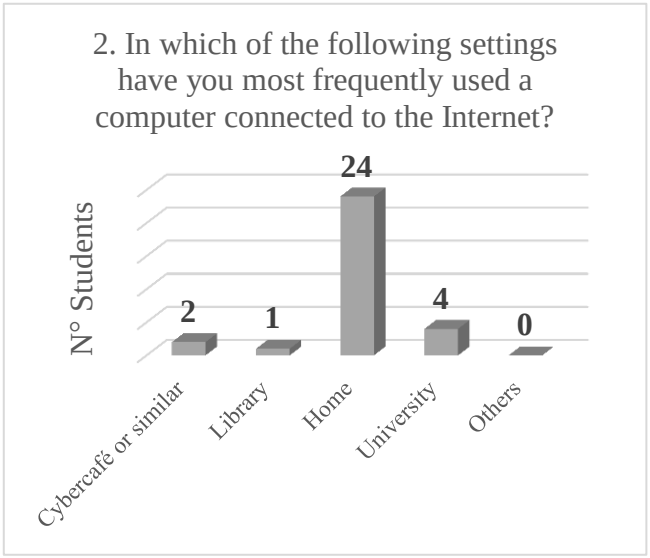
	How helpful were the videos to understand the content?	How was the relationship between the screencasts and your final score?	How clearly did the screencasts present the content?	How was the production of screencasts (audio, animation, pictures)?
Bad	0	0	0	0
Fair	0	2	0	0
Good	4	9	5	5
Very Good	9	10	10	13
Excellent	12	4	10	7

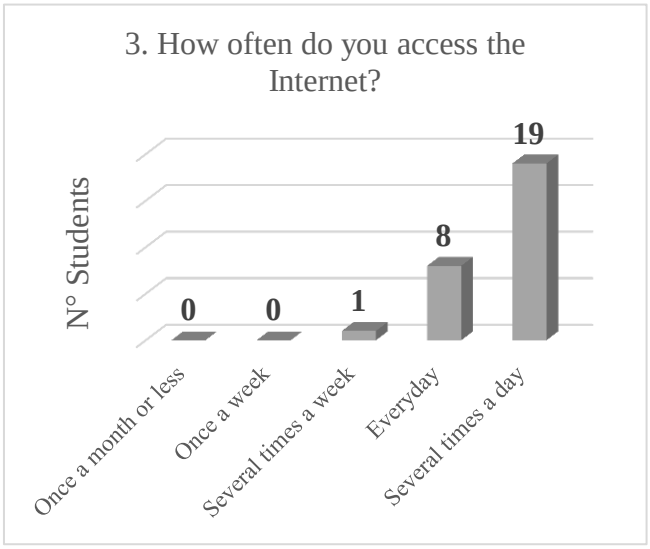
Table F3.
Descriptive statistics: Satisfaction Questionnaire

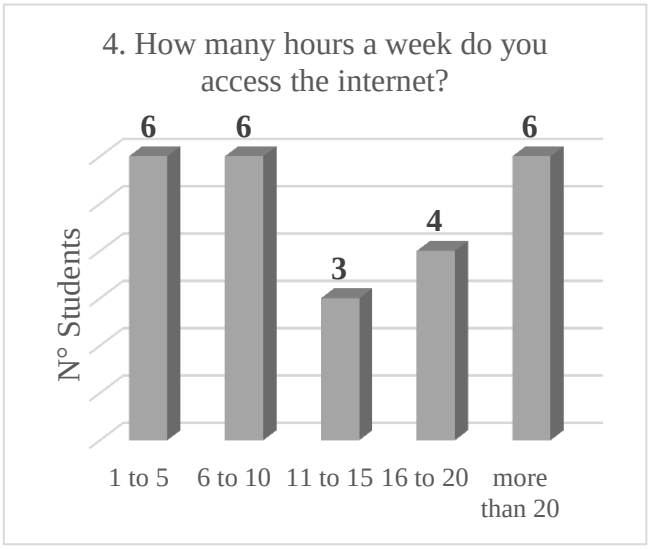
	Mean	SD
This approach facilitates learning of contents.	3,6	0,5
I felt involved in the learning process.	3,2	0,7
I felt constant support from the instructor.	3,4	1,0
I feel comfortable learning at home.	3,0	1,2
I prefer lessons inside the classroom.	2,8	0,9
I can manage the time and place for learning with this approach.	3,2	1,1
How helpful were the videos to understand the content?	3,3	0,7
How was the relationship between the screencasts and your final score?	2,6	0,9
How clearly did the screencasts present the content?	3,2	0,8
How was the production of screencasts (audio, animation, pictures)?	3,1	0,7
Number of screencast views	1,9	1,1

