

**Motivation towards Learning English Fostered by the Implementation of a Didactic
Sequence Mediated by the Use of the Metroidvania Video Game Hollow Knight**

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“Creczan, trabajen duro y sean responsables, pero nunca dejen de jugar”

- Gabriel “Champ” Casillas

ABSTRACT

The present research project aims to measure the motivation level of a group of students from an English course at Icesi University by using a didactic sequence mediated by the use of a Metroidvania Video Game as the main engagement element for learning the second language. In order to do so, this paper recovers the different perspectives of the students and the researcher while teaching and learning to use a video game, analyzing how the motivation is promoted and making the comparison among other papers with similar objectives but using different tools and games. Among the findings, a description of the way in which motivation was positively influenced using a didactic sequence mediated by the use of the Metroidvania videogame Hollow Knight through their respective testimonies and information gathered by the researcher while applying the activities proposed for every stage of the experience.

KEYWORDS: Video Games, meaningful experiences, meaningful learning, English teaching, motivation, gamification.

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1. INTRODUCTION

Colombia is a country that faces a problem in reference to a low bilingual level in a world where English is one of the most spoken languages. According to the English Proficiency Index made by E.F (English First¹) in 2019, Colombia is one of the countries in which the level of English is too low, occupying the 68th of 100 positions on the index.

The context presented in Cali, Colombia does not promote the learning of another language in a motivational way, it is possibly because the main tongue is Spanish, and we may not seem to have strong contact with English. People are not used to using English for communication and, subsequently, what they learn in school is easily forgotten thanks to the low level of practice. Additionally, the current technology used for translators and software thought for breaking the language barriers has provoked (and induced in a certain way) that people tend to prefer this kind of facilitators instead of learning the language itself.

Taking into account all of the above and reflecting on the consequences in the long term, people who want to join the academic world (being a scientist, researcher or even a university student) will find a big language barrier because a lot of information is written in English. Moreover, people who see the possibility of moving or are in another country, face the consequences of not knowing English which implies limited interactions with the context or the demotivation for being, living, or working there.

¹ English First: is a private organization online focused on international teaching and learning. This organization provides an index where every country has a rank for cataloguing the English level of it.

From my own experience and personal evidence, some university students complain about the typical routine their teachers create for the class, claiming that the only important subject for teachers is the same which they have been learning along the school. Other students affirm that their teachers assume the clarity of the content and most of the students say teachers do not use creative material but a generic textbook. It seems like that is why a lot of students opt for simply translating their homework or just letting someone else develop it for them. Additionally, there are a lot of students affirming the fact of having learned/acquired English vocabulary through video games since early ages of the school; being part of this group of students, I as a researcher decided to analyze and measure the impact that video games have on motivation while learning English.

However, and thanks to the different platforms nowadays, the popularization of video games has been highly benefited. This has caused that video games demonstrate a higher presence in people's lives, from video games for mobile devices to jobs completely based on the development of games. It is not unusual that some researchers try to incorporate video games into the different knowledge areas to explore an underrated potential. From this situation, a very interesting catalog of research studies (Jimenez & Ricaurte, 2012; Rivas, 2016; Revilla, 2019) had given valuable information about the possible application for video games, changing the current paradigm that has led them to be left behind as “a waste of time.”

In spite of the above, teachers have considered that education must be completely separated from those elements that generate a distraction or represent an obstacle to the process of learning. In the current context, teachers prefer teaching while using the traditional model and repetitive activities instead of creating new strategies for the class, strategies that could contribute to the improvement of learning as we know it. However, there are some researchers and teachers

interested in incorporating video games into the teaching of diverse knowledge, there are a number of teachers who studied the use of video games in other areas, these teachers are integrating titles like *Age of Empires* or *Factorio* at Icesi University in subjects like "pensamiento sistémico" from Industrial Engineering for developing the good resource management.

From this perspective, the question that will guide this research is:

To what extent does a didactic sequence mediated by the use of the video game Hollow Knight influence the motivation of a BI-level group of students at ICESI University?

2. JUSTIFICATION

This research describes the motivation towards learning English of a group of students from ICESI University who are in B1-level (CEFR) by a didactic sequence mediated by the use of a video game, evaluating how this game influences the motivation of the group. It is considered necessary to search, develop and implement new and relevant resources to the classroom. It would offer new meaningful experiences for students and new strategies for those teachers that want to incorporate relevant resources in teaching and learning processes that take place in the classroom.

As a language teacher and gamer, I am very interested in observing how video games, which integrate an important part of my life, can transform the way society sees the learning process of a foreign language. Using video games for teaching/learning is not about using it just for fun or using it for distracting, it implies the development of certain abilities for achieving a learning objective; video games could turn on an essential tool even when they are considered purely as entertainment. Video games could be not a “privilege” for one or two degrees at the university but a common and valuable resource for every student interested in new ways of learning different subjects in class; I visualize my classes and methodologies highly linked with video games, I could take advantages of my knowledge areas for offering or even opening a new world for students and teachers, a world for exploring and explode in mutual benefit.

Additionally, this research and its application could motivate and improve (in a certain way) the English student’s performance in a class by demonstrating that even if people are not familiarized with video games, they can use it as an instrument for expanding their personal learning environment and the way they see how education can be proportionated.

Finally, it is necessary to clarify that knowledge of video games and the thought that led me to see them as the important resource as they are, is the result of several years of experimenting on different platforms, interacting with different communities, and analyzing every title played which could innovate in the academic and pedagogical ambit.

This experience itself will be the beginning of the path I want to follow, allowing me to take the first glance at a field I have been thinking about since I started this degree. Putting in practice what I have learned from teaching and playing together will let me observe the different perspectives from students as they learn with this style of teaching; improving over and over the strategies proposed and demonstrating the potential of a tool that is beginning to emerge.

This research also provides a new way to implement new tools and experiences for teaching English while promoting the motivation of the students for learning. As it is not mandatory to use the same video game or the same concepts, teachers and researchers could use this work as the base for new pedagogical research for different contexts, contributing at least in a small way to innovate the English learning/teaching processes.

3. OBJECTIVES

3.1. General Objective

To describe the motivation towards learning English fostered through the implementation of a didactic sequence mediated by the use of a Metroidvania video game in a B1-level (according to the CEFR) group of students from the undergraduate programs at ICESI University.

3.2. Specific Objectives

1. To diagnose the motivation towards learning English in A B1-level group of students from the undergraduate programs at ICESI University before and after the implementation of a didactic sequence mediated by the video game Hollow Knight.
2. To design a didactic sequence mediated by the video game Hollow Knight in a B1-level group of students from the undergraduate programs at ICESI University.
3. To implement the didactic sequence mediated by the video game Hollow Knight in a B1-level group of students from the undergraduate programs at ICESI University.
4. To describe the motivation towards learning English through the use of the video game Hollow Knight.

4. THEORETICAL FRAMEWORK

There are concepts directly related to the topic of the research like *motivation* or *video game types*, the comprehension of these concepts is extremely important for achieving a clear understanding of the information reflected along this document. Moreover, some literature has been reviewed and added to this section in order to reinforce the information taken from the research process. That is why this section is dedicated to defining those keywords and presenting the literature found.

4.1 Conceptual Framework

This section encompasses the most relevant concepts for this research as motivation and the relationship between it and learning a foreign language, video games, and the relationship between it and learning a foreign language. Additionally, it proportionate information about the genre, category, subcategories, and some mechanics which are crucial characteristics for understanding how the game used in this investigation works.

4.1.1. Motivation

This concept constitutes one of the two indispensable concepts, because it is the key for engaging learners in a learning process mediated by the use of a videogame. It is what impulses students to get involved in certain experiences, Bruner (1974) tries to explain that human attention is dragged to the unknown and unexplored, we keep our attention and figure it out in

the end. Bruner also identified something called intrinsic motivation, which consists in the very authentic motivation of a person for doing something, to get new knowledge about an unknown topic and specifically for this research, to feed the authentic impulse of human beings for learning.

Ellis (1994) defines the motivation as the attitudes and affective states that influence the efforts of a learner for acquiring an L2; Ellis also says that “motivation involves the arousal and maintenance of curiosity and can ebb and flow as a result of such factors as learners’ particular interests and the extent to which they feel personally involved in learning activities.” Following Ellis’ ideas, the use of a metroidvania video game that has an exploration component could be the key for generate excitement and for maintaining the learner’s curiosity; this genre provides a linear path for the progression but implying elements that do not present the environment as a one-way road but a multiple choice experience where learners have the freedom for deciding their own path.

The importance of motivation in this research lies in the position video games are taking in, as they are the focus of the activities, and they are used as the primordial tool for promoting students’ motivation while learning a new language.

Moreover, motivation promoted by the use of videogames can be translated to the curiosity that human beings have while playing. We have played since we were children, we play when we are teens and we continue playing along our lives until we get older. Using this kind of digital resource for appealing to the curiosity and waking up the intrinsic motivation by continuously providing new elements, places, characters, interactions and skills, could be a better way for teaching and learning a new language; not because playing is funny or easy but because it is a

part of our nature and language teachers can take some advantage of that for promoting motivation.

While observing the students' context surrounded by a lot of digital devices that allow our students to get involved in several activities such as interacting with different people, exchanging information about a specific topic or just using these devices in order to play an online game for entertainment; we as teachers have to think about how to promote motivation towards learning while facing the possible obstacles presented by the current digital context, that is why we cannot take apart the component of motivation from learning. Ames (1990) says that putting a value on developing the motivation for learning, we as teachers are concerned about our students initiating learning activities and maintaining it as a commitment with their process, that is why this project tries to convert those possible distractions (that are probably a recurrent entertainment activity) into an advantage for the learning process, using a videogame as an important promotor of the motivation for learning, in this case, a foreign language.

Following the last idea, every time we look for an innovative way to teach a subject, we try to enhance the motivation levels of our students and maintaining it through every stage of the sequences we use while teaching. That is why, whenever we as teachers ask questions such as "How do I help my students to get started" or, "What can I do to help them going" or, "What should they do next?" we are dealing with issues of motivation (Wlodkowski, 1984, p.12). A possible question for this paper could be "How do I transform an entertainment resource into a meaningful learning resource?" or, "How can my students take their games as a learning tool?", those questions could be answered by implementing and analyzing the results of this project.

Although we as teachers give our students a suitable environment and strategies for involve them in the learning process, Ray (1992) states that if we measure motivation strictly as an

achievement, we could lose those educational goals that we as teachers were focused on. We have to take motivation as a very important part of the learning processes but not as the center of our designs, it contributes to the achievement of goals but does not compose the “everything” of the practice.

4.1.2. Relationship between Motivation and Learning a Foreign language

According to Dörnyei (1990), the motivation to learn a foreign language is highly linked to a variety of factors encountered in the environment such as a direct exposure or frequent interaction. Canada is the perfect example of this, having a strong relationship between Anglophone and Francophone people. But this is not restricted to one country, considering that a lot of nations are multicultural, learning a foreign language gains a very important social relevance (Dörnyei, 1994).

Deci and Ryan (1985) as quoted by Dörnyei (1994) stated that:

Intrinsic motivation is in evidence whenever students' natural curiosity and interest energise their learning. When the educational environment provides optimal challenges, rich sources of stimulation, and a context of autonomy, this motivational wellspring in learning is likely to flourish (p. 245).

