

## FACULTY OF EDUCATION ENGLISH LANGUAGE SCHOOL

## THESIS SUBMITTED TO OBTAIN THE LICENTIATE DEGREE IN ENGLISH TEACHING

Implementing the Creation of Comics Using Information and
Communication Technologies to Enhance Reading and Writing Skills
Strengthening theAutonomous Learning of the 11-2 Section at Marco
Tulio Salazar Nocturnal High School during the Second Quarter of
2022

#### **AUTOR**

INGRID JIMÉNEZ ZÚÑIGA

**TUTOR** 

ARIEL VARGAS VINDAS

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Yo Ingrid Jiménez Zúñiga, mayor de edad, portadora de la cédula de identidad número

112450154 egresada de la carrera de Bachillerato en enseñanza del Inglés de la Universidad

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MSc. Ariel Gustavo Vargas Vindas

Cedula: 204420300

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Universidad Hispanoamericana Sede Llorente

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La estudiante Íngrid Jiménez Zúñiga, cédula de identidad 112450154, me ha

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**Firma** 

Nombre; MSc. Roy Alfaro Alfaro

Cédula 203060905

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#### **Abstract**

Different aspects have interfered with the education of English as a second language last 3 years in Costa Rica. The instruction of the four skills has suffered a significant deterioration due to the interruption of face-to-face lessons during the pandemic and the lack of strategies to assume properly the virtuality. However, in that scenario, different investigations have demonstrated that reading and writing have been the skills less worked.

This investigation focused on the impact that the creation of comics using information and communication technologies and the autonomous learning of adult students from a nocturnal High School located in San Miguel, Desamparados had on their reading and writing skills improvement. It was implemented the creation of comics as a new strategy to analyze the scope of the use of technologies in the learning process considering their role in current life.

The autonomy while studying was analyzed using selected instrumentation to evaluate the actions taken by the students before and after the implementation of the activities as well as the improvement of reading and writing itself, allowing the researcher to get important findings regarding the behavior of students, level of improvement, use of technologies as tools for learning and comics as a strategy.

The results obtained evidenced the changes experimented by the students during the process in terms of their knowledge of the English language and also in terms of behavior. Those results can be the guide for future investigations oriented to the study of reading and writing skills, the instruction of adults that are learning English, the role of ICTs in teaching and learning, the importance of novelty at the time of teaching, and the essential contribution of autonomy and its guidance by part of teachers.

#### Resumen

Diferentes aspectos han interferido en la educación del inglés como segundo idioma en los últimos 3 años en Costa Rica. La instrucción de las cuatro habilidades ha sufrido un importante deterioro debido a la interrupción de las clases presenciales durante la pandemia y la falta de estrategias para asumir adecuadamente la virtualidad. Sin embargo, en ese escenario, diferentes investigaciones han demostrado que la lectura y la escritura han sido las habilidades menos trabajadas.

Esta investigación se centró en el impacto que tuvo la creación de historietas utilizando las tecnologías de la información y la comunicación y el aprendizaje autónomo de los estudiantes adultos de un liceo nocturno ubicado en San Miguel, Desamparados, en el mejoramiento de sus habilidades de lectura y escritura. Se implementó la creación de historietas como una nueva estrategia para analizar el alcance del uso de las tecnologías en el proceso de aprendizaje considerando su rol en la vida actual.

Se analizó la autonomía durante el estudio utilizando instrumentación seleccionada para evaluar las acciones realizadas por los estudiantes antes y después de la implementación de las actividades, así como la mejora de la lectura y escritura en sí misma, lo que permitió a la investigadora obtener hallazgos importantes en cuanto al comportamiento de los estudiantes, nivel de superación, uso de las tecnologías como herramientas de aprendizaje y el cómic como estrategia.

Los resultados obtenidos evidenciaron los cambios experimentados por los estudiantes durante el proceso en cuanto a su conocimiento del idioma inglés y también en cuanto a su comportamiento. Esos resultados pueden ser la guía para futuras investigaciones orientadas al estudio de las habilidades de lectura y escritura, la instrucción

de adultos que están aprendiendo inglés, el papel de las TIC en la enseñanza y el aprendizaje, la importancia de la novedad a la hora de enseñar y el esencial aporte de la autonomía y su orientación por parte de los docentes.

#### Introduction

The usefulness of Information and Communication Technologies has been present for many years in education however, the last two years facing the pandemic have represented an increase in their use for learning purposes. Portal Educa (2021) explains that at least 80% of educators incremented the use of technological tools during virtual lessons and have continued using them back in face-to-face lessons. (para.3.)