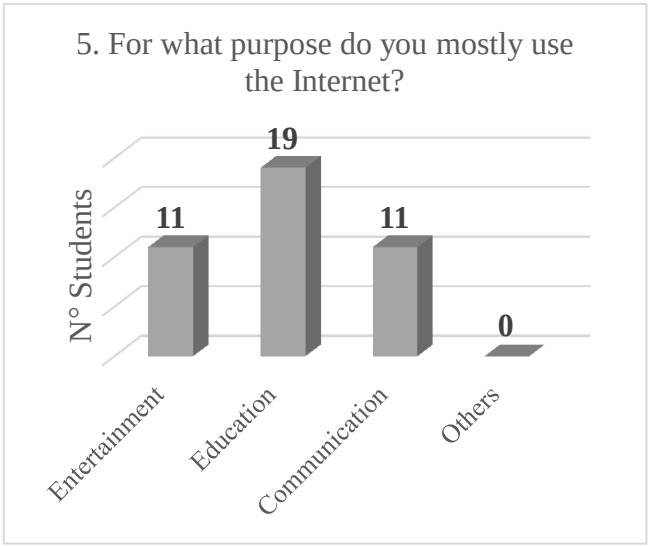
Appendix H: Internet Use Questionnaire results

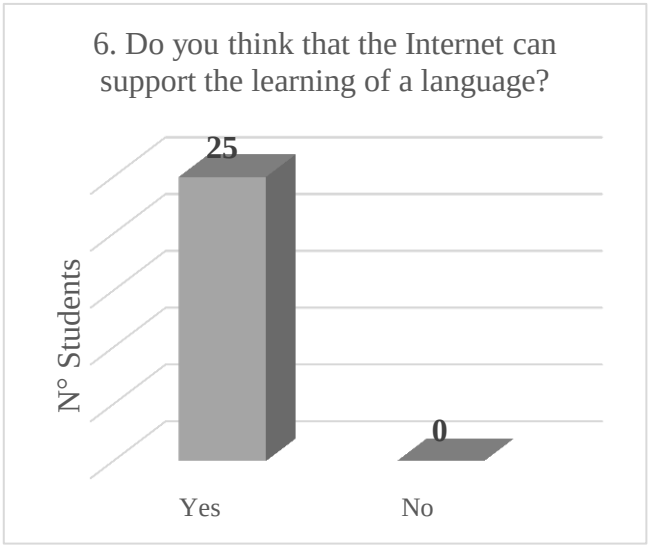




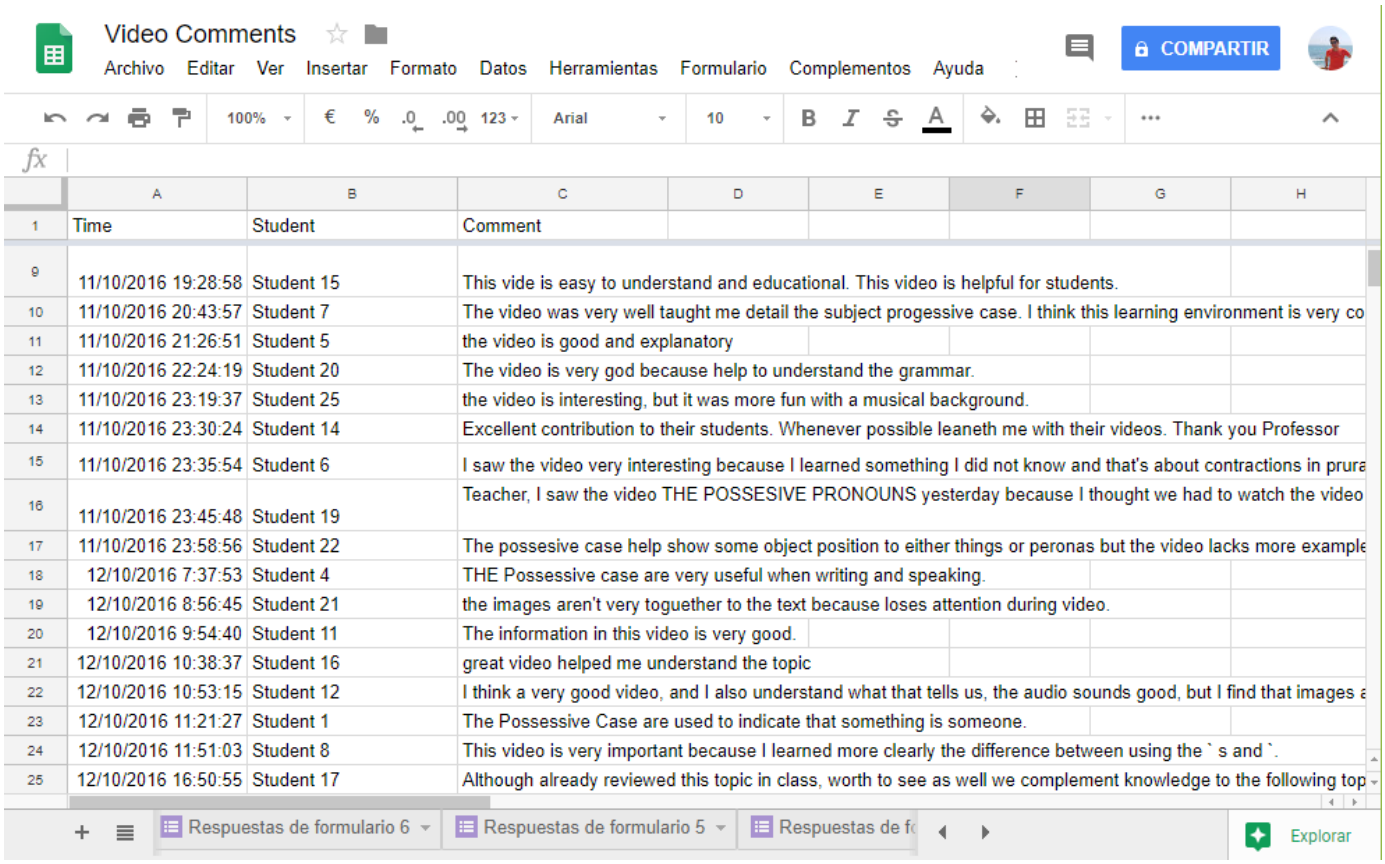








Appendix I: Journal Entry Sample



Video Comments

Archivo Editar Ver Insertar Formato Datos Herramientas Formulario Complementos Ayuda

COMPARTIR

	Time	Student	Comment
9	11/10/2016 19:28:58	Student 15	This vide is easy to understand and educational. This video is helpful for students.
10	11/10/2016 20:43:57	Student 7	The video was very well taught me detail the subject progessive case. I think this learning environment is very co
11	11/10/2016 21:26:51	Student 5	the video is good and explanatory
12	11/10/2016 22:24:19	Student 20	The video is very god because help to understand the grammar.
13	11/10/2016 23:19:37	Student 25	the video is interesting, but it was more fun with a musical background.
14	11/10/2016 23:30:24	Student 14	Excellent contribution to their students. Whenever possible leaneth me with their videos. Thank you Professor
15	11/10/2016 23:35:54	Student 6	I saw the video very interesting because I learned something I did not know and that's about contractions in prura
16	11/10/2016 23:45:48	Student 19	Teacher, I saw the video THE POSSESIVE PRONOUNS yesterday because I thought we had to watch the video
17	11/10/2016 23:58:56	Student 22	The possesive case help show some object position to either things or peronas but the video lacks more example
18	12/10/2016 7:37:53	Student 4	THE Possessive case are very useful when writing and speaking.
19	12/10/2016 8:56:45	Student 21	the images aren't very toguether to the text because loses attention during video.
20	12/10/2016 9:54:40	Student 11	The information in this video is very good.
21	12/10/2016 10:38:37	Student 16	great video helped me understand the topic
22	12/10/2016 10:53:15	Student 12	I think a very good video, and I also understand what that tells us, the audio sounds good, but I find that images a
23	12/10/2016 11:21:27	Student 1	The Possessive Case are used to indicate that something is someone.
24	12/10/2016 11:51:03	Student 8	This video is very important because I learned more clearly the difference between using the ` s and `.
25	12/10/2016 16:50:55	Student 17	Although already reviewed this topic in class, worth to see as well we complement knowledge to the following top