If we consider the Colombian case, having English as a target language creates, in a certain way, a predisposition from the students towards the process of learning it. It seems that there is a lack of innovative ways for teaching/learning English in this country, the traditional model and proposed activities are being repeated again and again by English teachers and several institutions who do not take into account the curiosity or even the motivation factor for learning; this

problem added to the lack of exposition to the English community and culture in the Colombian context is, speculatively speaking, the main cause of low motivation while learning English.

4.1.3. Video Games and Types of Video Games

Actually, there are several categories and subcategories of video games; however, Metroidvania is one of the most popular subcategories of action-adventure games currently. Based on that, the following concepts explain how the videogame used “*Hollow Knight*” is highly linked with the motivational issues while using this type of tool as the main element of motivation when learning.

Subsequently, the following information describes in detail the categories and subcategories that the videogame chosen presents, the elements on them and a little description for the better comprehension of the topic:

4.1.4. Action-adventure games

First of all, the main category, (we will call it genre) “Action-adventure” encompasses the next subcategories or sub genres of the videogame, “*Hollow Knight*”. This genre could be defined as the combination of various elements from an action game and an adventure game, such as combats, a main storyline, side stories, collectibles, exploration, etc. In some special cases, these action-adventure games can also incorporate puzzle mechanics, that is why there is not a clear definition for this genre.

4.1.5. Metroidvania

According to Bueno (2018), this is a subgenre from the action-adventure games. It is based on a non-linear platformer concept. Cossu, 2019 explains the term “*Metroidvania*” as the combination of two names from two famous franchises known as Metroid and Castlevania; the specific names are Super Metroid (Nintendo, 1994) and Castlevania: Symphony of the Night (Konami, 1997).

The focus of this subgenre is on exploration, this activity requires particular skills and items in order to complete the action of exploring, this forces the player to backtrack. One peculiarity of this genre is that the progression of the players is affected by the special items or skills they obtain for unlocking new areas of the game or by gaining new exploration skills for reaching areas that were out of reach before (Cossu, 2019).

Metroidvania games provide a self-fulfillment feeling to the players because they do not provide “How-to” instructions, but present some elements in the environment suggesting the player that “something has to be done here” generating genuine curiosity, making players ask themselves questions such as “how do I reach that place?” or “how do I do this?” This motivates players to keep going on their way at the same time that the game fosters the backtracking; we could say that this genre recovers all the players’ experience and takes it as the driving force for them to keep achieving goals.

4.1.6. Scrolling Platformer

This is also a subgenre from the action game genre. Like the classic platformers, this subgenre is composed of simple actions like walking, picking items, and jumping on platforms; a clear

exponent of this genre is the famous game Super Mario Bros (Nintendo, 1985). According to Cossu, 2019, this subgenre implements new features like gravity, climbing, and item collection; this is the main difference between a single screen platformer and a scrolling one.

Video games could be considered just as entertainment for people, but their popularity has been affected positively in the way that they are winning more and more space in several fields like sports, medicine, and education. Thanks to this, people are consuming more video games than before, making television and other entertainment ways obsolete; taking advantage of this, this research uses a Metroidvania called Hollow Knight which is a platform game with a big adventure component for promoting the motivation of students while learning English.

This research takes the aforementioned into account and aims to measure the learners' motivation for learning English while putting them to play the video game and bring their in-game experience to the sessions for practicing English and achieving the language objectives proposed by the researcher.

4.1.7. Hollow Knight

Hollow Knight is a metroidvania developed by the indie company called "Team Cherry" and released for Steam, PlayStation and Xbox on the 24th of February of 2017. The players incarnate the knight, a little creature which starts a journey to save the Hallownest kingdom. Along the way, players encounter several and uncommon characters that will help them (or not) to continue making history, they will be defeating powerful enemies only using their sword and skill acquired in the adventure.

Although the game exposes learners to the second language, this is not the focus of the research. The appearance of text boxes and dialogues becomes fully optional for the learners and can foster, in a certain way, motivation towards learning English. But again, this is not the focus of the researcher. It has to be clarified that what is “collected” in the sessions where the didactic sequence is implemented, is the experience of the learners when playing the game and how they manage to bring it to an educational environment to put into practice their skills in the target language, always in a descriptive way, but adapting the language objectives to the required grammar.

4. 2. Literature Review

While looking for information related to the topic covered in my project, I have to say that the use of video games in the classroom is a practice that has gained notoriety among researchers, and I found some accurate material for my research. This literature review discusses the design of activities related to video games and the learning of a foreign language.

However, there are more research (Álvarez, 2020; Steel, 2020; Janebi & Haghightpasand, 2017) focused on the implementation of video games but not centered on how they work as a motivational tool at all, researches that do not cover completely my topic but provide an idea related to the implementation and design activities mediated by video games to the class for enhancing the different skills.

The first research I found was by Quintero and Ricaurte (2012). This research presents a strategy mediated by a specific title, applying two tests and eight sessions with video games to fourteen students of 8th grade from Colegio Gimnasio Integral Moderno in Bogotá for observing

if the videogame could help to improve the student's vocabulary. Initially, the students took a vocabulary test based on the first modules of the game for checking the English level of the class. The use of this game and the design of the tests was boosted by the problem of the absence of integration of alternative learning methods like specialized games, promoting a strategy that not only used the game as a tool but a portable console itself, which represents an advance in terms of resources and material for learning. After the sessions and the last test, most of the students (about 92%) presented a higher level of motivation and a significant improvement in their English vocabulary. They expressed that playing helps to acquire knowledge in a funny way which makes it easier to understand what they are learning. Quintero and Ricaurte explored a population quite similar to the sample of this investigation, it works as a reference for me because it offers a design model as an example for following.

They also tried to measure the motivation by using filmed forums and taking into account the students' testimonies in order to have a reference to infer the motivation level of the group of study. According to this, teachers have to explore different tools for measuring the motivation while using a video game in order to obtain better results or, at least, a better prospect of the students' motivational level.

The second research I found was by Rivas (2016). It presents a discussion about the relationship between Information and Communication Technologies and English teaching, highlights the potential that ICT and video games offer for the design of new strategies in the classroom, and the barriers or negative beliefs that some teachers present when trying to integrate ICT into their classes. The researcher created a didactic sequence for a group of students between eight and twelve years old using the Task-Based Learning model and the videogame Minecraft. The research tries to convince teachers about how efficient is integrating

ICT (or video games in this case) to the current learning models. Moreover, the methodology used for the project is research-action, which is the same as this document, this gives a clear example of how to carry out a research study based on the cycle of action research.

All the content of the course was linked to the game content in a way that the students were able to, for example, learn about descriptions or vocabulary while using what they saw playing the game, guided by specific objectives along the sessions. Additionally, it gives a vision about how to change those beliefs to help teachers to comprehend how the correct use of ICT/video games could proportionate better results and how they can promote the motivation for learning.

Another research I found was by Revilla (2019). It is an exploratory analysis that used a descriptive method, which implied the observation of a sample composed of 25 (players and students) from 2nd, 3rd and 4th grade of Educación Secundaria Obligatoria. It is focused on how motivation is one of the most important elements for successful learning and how video games are the perfect tool for promoting this motivation. It presents a curious scenario where the fear of losing is null thanks to the environment created and the “freedom for making mistakes” is a crucial part of the process mediated by games. This specific part gives me the key while choosing the correct videogame for designing activities, it tells that not all the games are effective and not all the task results will be the same, a clear vision of what to expect from this work. This paper also presents a connection between the low motivation presented by students in a subject guided by a textbook, the motivation that a video game could provide to an educational environment by the different interactions in-game and the intrinsic motivation caused by the use of a game for learning English.

Revilla’s work presented some interesting results about a survey she implemented with the sample which presents the number of hours that students invest in playing video games. She also

highlights and analyzes some important aspects about the games and players as the age when they started to play video games, the established language, the languages implied while playing, and most importantly, how motivated were the students while playing.

Looking for specific titles, an interesting article that used *The Secret of Monkey Island – Special Edition* as a promoter for the learning of new vocabulary came to my research. Presented by Mostafa Janebi Enayat and Moshen Haghightpasand in 2017, “Exploiting adventure video games for second language vocabulary recall: a mixed-methods study” explores the identification of the video games as effective tools for learning new vocabulary using a graphic adventure game where the students take the role of the main characters, they must talk to other characters to get information and comprehend what is happening in the game’s world and solve some puzzle along the story, all of this presented in English as the language subject for the class (It also presents some helpful tools for players comprehension like subtitles.) Moreover, there is an experiment where two groups (one composed by players and the other without them but all students) try to appropriate some vocabulary, the first group reinforces it by playing the game and the other one do not do it, ending with the outperformance of the first group respect to the second one and the positive perception of students toward the game. This research offers a structure of a strategy planned for the application of my own sequences but using another title. This is the perfect sample for designing that I was looking for.

All of these completed researches build a bridge composed of advanced knowledge. I can use this bridge to cover the small gap between my technological background related to video games and the big academic world. These researches act as a useful reference in the way that all of the works have specific elements I want to take into account as the analysis of the games used or the different objectives planned for each strategy, ideas of how using video games can foster the

students motivation towards the English by planning pre and post tasks based on the game vocabulary learned and the concept of the students playing by themselves different video games outside the classroom in order to develop more vocabulary knowledge, which gives a detailed indication of how to construct my own investigation.

5. METHODS

5.1. Socio-Academic Context

This research took place at ICESI university which is located in the neighborhood Pance at the south of Cali, Valle del Cauca. Population attending this educational center comprehends students from all social-stratum and different places of Colombia, even reaching the international scale. From my academic experience, I could take two courses at university using video games for learning; however, this is not a common practice for English courses which do not use this kind of material for teaching, the motivation among students is a problem because it is not considered as important as other professional courses, this is one of the reasons I chose this population as the objective for my research; composed by twenty or thirty students per group, the classes last two hours twice a week which is minor making the comparison with the different courses that university offers, it seems like it makes that some students do not pay the correct attention to the classes pulling their priority.

It has to be taken into account that Icesi University uses the “Aprendizaje Activo” teaching approach. According to the Proyecto Educativo Institucional (PEI, 2017), this teaching approach is defined as the building of knowledge in an autonomous way from the students’ point, putting the teacher as a guide in charge of lead students to think by themselves and “*learning to learn*” through a variety of teaching-learning strategies. For this specific case, the researcher has to find a way for being the students’ guide in this experience.

5.2. Participants

This research described the motivation of a small group of students from the 6th and 7th level (B1-level according to CEFR) at ICESI University towards learning English fostered in the implementation of a didactic sequence mediated by the use of the Metroidvania video game *Hollow Knight*. This group was composed by three students from system engineering, telematic engineering and Psychology, three men between the age range of twenty and twenty-four years old, who were taking English classes simultaneously with the research. In addition, all of them were informed previously about the procedure of the investigation, they were not obliged to participate or to give personal information without consent, the entire group acceded to participate willingly.

5.3. Research Design

The research type followed by this investigation was action research. According to Huang (2010), action research is an orientation for creating new knowledge which emerges in a context that requires investigators to work with practitioners, it avoids the construction of statements merely speculative and supports ideas taken from the researcher's experience with evidence.

Burns (2010) defines action research as an intervention for generating changes in order to improve educational practices based on a problematic situation observed. This research observes a problematic related with the motivational levels towards learning English and gather data about this using a diagnostic in order to give a glance to the situation; Intervened in an educational context by designing and implementing a didactic sequence mediated by a video game in order to try to influence in a positive way the motivation levels and propose a new way for improving a

traditional teaching practice and analyzes the results obtained of that implementation giving the opportunity to other researchers to evaluate the performance of this research for future similar research.