In that context, the purpose of the present investigation is to analyze if students are using those tools by themselves as a recourse to learning autonomously and to connect that use with the creation of comics as a strategy that has the intention of generating an improvement of reading and writing skills of English language. Additionally, the skills of reading and writing are the focus of this inquiry due to the decrease they have experimented on the level of performance of students last two years.

Spector (2021) reports important findings from a recent investigation made by researchers from the University of Stanford about the impact that pandemic has had on the reading abilities of students evidencing that unfortunately, the development of the skill is at pause. (para. 12.) About that the researcher considers that pause expands to most countries and Costa Rica is not an exception.

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Berman (2015) reflects on her experience as a teacher and concludes that most students consider reading tasks as the most tedious activities and the first consequence of that is the low progress of the skill.

On the other hand, writing is another skill that has been on standby last two years, regarding that Edyburn (2021) asserts that technology not only should be considered a good helper for students that are improving their abilities in writing but also should be considered useful for evaluation. Thus, both aspects are beneficial for students and teachers who can recognize some gaps in learners and take action to come up with the correct activities for them according to their needs.

This project of investigation pretends to develop a new strategy to better reading and writing skills. The strategy includes the creation of comics and the autonomous actions taken by the students to produce those comics using Information and Communication Technologies.

The sample of participants will be a group of eleven levels from Marco Tulio Salazar, San Miguel de Desamparados High School. San Miguel, Desamparados has an approximate population of 35279 inhabitants according to Municipalidad de Desamparados (n.d.), San Miguel is located to the South area of Desamparados. The nocturnal Institution has a population of 440 students that live in San Miguel and other small towns around. The population of the High School includes adults and minors. The campus of the institution has more than 45 classrooms, a principal office, and a parking area. San Miguel Desamparados is a developed community with many commercial services such as drugstores, police stations, pet markets, and some others.

# CHAPTER I RESEARCH PROBLEM

#### 1.1 Problem Statement

IGI Global (2022) describes the problem formulation as follows: "It is the process of determining the constituent parts of a problem: its important factors and variables, and the interrelationships between them." Adjusting this research to that definition the following items can be established as part of the problem: First, the lack of technological innovation can affect the reading and writing strategies of students.

To continue, the integration of ICTs for the creation of comics should be permitted for the students to experience an improvement in their reading and writing skills.

Additionally, the autonomous actions carried out by students during lessons could be significant steps for learning and improving reading and writing, and finally, the creation of comics can become a competitive strategy to improve reading and writing skills.

#### 1.1.1 Background of the problem

The two important aspects that are going to be analyzed in the present study are the creation of comics and the autonomous use of Information and Communication

Technologies by students. Both aspects have been studied before with different objectives than this research has.

The implementation of different ICTs for education is probably one of the most researched topics nowadays with different approaches. In that line of investigation Romero (2020) in his study "The Role of Virtuality into the English Classes and its Influence in the Development of English Classes and its Impact on Students at the CTP San Isidro de Heredia with Tenth Grade during the Third Quarter of 2020" the researcher worked with a group of 10<sup>th</sup> graders from the institution.

Questionnaire was the instrument selected by Romero who applied two different surveys to collect the data for his analysis. The writer concludes that mediation strategies have been modified to the new education modality. (p. 62) That change has been difficult in some cases but at the same time must be considered a positive change because has allowed teachers and students to go beyond the traditional teaching-learning experience.

The study also states some recommendations oriented to the use of apps and training for teachers as a priority for the correct development of lessons. (p.63) Leaving aside the traditional methods occurs an opening to the new modalities that make countries to be closer to the Global Knowledge Revolution, an expression explained by Ilyin and Ursul (2012) as an answer to the global difficulties that expressed digitally allowing general access to the information. (p.16)

Additionally, Ramírez in her investigation titled: "The Communication and Information Technologies (ICT) used by English teachers at Manuel Benavides high school with ninth-grade students to improve their learning experience in a foreign language setting" is also considered by the present investigation as an important study related to the use of ICT's.

Its construction was required by Ramirez a use rating scale, questionnaire, and checklist as instruments to collect the information needed from the 25 students who participated. The researcher punctuates in her conclusions that the interactive relationship between teacher and students was better after the implementation of ICTs which was motivational to learners. To conclude the writer recommended analyzing previously any passible material that is going to be used in a lesson. Besides that, she considered it important to mix lessons and continue using Conventional methods as well (p.130).