Respuestas de formulario 6 | Respuestas de formulario 5 | Respuestas de f | Explorar

Appendix J: Pictures taken during the research project

Activity: “Find someone who…”

Activity: “Interview your classmates”

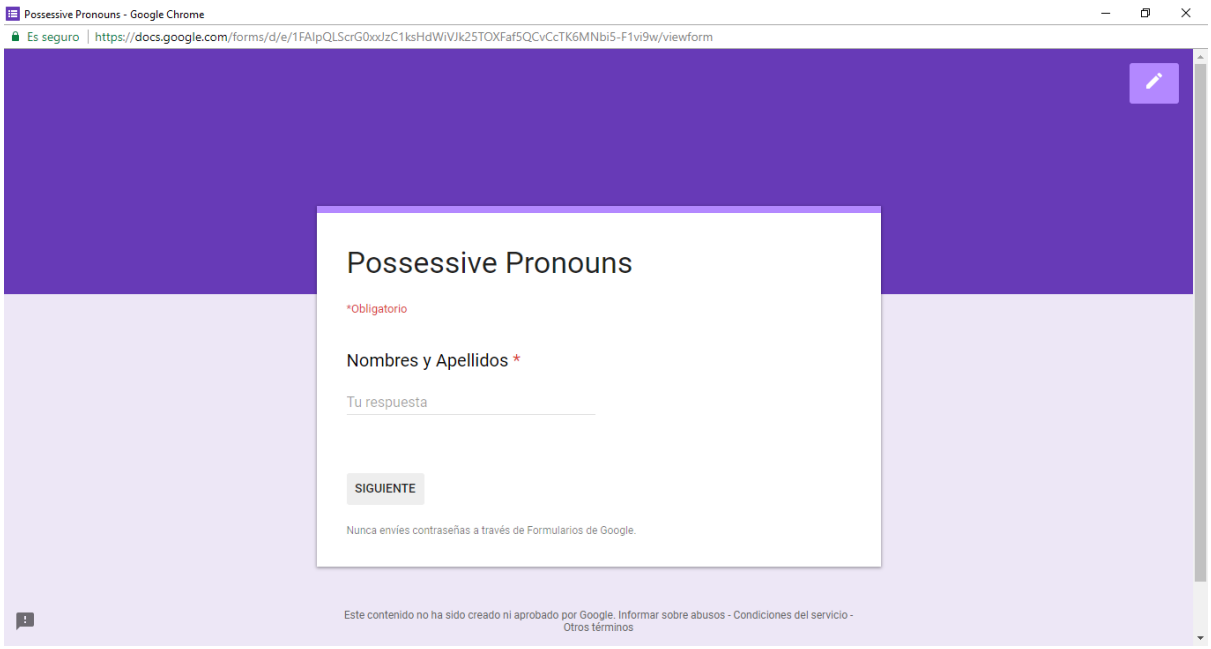
Oral presentation: “My favorite…”