This research was based on the action research methodology because it aims to evaluate new practices with different tools for reaching some pedagogical and motivational objectives, while trying to enhance the most common educational processes. Moreover, this sort of methodology was chosen due to the nature of the research, which is to use a flexible tool for more than one activity or sequence of them, not only promoting the motivation of the students but the motivation of the next researchers and teachers for exploring new ways to use the same model.

5.4. Methodology

In order to achieve the objective of this research, the following steps were carried out:

5.4.1. Step 1 - Diagnostic

An initial diagnostic composed of one survey and one focus group. This first survey, made the 29th of October of 2021, contained eight questions related to the time invested in video games and study, the availability of students, and the resource availability for playing; this survey was made by the researcher and participants (one by one, a total of three) using a voice channel from the discord server. Additionally, there was a focus group made later in the first session with the three participants and the teacher, on 29th October, guided by four questions formulated for sharing the students' impressions, expectations, and motivational level at the beginning before

entering the experience. All the answers were registered in digital video making a film that lasts thirty-two minutes approximately and written on an excel file for later interpretations.

5.4.2. Step 2 - Design of a didactic sequence mediated by the Video Game Hollow Knight

A design for the didactic sequence was planned for one week and a half, composed by three sessions that lasted sixty-five minutes. For the first session, all the participants (including the researcher) played the video game *Hollow Knight* simultaneously in order to have a guide for playing and sharing the very first gaming experience before the first activity planned for the following session. In the three sessions, the participants had to achieve in-game objectives proposed by the researcher such as “Meet the first boss, The False Knight and defeat him” or “Meet for the first time with Hornet”, before every class they had to invest time in playing (there were no restrictions because, otherwise, it could be perceived by participants as an obligation,) giving them freedom for exploring and a limitation for the important progression in the game.

As it said before, the objectives planned for each session are:

Session 1 - Objectives
To identify the relation between their game experience and learning a foreign language
To identify their motivation level towards playing and learning English
Session 1 - In game objectives
Meet the first boss, The False Knight and defeat him
Manage to reach the second location of the game, Green path
Meet for the first time with Hornet
Session 1 - Researcher objectives

To measure the initial motivation level towards learning English and playing a video game through a survey designed with questions related to this topic

To identify the students' skills and the first impressions of the students about their game experience and the game itself.

Session 2 - Objectives

To identify vocabulary for simple descriptions

To identify the descriptive sentence structure

To describe characters and the landscape by using the descriptive sentence structure

Session 2 - In game objectives

Obtain the dash ability from Hornet, return to the Forgotten Crossroads and follow the path to the Fungal Wastes

Enter the Fungal Wastes, explore the zone and try to find the Leg Eater which is near a bench. See what he has to say.

Session 2 - Researcher objectives

To continue measuring their motivation towards the game while facing challenges on it through a focus group

To achieve to bring the students' in-game experience to the lesson and incorporate it to the in-session learning process

To check if the in-game experiences was hindered by frustration or lack of skills in order to structure new objectives

Session 3 - Objectives

There is not a grammatical theme for this session. Instead of that, the teacher proposes the redaction of a letter in order to recover the students' in-game experience and then, apply the knowledge acquired in the last session and game sessions.

Session 3 - Researcher objectives

To measure the final motivation level towards learning English and playing a video game through a survey and a focus group designed with questions related to it

To put in practice the grammar learned in the lessons

To starting inferences and conclusions about the process based on the testimonies and data gathered

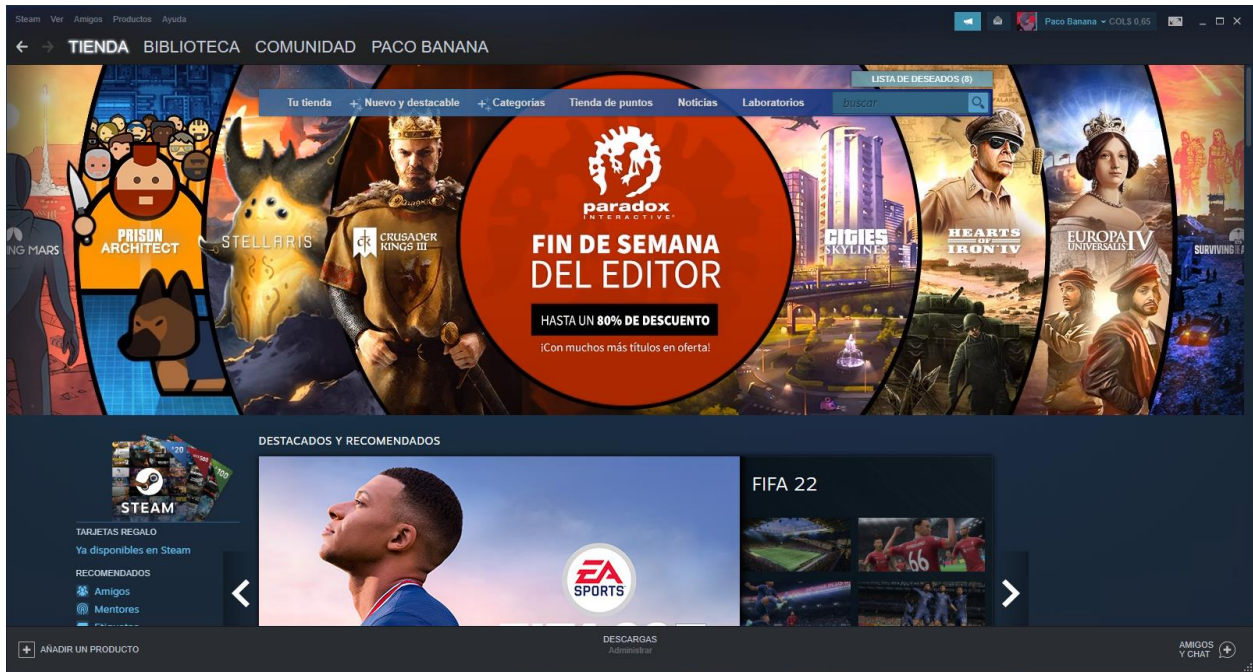
Based on the gaming experience, the researcher chose a specific topic that could be closely related to that experience, for example: Identifying and using specific vocabulary and structures for simple descriptions or using the simple past for describing what they saw in the game. Those are topics chosen for this didactic sequence but, it is not mandatory to use the same grammar topics for a similar sequence but since we are taking the in-game experience, the grammar topic could be adapted to the necessity of the students or English teachers.

5.4.2.1. Tools Implied in the Design of the Didactic Sequence

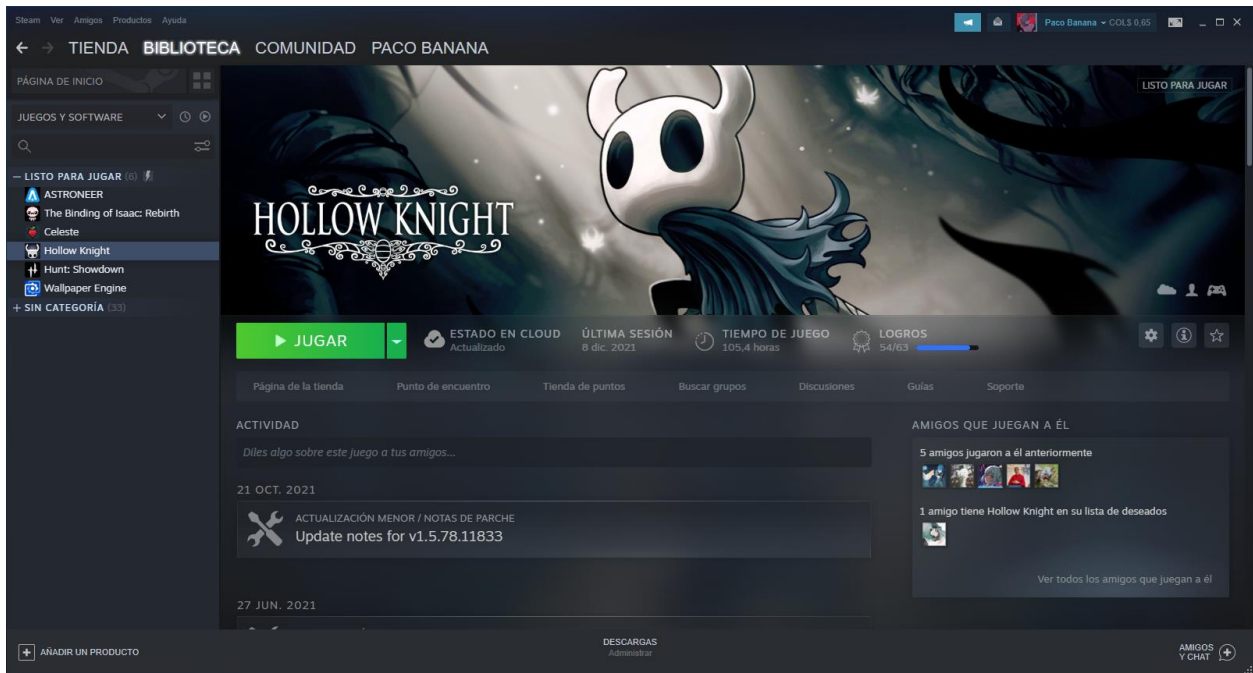
5.4.2.1.1. Steam

Steam is one of the most famous and the biggest online store for acquiring PC games. This tool was chosen because of the flexibility to share the game library with the students, allowing them to play without paying anything and using only a copy of the game for each one of them. The only requirement for students is to create a steam account and log in on their PCs.

5.4.2.1.2. Steam's first screen:



5.4.2.1.3. Steam's library presenting Hollow Knight

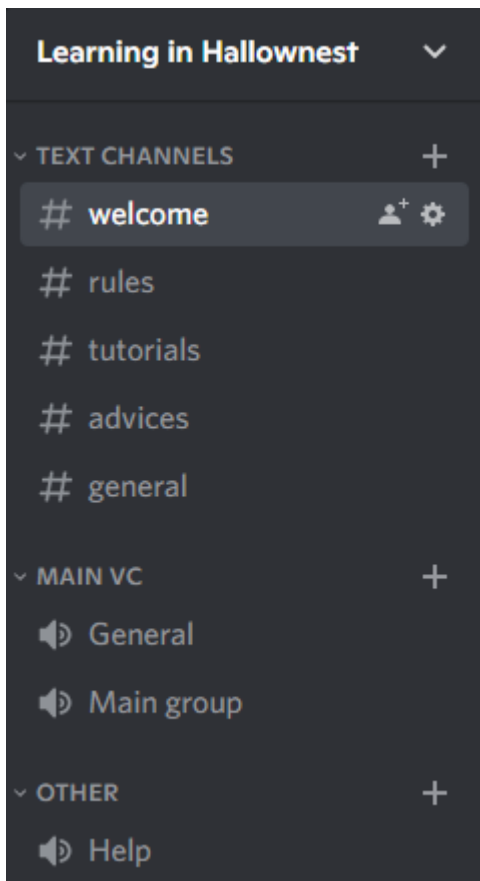


Every student will see a screen similar to this one when the game is shared with them.

5.4.2.1.4. Discord

Discord is a free app for PC and mobile platforms that works as an instant messaging tool. This app was designed for gaming but achieved to extend to other areas like education. This app was chosen because it allows the creation of a private server with roles, text and voice channels for both the teacher and students. This eases the monitoring process and the interactions during the sessions.