Ramírez (2016) declares that the use of technologies in the educational field permits the students to learn more even when they are outside the classroom. (p. 39)

That is considered a relevant aspect by the researcher for the present investigation development. The use of apps, websites, platforms, social media, technological devices, and any other existing chronological tool is part of the autonomous actions that students should carry out to achieve successfully their tasks. Investing time in using technologies for learning purposes is an attractive way to engage students with the activities assigned while they can evaluate their performance as well. That learning context expands the acquisition of knowledge to outside classroom scenarios allowing the constant exposition of students to the second language, English in this case.

Furthermore, the research conducted by Mejías titled Integrating the use of tablets as pedagogical tools in reading comprehension classes for seventh graders in the first period of 2018 at New Hope high school at San Juan de Santa Barbara de Heredia" with 25 seventh graders from the mentioned school, was carried out using observation and questionnaires.

The researcher determined that there are many possible and attractive strategies immersed in digital tools to promote reading. Another aspect mentioned by the writer is that the Economy of the Spanish speaker's countries has determined the learning path of English education aiming to adjust population abilities to social, cultural, and political necessities as Mejías expounds. (2018) (p. 6)

With that clear, it is understood why there is a tendency in Costa Rica to give more emphasis to listening and speaking skills. That is evidenced by public institutions that have

as part of their academic approaches English oriented to develop de oral ability. For instance, as Diaz shares (2021), some academic high schools in Costa Rica are part of experimental bilingual programs and bilingual groups that mix in their lessons the use of English and Spanish, aiming to develop critical thinking and the use of the language in different environments. (para. 11)

For its part technical high schools have a different program of education that according to Diaz includes tourism, agriculture, and ICT other approaches are focused on the language based on the interaction of the speakers. (para. 14) Private Institutions are not the exception and sell their academic offer mainly guaranteeing the domain of the English Language for communicative purposes reduced to the promise of speaking English fluently.

That conditioning of interests concerning the study of the language has minimized the emphasis that reading receives in classrooms in contrast with the other skills. Going back to Mejía's investigation she suggested in her document the stimulation of students to get engaged with reading activities and the use of technology to reinforce the mediation. (p.130)

As was established recently in the Presentation of the Educational Promotion

Policy of languages (2021) Costa Rica is oriented toward bilingualism as the main goal

(p.5.) Considering that goal, it is important to understand that bilingualism means to speak

2 languages according to Britannica. (2021) In that line it is clear and understandable that
the main focus of English as a second language in Costa Rica 2021-2040 as the document
punctuates, is and will be the strengthening of the real abilities of the speakers.

Another important object of study in Costa Rican English instruction is the skill of reading. Prestinary (2018) states that one of the limitations when teaching reading is the lack of time to dedicate to the expertise. (p.13) That means fewer lessons dedicated to promoting the reading activities as the author expands in her study, time spent going from one schoolroom to another in face-to-face modality reduces, even more, the lesson time and prevents the students from receiving an appropriate reading instruction. (p. 13.)

The information shared in her investigation reveals that time does not allow the ideal continuity that reading class should have nonetheless, the virtual modality existent in present could be used in favor of the development of new reading strategies worked out in the classrooms.

On the other hand, the analysis of writing skills is considered equally important for this inquiry. Teachers know that reading and writing are competencies that can be worked together to enhance students' language robustness. In this regard, Porras (2019) says that one of the restrictions faced during writing activities is the lack of lexicon of some students. (p. 8.) That intensifies the importance that reading must receive in English lessons because the vocabulary acquired can be applied in writing activities.

A student with a large amount of vocabulary will be closer to executing writing activities proficiently than a student with a limited number of words. Porras (2019) also refers to the importance of developing writing activities in a calm environment (p. 45) aspect that must be contemplated by teachers in face-to-face instruction and by students who develop autonomous activities outside of the school.

Additionally, this investigation prioritizes the use of comics as a creative bridge to link reading and writing activities. Concerning comics León (n. d.) describes the term as an enjoyable way to communicate messages through images. Chamorro (et.al) 2008 sustain that comics are a method to motivate students in different fields of learning. (SLD. 8.)

It is a fact that motivation is crucial when the objective is to achieve academic success then, the use of comics represents a possible good strategy to facilitate an enthusiastic commitment of students to reading and writing activities. Concerning the use of comics for teaching English there was created an interesting investigation in which Fatimah, A. (et. al) (2019) affirm that comics have the characteristic of showing an organized timeline of the events. (p.102) That element could result beneficial in helping students to transmit neatly the information in a written way.