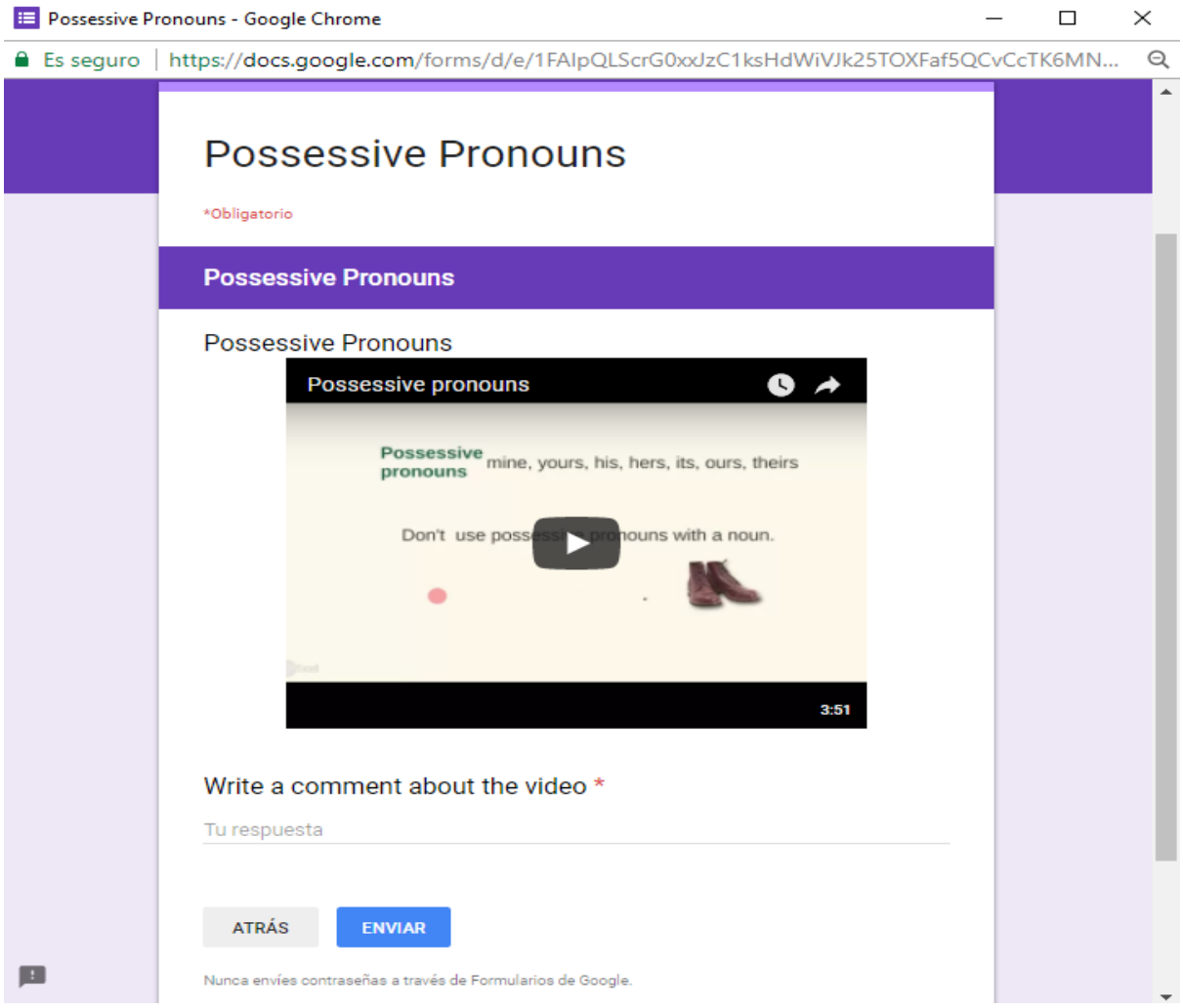
Group work: “At the mall”

Post-test application

Project: “Christmas cards”

Appendix K: Google form sample





Appendix L: Students' average scores from previous semesters

English Level 1: Sep 2015-Feb 2016/Summer Courses 2016		
N°	**Course**	**Final score**
1	A-1	64
2	B-1	70
3	C-1	68
4	D-1	72,45
5	E-1	77,7
6	F-1	67
7	G-1	65,43
8	H-1	79,5
9	I-1	64
10	J-1	78,1
11	K-1	72,6
12	L-1	72,25
13	M-1	68
14	N-1	71,83
15	P-1	86,2
16	Art 1-1	76
17	Art 2-1	63,53
18	AGR. 1-1	73,9
19	AGR. 2-1	67,71
20	MED. 1-1	85,7
21	MED. 2-1	79,9
22	MED. 3-1	75,58
23	TEC. 1-1	59,64
24	TEC. 2-1	70,62
25	ENF. 1-1	72,7
26	ENF. 2-1	75,6
27	ENF. 3-1	70,3
28	SC B-1	72,7
29	SC E-1	75,53
30	SC H-1	75,9

Interval	F	Equivalence	Percentage
90-100	0	Excellent	0,00%
80-89	2	Very good	6,67%
70-79	19	Good	63,33%
60-69	8	Fair	26,67%
0-59	1		3,33%
Total	30		100%