5.4.2.1.5. Discord server created for the research: Text and voice channels



Each text channel presented here was created with a specific objective for the research and carefully filled with resources, in-game objectives and general information. In general terms, #welcome channel was created for giving a welcome to every participant using an automated

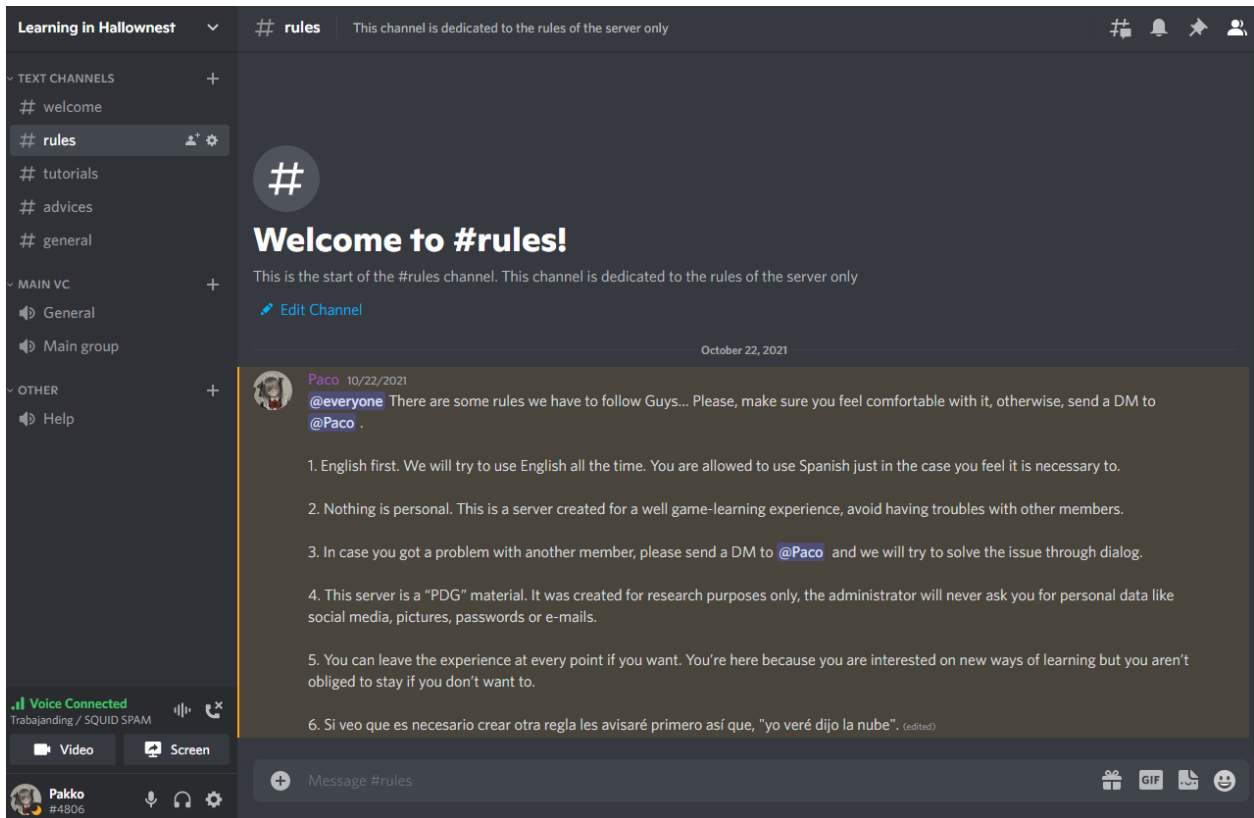
message; #rules channel describes the rules that guided the activity and the behavior while interacting in the server; #tutorials channel was used for the teacher as a resource (such as walkthroughs, screenshots and instructions for reaching optional in-game objectives) repository; #advices channel was used for posting the main in-game objectives with instructions and screenshots of “how to reach”; finally, #general channel was created for the free interactions among the teacher and participants (such as setting the session dates, sending reminders and asking questions).

General, Main group and Help voice channels were used for the “in-session” interactions because this feature has the same mechanic as a virtual call. General just for chatting with the students, Main group for the class and Help only for offering help to students.

5.4.2.1.6. Text channel #rules

Discord allows to pin messages in every text channel created, making it easier to communicate something to the group and maintain it even when new messages arrive.

This specific screenshot shows the structure of one of the channels of the discord server used for this research, the “#rules” channel. This presents a giant pinned message allowing to read the rules that every member of the server has to follow in order to maintain the order along the experience.



5.4.2.1.7. Text channel #tutorials

This specific channel was created for giving the students some resources for a better comprehension of the in-game objectives. The teacher gives hints, instructions and details about what to do in order to achieve something, every member of the server is able to see it without any problem.

tutorials | Tutorials for those who feel lost in Halloweenest. # 🔔 🌟 👤


#

Welcome to #tutorials!


This is the start of the #tutorials channel. Tutorials for those who feel lost in Halloweenest.

[Edit Channel](#)

October 22, 2021


 **Paco** 10/22/2021
[@everyone](#) Paco will update this channel with some tutorials you will see along the game. Keep an eye on this channel for more information.

October 30, 2021

 **Paco** 10/30/2021

1. Find the Forgotten Crossroads Stag Station and see what The Last Stag have to say...

Stag Stations are the way you can travel as fast as the game let you. Try to find the station of FC and you will be able to go from Dirtmouth to Forgotten and vice versa. Ah, you will need some money in order to open the gate and call the Stag



5.4.2.1.8. Text channel #advices


Advices channel was dedicated to every main in-game objective for each session. Some instructions and images were added for better comprehension. The only member able to send messages on this channel is the teacher for preventing flooding or spam and letting the objectives get lost.

advices Same as tutorials but built by everyone.

Paco 10/30/2021


1. Meet the first boss, The False Knight and defeat him

You can look for this guy in the middle of the map of Forgotten Crossroads, taking the right path from Cornifer's position until you see some space to go up. Take then the left path and you will see there is only one way... You will meet him at the end of it.



2. Manage to reach the second location of the game, Greenpath

Once you defeat the False Knight, you will be meeting a little shaman who will give you the ability to shoot soul, you will need it. Take it completing the dungeon and find the entrance to Greenpath. You can look for it at the left side of the Forgotten Crossroads map (up and left from the Cornifer's position)

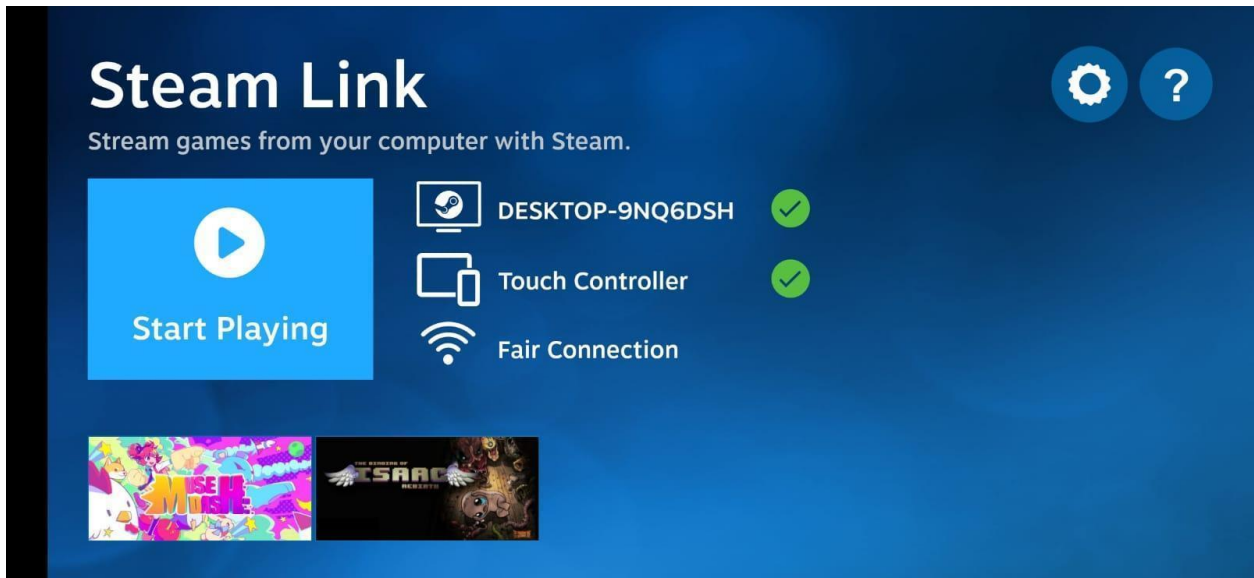


3. Meet for the first time with Hornet

5.4.2.1.9. Steam Link

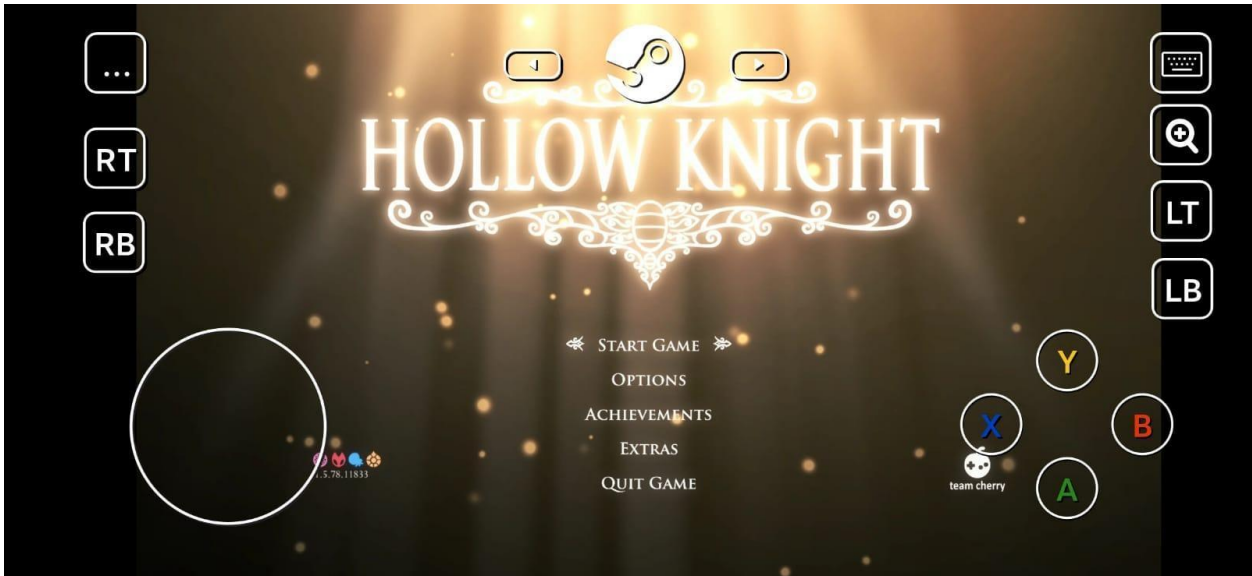
To prevent students from having technical issues while running the game, Steam link is the solution for that. Steam link is a mobile app that works like steam but only for playing. Students can connect their phone via Wi-Fi to teachers' PCs to stream the game and play it.

First, the student has to go to the app store or play store and download the Steam link app, install it on their phone and start the app:



Once the student gets the app, the teacher will provide a code for connecting to the PC and the student will be able to use the steam functions:

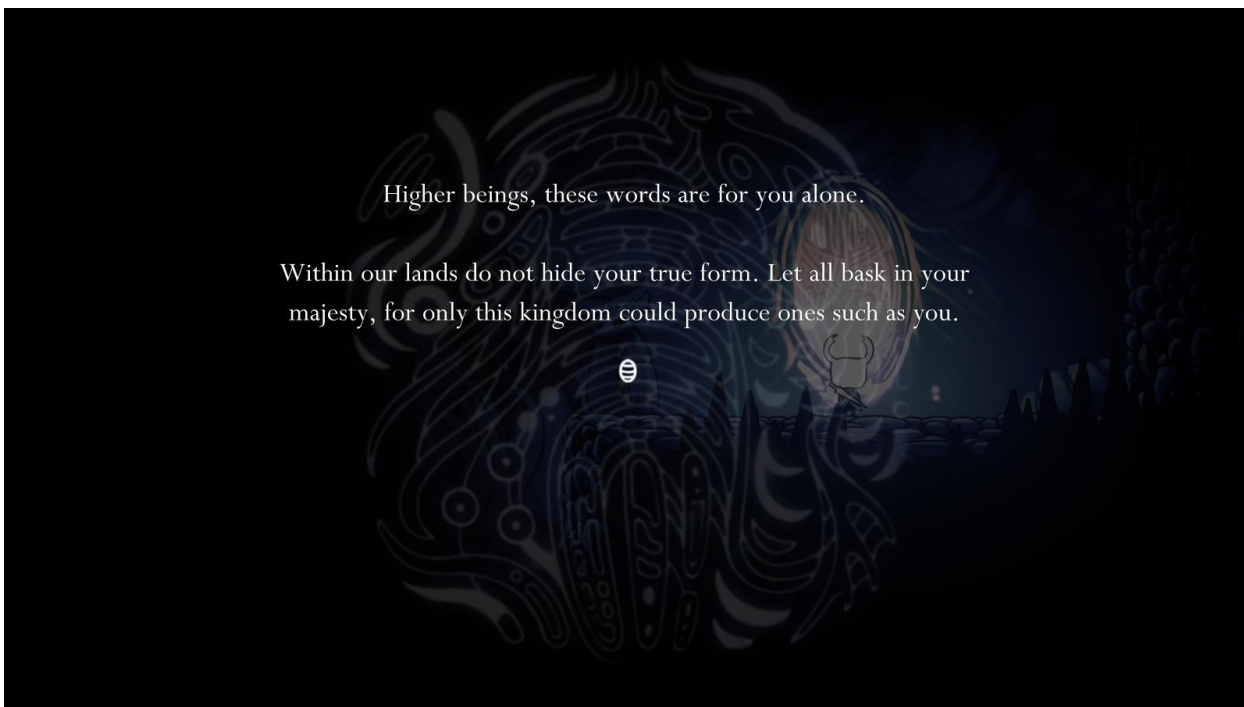




5.4.2.1.10. Hollow Knight

The nature of the game was explained in the Theoretical framework part. This game was chosen because it implements basic mechanics, easily understandable. The game also has a very intriguing story which can be accessed from the very start of the game thanks to the dialogs presented from the tutorial to the end.

Students can take their time to read and advance at their rhythm. This game presents a “nonlinear” exploration system, only allowing the player to discover new areas when doing specific tasks. All the in-game objectives were planned thinking about this specific tasks in a way that every student could achieve them.



5.4.3. Step 3 - Implementation of the didactic sequence

An Implementation for the didactic sequence which took place from 26th October of 2021 to 6th November of 2021 completing a week and a half with three participants from the different undergraduate programs of the university. It is important to highlight that this implementation was made via virtual meeting using the discord server due to the pandemic emergency; the teacher set three different days for each session and every participant connected to the discord server using their own PC or device.

5.4.4. Step 4 - Final Diagnostic

A final diagnostic stage took place in the last session. This diagnostic is similar to the first one done at the beginning of the experience, with a clear difference between questions that emphasize the final motivation level of the students in reference to learning English with activities mediated by a video game.

5.4.5. Step 5 - Analysis

Finally, analyzing all the information gathered in surveys, focus groups, and the field journal, a final paper describes the motivation of a group of students towards learning English through the use of the video game Hollow Knight.

5.5. Instruments

The data collection techniques used for the study were two surveys at the beginning and the ending of the sessions; two focus groups at the middle of the experience and the end of it; two tests for checking knowledge and final exam, and a field journal for registering events along the sessions. Summarizing, these instruments gathered qualitative and quantitative information about

the conception of students while facing the activities with video games, their experience with games, dedicated time to the activities, impressions about the sessions, and the results of the experience itself.

5.5.1. Surveys

Surveys were crucial as the first entry of data, allowing to see how the students could respond to the didactic sequence; it provided information about how many hours students were disposed to use in order to play a game with the learning objective in mind. Moreover, surveys also proportionated information about the knowledge of students in reference to video games and the English itself, giving a wide panorama of the group to the researcher while introducing them to the sessions. On the other hand, it also gathered precise results from the perspective of the students. We have to take into account that each survey was made on Google forms and sended to each student for answering.

The questions that the first survey followed could be summarized in:

- Are you motivated with your English classes?
- Do you like to play video games?
- Would you like to use video games for your English classes?
- How much time are you minded to invest in playing a video game?
- Are you motivated to participate in a class for learning English mediated by a video game?
- Which kind of activities motivate you the most in your English classes?
- Are you motivated to play video games?
- From 1 to 10, What level of motivation for learning English do you think you have before starting this experience?

These questions were structured for measuring the willingness of the candidates and also

motivation, related to participating in this experience. This survey takes place before the first session.

The questions for the final survey could be summarized in:

- Did you feel engaged with the English classes of the experience?
- Did you like to use video games for your English classes in this experience?
- How did you feel while participating in a micro curriculum for learning English mediated by a video game?
- Did you feel motivated while learning when it was mediated by a video game?
- From 1 to 10, What level of motivation for learning English do you think you have after this experience?

These questions were structured for measuring the engagement level of the candidates and also the motivation related to participating in this experience. This survey takes place after the last session.

5.5.2. Focus groups

Focus groups were the tracking tool that gathered information along the sessions and complemented the surveys, the students and the researcher were allowed to suggest how to improve or modify the direction of the session while driving it to a success point at the middle of the experience. In addition, another meeting was scheduled for the last session, making it more accessible for students to attend and allowing the researcher to follow the progress of the group.

The first focus group took place in the first session of the didactic sequence, the questions could be summarized in:

- What are you expecting from this experience?

- What is your conception of learning with video games?
- Do you feel motivated to learn English when it is mediated by a video game?

These questions were structured for knowing the expectation of the candidates and also the motivation, related to participating in this experience.

The final focus group took place in the last session, the questions could be summarized in:

- Did you like this kind of experience?
- Did the experience fulfill your expectations?
- Did you feel motivated for learning English while playing a video game?

5.5.3. Field Journal

A field journal (see appendix 9.1. Journal Entries) was used for collecting information on the researcher's experience during the investigation. It is important to take this into account because the information reflected there represents a powerful data provider for the investigation.

Moreover, it complemented the tracking process of the focus groups from the researcher's personal position.

5.7. Ethical Considerations

The personal information of participants was used only for academic purposes. None of the students was obliged, threatened, or violated for reaching any of the objectives previously presented. Every stage and purpose were dialogue with each participant, all of them acceded to participate willingly.

The participants initially signed an informed participation consent (see appendix 9.2. Informed Consent) since the information demanded in the questionnaire required them to express

individual opinions based on personal experiences as students in the English program from Icesi University. Surveys were made on Google Forms and focus groups via Discord call and also recorded. The information indicates perceptions and only the first name of each participant.

Because of the academic nature of this research, all information provided by students in the online surveys, focus groups and sessions, was protected from unauthorized disclosure, tampering, or damage. Additionally, all participants were informed that the research tutor, Brayan Portilla Quintero, guided the elaboration of this thesis report.

6. RESULTS

Based on the information gathered and recorded with the different tools like surveys and focus groups, these paragraphs are dedicated to analyzing and processing that information. The way this information is analyzed was specified in the METHODS but organized and synthesized in the RESULTS.

6.1. Step 1 - Diagnostic

As stated in the methodology section, an initial diagnostic was made by asking the students about their motivation level towards learning English and playing video games. Questions 1,5,7 and 8 were used for measuring the motivation; questions 2,3 and 4 were used for knowing the students' perceptions about video games. I will present the information gathered from the three participants who answered the survey and to give my own interpretations about this in the sub sections below: The researcher made a comparison between surveys and focus groups:

Surveys

According to the answers of the students, the perception about video games and the use of those while learning English was an interesting proposal at a first glance (see appendix 9.4. Q5), they never used it in a class, but they were excited to do it. Some of them were concerned about how the teacher would take control of the class if the students got distracted or took advantage of the game time and not attending the lesson itself. In general terms, the motivation level for attending English classes at university was very low (see appendix 9.4. Q1), some students expressed a lack of innovation, new knowledge, and a tremendous monotony. However, the motivation for learning English by themselves was very high and they were impulsed by other

resources different from the academic aspect such as music, conversations and even playing video games.

On the other hand, thanks to the information gathered in the last survey, the researcher realized that the perceptions, engagement, and motivation level, were highly influenced in a positive way by the videogame used (see appendix 9.4. Q8). Some students expressed that they were not under the pressure that a class put on their shoulders, they were enjoying playing, learning and attending the lessons. Finally, this information allowed the researcher to measure the motivation of the students by using a didactic sequence mediated by the use of a video game, which is the main objective of this research (see appendix 9.5.). Based on the last question of the survey (see appendix 9.5. Q5), students qualified with 10 their motivation level which let us infer that they clearly felt an increment on their motivation level towards learning English by using a video game making the comparison with the initial motivation level.

Focus groups

According to the answers recorded and obtained in the dialogs from the first focus group, the motivational level presented a few minutes before starting the second session were very high and clearly expressed by the students (see Results 6.3.2. development section). They said that they enjoyed the video game in the first instance even when some of them were not acquainted with video games, they were excited to bring their experience to the class and see what kind of activities were prepared for them.

The motivational level presented and expressed by students at the final focus group was very high as expected (see Results 6.3.3. development section.) They said that it was strongly influenced by the use of the game, allowing the researcher to link the testimonies and the

objectives proposed for reaffirming that this hypothesis of a didactic sequence designed and mediated by the use of a video game could influence in a positive way for learning english was correct.

6.2. Step 2 - Design of the didactic sequence mediated by the Video Game Hollow Knight

For the better understanding of this didactic sequence, some details were added:

This didactic sequence recovers the past experiences of the students while playing the video game. Which means that the teacher must encourage students to play a reasonable amount of time in order to generate new knowledge about the game which will be transformed into new language knowledge.

The researcher chose specifically “Hollow Knight” because he had a great understanding of the game, their mechanics and, the researcher passed the process of replaying the game while thinking about possible applications of the game content for teaching a new language. What I want to get to be that this sequence was made based on my game knowledge. It is not mandatory to use the same game, I am trying to provide a new tool for future researchers/teachers who want to implement this kind of structure for promoting motivation in class.

Each session has three parts: Topic, Objectives and Activities. Depending on the teacher's objectives, this sequence can be adapted to the teacher's or students' necessities since the activities and objectives appeal to the game experience. You have to take into account that every session was made by thinking on digital tools I will explain in their respective section.

SESSION 1 - DIAGNOSTIC

Topics for Session 1 (65 minutes approx.)
- English and motivation diagnosis
Specific Objective(s): Students are going to be able to
- To identify the relation between their game experience and learning a foreign language
- To identify their motivation level towards playing and learning English
Activities, resources and estimated time
<p>Description:</p> <p>The teacher starts explaining the objectives of the research, why and how of the dynamics applied in every session to the students. Plus, the teacher asks the students about their expectations on the experience of learning English mediated by the use of a videogame. 5 mins</p>
<p>Pre:</p> <ol style="list-style-type: none"> 1. The teacher asks individually about “what is the motivation level of the students for learning English in their current courses?” and then marks from 1 to 10 (being 1 the lowest level and 10 the highest level) based on the motivation level of each student for better interpretation of the data gathered later. 5 mins 2. The teacher asks about “what students expect on the hold process and the upcoming sessions based on previous experiences. Moreover, the tools they know for working remotely. 10 mins
<p>While:</p> <ol style="list-style-type: none"> 1. The teacher will introduce the students to the discord platform and how to use it. Once did it, the teacher will start a streaming on the platform for the students, presenting the game mechanics and giving some first impressions of the game itself. 15 mins 2. The teacher will ask the students about their impressions of the game and the different mechanics to develop during the sessions. 10 mins 3. The teacher will explain which programs students have to use and install, followed by a micro tutorial focused on how to enter to the Steam platform and start playing Hollow Knight. 10 mins
<p>Post:</p> <ol style="list-style-type: none"> 1. The teacher and the students will set the objectives to be achieved within the game. Also, they will set the schedules for the next two sessions in a way that each student can reach the objectives and attend the session. All the information has to be posted on the discord server. 10 mins

Materials:

Discord server “Learning in Hallownest” - Link: <https://discord.gg/GJfM5YVcbr>

1. **Link to the first diagnostic survey** - Link: <https://forms.gle/mQqUyLoMMPqR3mpW6>

SESSION 2 - AFTER PLAYING

Topics for Session 2 (65 minutes approx.)
- Recognizing the videogame environment
Specific Objective(s): Students are going to be able to
- To identify vocabulary for simple descriptions
- To identify the descriptive sentence structure
- To describe characters and the landscape by using the descriptive sentence structure
Activities, resources and estimated time
Students' preparation:
<ol style="list-style-type: none"> 1. Students have to play a minimum of two hours (approximately) for reaching the in-game objectives proposed (from “Dirtmouth”, passing by “Forgotten Crossroads” to “Greenpath”) in the past session. Remember you can monitor their activity through the steam client. 2. If students have troubles, the teacher asks the students how their process is in order to help them if it is necessary.
Pre:
<ol style="list-style-type: none"> 1. The teacher will ask students what their first general gaming experience was like. 5 mins
While:
<ol style="list-style-type: none"> 1. The teacher will show them, helped by a presentation, English vocabulary according to the level of proficiency of the students. This vocabulary will be related to the content of the game and will facilitate the construction of descriptive sentences that will be produced later. 20 mins 2. The teacher will propose an activity where students will choose a character and an area of the game to make two descriptions. Each one will be presented with a slide in google slides so that everyone can do it simultaneously. 30 mins

Post:

1. The teacher will ask the students how they felt about this first activity based on their game experience. Moreover, the teacher will set game objectives for the next session and port them on the discord server. **5 mins**

Materials:

1. **Hallownest Presentation** - Link:

<https://docs.google.com/presentation/d/12d7HBDNHr0wDvr2RYbFUCeCXr0ev9GuQ3XsSrxoFToQ/edit#slide=id.p>

SESSION 3 - NEW EXPERIENCES AND FINAL DIAGNOSTIC**Topics for Session 3 (65 minutes approx.)**

- Sharing the videogame experience

Specific Objective(s): Students are going to be able to

- To express experiences and write down them by using the tense structures given (descriptive vocabulary and simple past) for redacting a letter (producing a short text) based on the game experience.

Activities, resources and estimated time**Students' preparation:**

1. Similar to session two, students have to play a minimum of two hours to reach the in-game objectives proposed in the past session (From "Greenpath", returning to "Forgotten Crossroads" and finally reaching "Fungal Wastes.").
2. If students have troubles, the teacher asks the students how their process is in order to help them if it is necessary.

Pre:

1. Teacher will ask students how their second overall game experience was. **5 mins**

While:

1. The teacher will show the students the instructions on how to structure a letter, the vocabulary used and the elements they should add to the letter. Before providing all the information, the teacher will ask the students what elements they can identify in the example. **20 mins**

<p>2. The teacher will provide the students with a google slides presentation where everyone can write their letter, decorate it and correct it simultaneously. The content of the letter will be entirely based on the experiences and knowledge the students had while playing the game. 30 mins</p>
<p>Post:</p> <p>1. The teacher will ask the students how they felt during the whole experience. In addition, he/she will ask for feedback through a short interview. 10 mins</p>
<p>Materials:</p> <p>1. Hallownest presentation 2 - Link: https://docs.google.com/presentation/d/14TFsvO4aROIX6tlOqbjwzADvT9eYyPExdr1qEIegReU/edit#slide=id.p</p> <p>2. Link to the last diagnostic survey - Link: https://forms.gle/5xkh7snhg3vCLFKM7</p>

6.3. Step 3 - Implementation of the didactic sequence

6.3.1. Session 1 development

Before this session, the teacher invited the students to enter in the discord server to set up the date of the sessions and started to fill the channels with the pertinent information.

In this session, the teacher and students set up steam accounts, library issues and shared the game. The teacher also explained the dynamic of the experience and proceeded to ask some questions to the group.

Every interaction was made through the discord server using the voice channels and the “sharing screen” function.

The following information is based on some fragments of the students’ testimonies:

The first student is “E”, they presented a low motivation for attending the English classes at university, they said that “English classes are monotonous, based on books and unattractive for

me.” However, they expressed high motivation for this new experience but they were letting the teacher know some concerns about it such as “I do not know how a teacher could guide a class in which the students have to play in”. The main reason they are motivated to learn English is to consume English content, “I learned English by myself, more than attending class, the only skill I developed in class was writing.”

We can infer that there is a motivation for learning English by themselves but not in a traditional way. They make it explicit that they are motivated to learn not in the university but in other environments, this is an important observation because we could take this as the first approach of the students to learn English by using a new way of content consumption. I consider that we as researchers/teachers have to take advantage of this kind of element for fostering the motivation towards learning English.

The second one is “**J**”, they presented a low motivation for attending class, “virtuality is not helping at all for my classes, the teacher put his effort to make the classes interesting but I am not motivated at all.” Moreover, they said that “I know that some students could take advantage of this kind of activity, they could use the time just for playing and not for learning. I do not know how a teacher can take control of it”. Their motivation for learning English is based on interactions: “I like to practice my English by talking with people and playing video games to acquire new vocabulary”.

The third one is “**L**”, they presented a very low motivation for attending class: “I never found anything neither in activities nor in knowledge”. Related to these sessions “I would like to know what we can do here” they said. Finally, the main motivation for learning english was music, “I really like to listen to music in English, that is my true motivation. I do not know so much about games”.

6.3.1.1. Objectives for the session 2

Once every student answered the questions related to the motivation levels, the teacher gave the in-game objectives for the next session:

This information was posted on the #advices channel

Let's get warmed @everyone!!! These are our objectives for the First session. Once you reach it, you can continue playing... Or not huh.

1. Meet the first boss, The False Knight and defeat him

You can look for this guy in the middle of the map of Forgotten Crossroads, taking the right path from Cornifer's position until you see some space to go up. Take then the left path and you will see there is only one way... You will meet him at the end of it.

2. Manage to reach the second location of the game, Greenpath

Once you defeat the False Knight, you will be meeting a little shaman who will give you the ability to shoot soul, you will need it. Take it completing the dungeon and find the entrance to Greenpath. You can look for it at the left side of the Forgotten Crossroads map (up and left from the Cornifer's position).

3. Meet for the first time with Hornet

As you explore Greenpath you will see a mysterious bug with a red cloak. Try to find her and ask for some answers.

Those are the main objectives and here we have some optional objectives, you can chose if do it or not, it is not mandatory at all:

1. Find the Forgotten Crossroads Stag Station and see what The Last Stag have to say

Stag Stations are the way you can travel as fast as the game let you. Try to find the station of FC and you will be able to go from Dirthmouth to Forgotten and vice versa. Ah, you will need some money in order to open the gate and call the Stag

2. Save Zote from the Giant Fly

Here you have this guy in the mouth of a giant fly... You can save him or not, it is up to you hahahaha. This fight could be troublesome because of the mechanic of jump and hit down. If you save him you will unlock some special interactions ^^

3. Find the Greenpath Stag Station

Same as the FC station, look for the stag signals and follow the arrows
Remember to check the Advices channel to see some screenshots and tips about how “to reach the objectives”.

6.3.2. Session 2 development

This session started with the teacher asking for the first impressions of the game. Some encouraging data was obtained from the testimonies of the students:

E: "I had a really good time with the game, I enjoyed the mechanics and the sense of exploration. I felt so much satisfaction while playing."

L: "It was a good game for me even though I am not a person who likes games so much. This game motivated me to be better while playing, I really liked it."

In general, two of the students said autonomously that they had a high motivation level for keeping playing the video game. The teacher only had to ask one of them about this situation and he expressed the same as their pairs while explaining some difficulties he had in his last game session. Based on these testimonies, the teacher can infer that even when the motivation for playing was clearly expressed, the teacher had to check the motivation for learning English by asking them about it and then start the lesson, all of them said that they wanted to practice English in order to understand some parts of the game. Later, while doing the activity, one of the students asked a question about the specific task of the lesson:

L: "You are telling us that we have to choose a character and describe it with the vocabulary. Do we have to formulate sentences? Can I use other images?"

This specific interaction suggests that students cannot be delimited by the teachers material, even if we present resources for activities we have to clarify that they are free for using their own resources; moreover, it is necessary to adjust the statements of the activities and give complete details for students. This is done in order to maintain the willing of express what they have to say and avoid interactions of this kind for the better development of the activity.

When the lesson finished, the teacher asked for some feedback about it:

L: "I did not understand some words while playing but I decided to look for it by myself because I wanted to understand everything in the game. I liked the activity."

E: "It was the same for me and I did not feel the pressure of having something for the next class. I was playing and I was learning at my own steps, I was able to express my experience and not only for a grade. I think this is a good method for encouraging people to learn."

Not as the expected feedback but the students let the teacher know that they were comfortable with the game session and the activity of the lesson. Taking into account that one of them said that he was motivated for learning by himself and the other one thought that the "playing method" was a good encouraging factor, the teacher can take this as a good signal for continuing with the implementation only with minor changes.

6.3.2.1. Objectives for the session 3

Once finished the session 2, the teacher gave the in-game objectives for the session 3:

This information was posted on the **#advices** channel

For this time, there are only 2 main objectives for this session and 2 optional objectives:

1. **Once you obtain the dash ability from Hornet, return to the Forgotten Crossroads and follow the path to the Fungal Wastes.**

You must have the dash for reaching the entrance of the next zone, otherwise you won't be able to enter.

2. **When you have entered the Fungal Wastes**, explore the zone and try to find the Leg Eater which is near a bench. See what he has to say.

3. **OPTIONAL** - At the very bottom of the Fungal Wastes you will find a charm called "Dashmaster" Try to get it if you can.

4. **OPTIONAL** - For the last objective, this will be a little bit difficult: In the Fungal Wastes, try to find some signals which leads to the Mantis Village. Once you are there, find the way to the warehouses of the mantis and obtain the Mantis Claws.

If you do this correctly, you will have the opportunity to challenge the Mantis Lords. Defeat them and claim the respect of the mantis.

6.3.3. Session 3 development

This session started as the last one, with the teacher asking for the first impressions of the game.

Some encouraging date was obtained from the testimonies of the students:

L: "It was so hard for me. I am not good at games, and I could not reach all the main objectives. But it is ok, I like the game and I want to improve myself. I did not think about the class, I was just enjoying the game."

J: "When I was playing, I was thinking about the class but at the same time enjoying the game. In general terms my experience was good. I did not have a bad time."

E: "I had a really good time, but the Hornet battle was so hard for me."

The teacher has to take into account that some parts of the game could be difficult for some of the students. A readjustment of the objectives has to be a permanent consideration for avoiding students' frustration and keeping the motivation levels in a good status. All of them was enjoying their game experience and this can be taken as a good signal because they knew this was for a class but they did not feel any pressure or something like that; the teacher has to aim to this in order to recover a good reconstruction of the experience.

During the development of the activity:

- Like in the last session, some students had some troubles while writing but not asking for help. I have to think about a tool or resource for avoiding this and promote participation on the server. I decided to help some students to correct some mistakes without asking.
- The students did not have any big problem while developing the activity for this part, they were engaged and worked very well while producing their texts.
- I asked for some feedback for the complete experience. I explained why I did not give a specific grade for this but I was looking if they were achieving the language objectives with the productions they made.

-

Finishing the lesson and the experience:

We agreed to say that this game encouraged us to learn new vocabulary to get more immersed. Both learnings were fed and promoted (in-game and externally). The teacher has to give feedback to the students in every activity, some students said. The students also liked the flexibility of these sessions as a very important factor, and we could change it for the sake of

every student. All the students would like to repeat an experience like this, and they said that possibly a course at the university based on this model could be a good idea.

A lot of new elements that could interfere with the implementation were emerging along the process, it has to be taken into account for future designs and try to avoid obstacles such as frustration or distractions. The teacher can conclude that the motivation levels towards learning English was successfully incremented by the implementation of the didactic sequence mediated by the Metroidvania video game. A better analysis of this conclusion will be presented in the next section “Reflections and Conclusions.”

Finally, the data collected in terms of motivation were really favorable. All the instruments used to measure motivation, added to the students' testimonies, point to the fact that the results obtained allow us to affirm that both, the design and the implementation of the sequence, was a success. Students' levels of motivation to learn English increased, they stayed engaged while playing and they were willing to bring their experience to a learning environment.

7. REFLECTIONS AND CONCLUSIONS

This research tests the effectiveness of a didactic sequence mediated by a Metroidvania video game called Hollow Knight, in order to measure the motivation level of a group of undergraduate students of different careers such as systems engineering, telematics engineering and psychology, who attend English classes offered by the Icesi University in Cali, Colombia. In addition, this study provides a powerful tool for English teachers and researchers who are interested in implementing similar ideas, conducting research related to the topics of motivation and video games or to foster and increase motivation levels in students through didactic sequences mediated by video games.

Through the implementation of this didactic sequence mediated by the video game Hollow Knight and the analysis of the different surveys, focus groups and testimonies collected, I riskily conclude that the levels of motivation towards learning a second language such as English can be positively increased through the use of video games. However, as evidenced in the different sessions, the academic environment should allow students to bring their own gaming experience to apply it to issues related to learning English and that is where the planning and implementation of an appropriate sequence guided by the teacher is crucial.

The surveys of session one and session three allowed me to observe the levels of motivation that the students had. In the first survey, the motivation levels to attend their English classes were not very high, they preferred to learn on their own and in spite of this they decided to attend the three virtual sessions. The second survey revealed that thanks to this type of experience, the level of motivation of the students towards learning English increased positively, allowing me to

affirm that the proposed didactic sequence is effective in promoting the motivation towards learning English of English students at Icesi University.

The focus groups of session two and three, allowed me to hear from the students why they were not motivated to attend their classes, and several of them agreed that the traditional model does not propose an environment that motivates them to learn the second language. However, at the end of the implementation, the students expressed their satisfaction and suggested the implementation of more experiences similar to this one, since they felt comfortable while learning and putting their experience acquired in the video game on stage. Once again, it is corroborated that the effectiveness of this type of didactic sequences mediated by video games increases the motivation levels of students to learn English.

This research could also mean a before and after for the English courses taught at Icesi University. Not only because this type of experience promotes the autonomous learning of the student when playing, but also because it manages to take advantage of that game time to use it in the academic context of the university, diversifying the possible tools that English teachers can use for their classes. It should be remembered that this study was carried out during the pandemic caused by Covid-19. Therefore, the use of this type of sequences in the classroom may carry certain technological implications such as providing students with a digital device; it may be necessary to dedicate more classes time to play because in some cases it is not possible to establish specific schedules for all students in an average course or perhaps provide different spaces between classes so that students can have their gaming experience. Although the motivation of the participants was favored, it is advisable to think that not all students could easily access to play or will have a low affinity with video games, and this may imply the possible failure when implementing a didactic sequence of this type.

Note that the design of this kind of sequences could present a great flexibility, allowing the student to choose their own game. Giving this freedom to the students could mean a factor that enhances motivation in a better way, because it is directly related to the main interests and likes of learners. However, we have to take into account that an experience like that designed for a big group (30 students e.g.) will represent a big challenge for the designer, not only because it will have to direct several students but also for the objectives and activities alignment. We could say that this idea needs to be explored by using different games at the same time but it will imply a rigorous game mechanics analysis and learning for it.

Finally, in addition to describing the motivation of a group of students at Icesi University to learn English through a didactic sequence mediated by a *Metroidvania* video game, this research invites future researchers and teachers to design new experiences based on it. It should be noted that it is not mandatory to use the same video game or even use the same tools. I am confident that this could be the basis for many other investigations that decide to diversify what has already been proposed in this one.

8. REFERENCES

- Ames, C.A. (1990). Motivation: What Teachers Need to Know. *Teachers College Record: The Voice of Scholarship in Education*, 91, 409 - 421.
- Bruner, J. (1974) *Toward a Theory of Instruction*. Cambridge Massachusetts. The Belknap Press.
- Bueno Gutiérrez, D. (2018). *El Diseño y el Arte en los Videojuegos*.
http://oa.upm.es/50803/1/TFG_DARIO_BUENO_GUTIERREZ.pdf
- Burns, A. (2009). *Doing action research in English language teaching: A guide for practitioners*.
Routledge.
- Cossu, S. M. (2019). *Game Development with GameMaker Studio 2: Make Your Own Games with GameMaker Language (English Edition)* (1st ed.). Apress. <https://doi.org/10.1007/978-1-4842-5010-5>
- Dörnyei, Z. (1990). Conceptualizing motivation in foreign-language learning. *Language learning*, 40(1), 45-78.)
- Dörnyei, Z. (1994). Motivation and motivating in the foreign language classroom. *The modern language journal*, 78(3), 273-284.
- Ellis, R., & Ellis, R. R. (1994). *The study of second language acquisition*. Oxford University.

- Exploiting Adventure Video Games for Second Language Vocabulary Recall: A Mixed-Methods Study, 2017. [ebook] Routledge Taylor & Francis Group. Available at: <<https://www.tandfonline.com/doi/full/10.1080/17501229.2017.1359276?scroll=top&needAccess=true>> [Accessed 22 September 2020].
- Huang, H. B. (2010). What is good action research. *Action research*, 8(1), 93-109.
- Jiménez Quintero, J. and Ricaurte Pineda, S., 2012. Videojuegos Como Vehículo Para El Aprendizaje De Vocabulario En Inglés. [ebook] Available at: <<http://hdl.handle.net/10554/12209>> [Accessed 22 October 2020].
- Ray, N. L. (1992). Motivation in Education.
- Revilla Expósito, M., 2019. Los Videojuegos En La Enseñanza De Segundas Lenguas Un Estudio Exploratorio De La Adquisición De Segundas Lenguas A Través De Los Videojuegos. [ebook] Available at: <<http://riull.ull.es/xmlui/handle/915/17428>> [Accessed 22 October 2020].
- Rivas Betancourth, D., 2016. DISEÑO DE UNA SECUENCIA DIDÁCTICA PARA EL APRENDIZAJE DEL INGLÉS A TRAVÉS DE UN VIDEOJUEGO DIRIGIDA A NIÑOS DE NIVEL A2 EN UN CURSO DE EXTENSIÓN DE LA UNIVERSIDAD DEL VALLE. [ebook] Available at: <<http://hdl.handle.net/10893/9802>> [Accessed 22 October 2020].
- Universidad Icesi. (2017). Proyecto educativo institucional (PEI), 61.
- Wlodkowski, R. J. (1984). Motivation and teaching. Washington, D.C.: National Education Assosiation.

9. APPENDICES

9.1. Journal Entries

Entry 1

- It would be better if there were more details for every task or activity in order to avoid misleading or interruptions along the lesson.
- It seems like the students had some problems while writing but no one asked for help. Students were focused on working and adding their own resources but still using some of the given ones. Some students wrote more than the others but still reached the objective of the lesson.
- In general terms, students achieved to incorporate together their game experience and the language knowledge. I have to work on promoting the use of the server as a helpful tool.
- For the second activity, I changed the written activity for a spoken one due to the time we had available for the lesson. Some of the students preferred the written one and some of them preferred the spoken one... I have to have a plan B for this kind of situation.
- In general terms, they did very well but they had some problems with the English in this part. I have to promote a little bit more the interaction with the information they get in-game.

Entry 2

- I added a new slide for the icebreaker in order to have a better organization in the session. I will probably add more slides in order to assign one for each part of the session.
- It seems like, since this is a new experience for them, they expressed that they were motivated because they were learning and playing at the same time and not forced to do it.
- I will add some changes like more resources and details in reference to the tasks, I want to be more specific with the students. For the next lesson I will continue with the model proposed in order to see what happens.
- Now I think about what to do or what kind of assignments are appropriate for students that cannot attend the sessions. This could be a good consideration for future planning.

Entry 3

- During this part some students were presenting difficulties for describing the experience but only with some expressions, it would be better to add a resource in order to give them some advice about how to describe. Some of the students were engaged with the story.
- I have to take into account that some in-game vocabulary has to be explained in the sessions or to construct a glossary for students in a way that they can access it with ease.

- In general terms, I could say that the students are curious and motivated for playing and learning.

9.2. Informed consent model



AUTORIZACIÓN PARA EL PROYECTO: Motivation Towards Learning English Fostered in the Implementation of a Didactic Sequence Mediated by the Use of a Metroidvania Video Game in a B1-Level (according to the CEFR) Group at ICESI University

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• Perfil digital de la plataforma “Discord”	• Textos producidos	

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Los objetivos de la investigación son los siguientes:

Objetivo general:

Describir la motivación hacia el aprendizaje del inglés promovida en la implementación de una

secuencia didáctica mediada por el uso de un video juego Metroidvania en un grupo de estudiantes de nivel B1 (de acuerdo al marco referencial europeo) de los programas de pregrado de la Universidad Icesi.

Objetivos específicos:

- Diagnosticar la motivación del grupo de estudiantes de pregrado de nivel B1 hacia el aprendizaje del inglés antes de la implementación de la secuencia didáctica mediada por el videojuego Hollow Knight.
- Diseñar una secuencia didáctica correspondiente mediada por el videojuego Hollow Knight para el grupo de estudiantes de nivel B1 de los programas de pregrado de la Universidad Icesi.
- Implementar la secuencia didáctica mediada por el videojuego Hollow Knight para el grupo de estudiantes de nivel B1 de los programas de pregrado de la Universidad Icesi.
- Diagnosticar la motivación del grupo de estudiantes de pregrado de nivel B1 hacia el aprendizaje del inglés después de la implementación de la secuencia didáctica mediada por el videojuego Hollow Knight.
- Describir la motivación del grupo de estudiantes hacia el aprendizaje del inglés a través del uso de una secuencia didáctica mediada por el videojuego Hollow Knight.

Declaro que conozco los propósitos de la investigación de Juan Pablo Roldan Caicedo, y que estos no son ni serán con el fin de darle un uso indebido al material autorizado, ni distinto al descrito.

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Atentamente,

Firma: _____

9.3. First Motivation Diagnostic Survey

Link to the initial survey

<https://docs.google.com/forms/d/1gfM606jCdAc8XewmDavlfSRGVy1YtKNKeZO7p8XitsI/edit?usp=sharing>

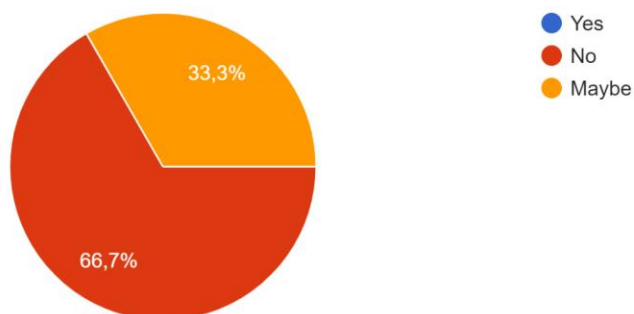
Final motivation diagnostic survey

<https://docs.google.com/forms/d/1GTvQ9G2ee5Bs1e5kuz-FqzH-cBwMEeYBzkC44Likue4/edit?usp=sharing>

9.4. Graphics and answers from 1 to 8 (first survey)

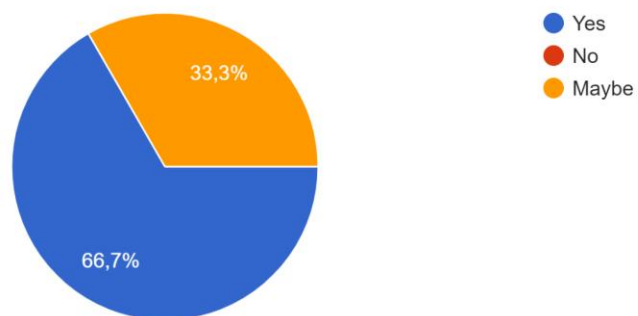
1. Are you motivated with your English classes?

3 respuestas



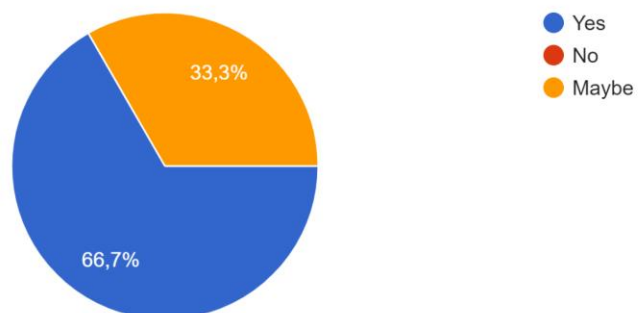
2. Do you like to play video games?

3 respuestas



3. Would you like to use video games for your English classes?

3 respuestas



4. How much time are you minded to invest in playing a video game?

3 respuestas

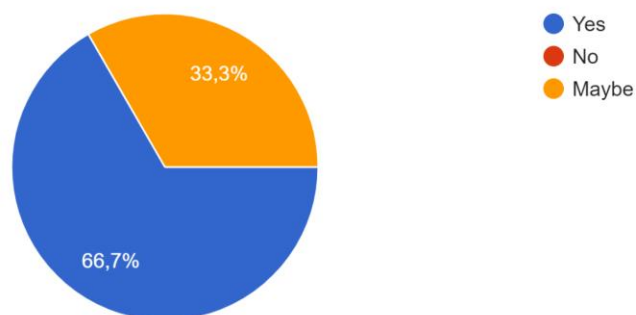
at least 2 hours between sessions

4 hours in the week

2 hours minimo

5. Are you motivated to participate in a class for learning English mediated by a video game?

3 respuestas



6. Which kind of activities motivate you the most in your English classes?

3 respuestas

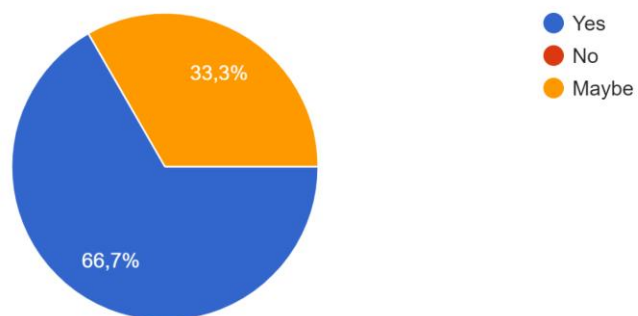
Using content that is interesting for me

I prefer to listen to music

Not in classes but talking with people and playing video games

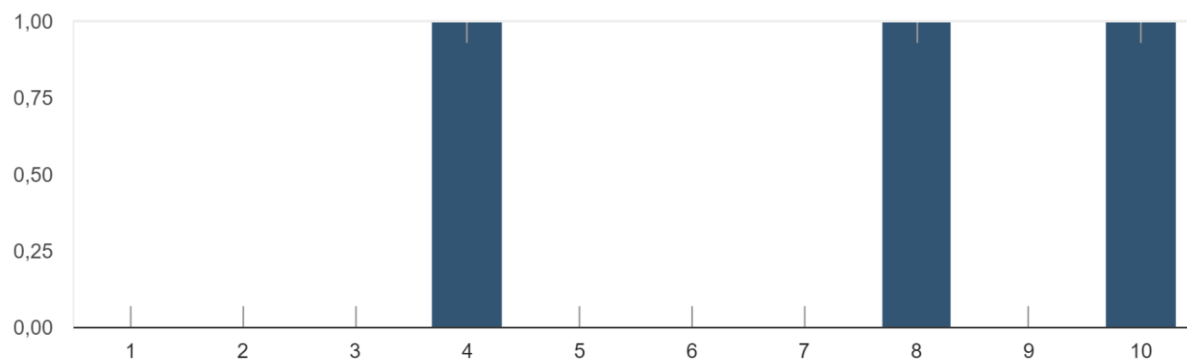
7. Are you motivated to play video games?

3 respuestas



8. From 1 to 10, What level of motivation for learning English do you think you have before starting this experience?

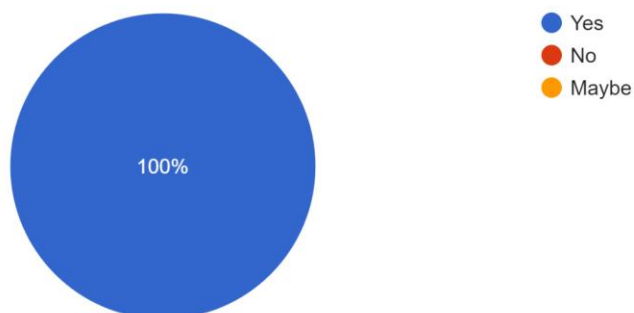
3 respuestas



9.5. Graphics and answers from 1 to 5 (final survey)

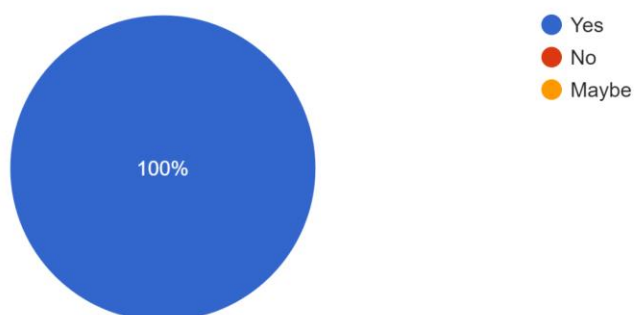
1. Did you feel engaged with the English classes of the experience?

3 respuestas



2. Did you like to use video games for your English classes in this experience?

3 respuestas



3. How did you feel while participating in a micro curriculum for learning English mediated by a video game?

3 respuestas

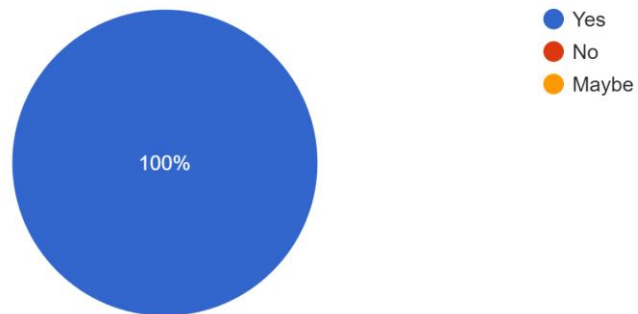
I felt good, it's a different experience from the normal in class

I liked it

In general it was a great experience, but I think it is important to add more feedback from the teacher to the students

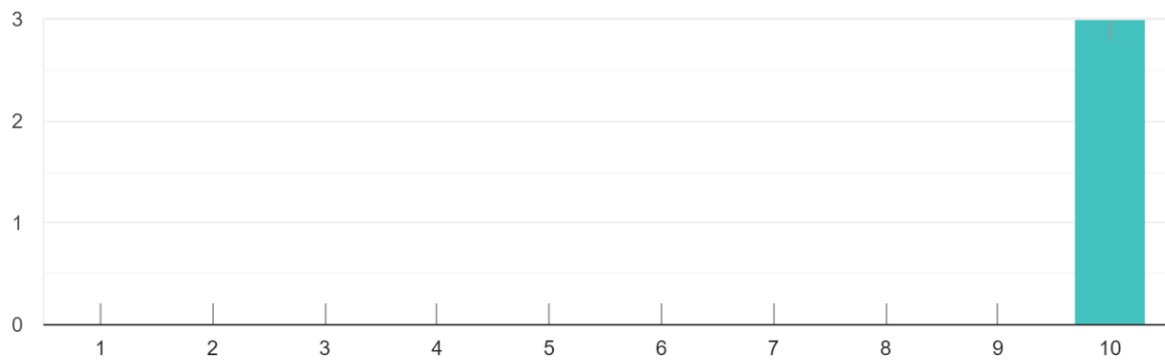
4. Did you feel motivated while learning when it was mediated by a video game?

3 respuestas



5. From 1 to 10, What level of motivation for learning English do you think you have after this experience?

3 respuestas



9.6. Presentations

First presentation - Hallownest Presentation

<https://docs.google.com/presentation/d/12d7HBDNHr0wDvr2RYbFUCeCXr0ev9GuQ3XsSrxoFToQ/edit#slide=id.p>

Second presentation - Hallownest Presentation 2

<https://docs.google.com/presentation/d/14TFsvO4aROIX6tlOqbjwzADvT9eYyPExdr1qElegReU/edit#slide=id.p>