#### 1.1.2 Problematization

The global crisis generated by Covid-19 established new scenarios of education that involve mainly technological tools as part of the mediation strategies used by teachers. The circumstances have been a challenge that day by day provides many possibilities to be considered in the educational field. In that conditions, results are extremely important to ant the knowledge about the use of technologies not only by teachers but also by students.

For (Baltodano et al., 2017), the topic has relevance that was taken into consideration in Costa Rica with an investigation developed that includes 14 educational regions of the country. The objective of the investigation was to contribute to the construction of knowledge to include the ICTsf ICTs in our public education. The effort anticipated was very important and essential during pandemic reality however, experiencing the ICTs as a unique method to teach due to lockdown evidenced the real

necessity of that technical knowledge and even more of its domain. Additionally, the situation has provided researchers with a wide range of information to analyze many different aspects immersed in virtual reality.

In the study and instruction of English as a second language in Costa Rica the value of the ICTs is undeniable. Those technological tools are a treasure considering their function in the learning process of each skill of the second language.

Moreover, it has been revealed a sad inequality in the access to information, access to devices, and internet service that joined to the confusion in the educational approach have weakened the improvement of some skills including reading and writing. However, is equally important training to teachers to guarantee their qualified function of them in classrooms.

For teachers from the public system, there are a variety of options to learn about technologies as Diaz indicates (2020), MEP has a catalog of more than 50 different courses to acquire knowledge related to the use of technologies and other areas. (par. 4) Those courses are an excellent option to be updated on the use of ICTs and develop good strategies to work in the technological era.

Nevertheless, access to technologies has been the biggest obstacle to the good development of virtual education. By MEP the subject matters and there have been taken actions to register the exact number of students with no internet connection. Aiming for a solution and the reduction of the technological gap the investigations made by MEP evidenced that there were by February 2021, 425 000 students with no internet access as Rodriguez reported. (2021) (para.13.)

There are institutional endeavors made not only by the government but also by teachers who deal every day with the situation. According to Dirección de Prensa y Relaciones Públicas MEP (2021), the institution oversees the education of 1 206 800 students (para.1) Data also reveals that most of the learners represented by 67% do have an internet connection. (para. 3)

#### 1.1.3 Justification

Educators have acquired too much knowledge in terms of technology to adapt their lessons to virtuality and students have experimented with the acquisition of that knowledge as well. Both in this case (teachers and students) make use of that information acquired not only for teaching and learning purposes but also for their daily life expanding the information to other contexts such as the familiar one. Having that clear; the result is relevant for teachers to take advantage of that situation to create new teaching alternatives parallel to the use of technologies and focused on specific areas that promote the betterment of English as a language.

Nomass (2012) considers that there is a higher possibility of understanding readings by using technological tools that allow comprehension that would be difficult to achieve without using any assistance. (p.113) That is the main motivation of this investigation that pretends to set up a new strategy benefiting the specific population chosen and going beyond.

Not only English but also other subjects can consider this research a starting point to carry out new mediation strategies. The analysis of the autonomy of learners when taking action to learn is equally important as the teacher's actions and guide. Besides that, the idea of improving reading and writing creatively represents a challenge by the researcher that

considers these skills can be equally related to technological tools as listening and speaking are.

This study aims for the implementation of comics as a new strategy that combined with different digital resources and the pedagogical guide could be a renewed way to improve literacy. Moreover, the environment chosen by the researcher for this investigation is the ideal scenario to develop the analysis of the autonomous learning influence on the student's performance considering that some of them are adults coming from their jobs to receive the lessons at night and this circumstance undoubtedly propitiates that some curricular activities require being developed at home.

Additionally, the institution has free internet connection only for teachers but not for all the students so, the access to digital tools by part of the learners during the lesson depends on the mobile internet that each student has. From that fact, it is a need to work some activities autonomously at home where could exist a stable internet connection. However, it is remarkable to mention that at this point of the investigation the researcher does not know the access to the internet that students from Marco Tulio Salazar High School have in their homes.

The above-mentioned aspects and particularities are part of the analysis that this inquiry pretends to carry out focusing on the use that students give to Information and Communication technologies to improve their reading and writing skills incorporating the construction of comics as a strategy.

#### **1.2 Research Question**

What is the impact of information and communication technologies to improve

reading and writing skills throughout the creation of comics in students from sections 11-2 from Marco Tulio Salazar High School in Desamparados, San José during the second quarter of 2022?

#### 1.3 Objectives of the Investigation

#### 1.3.1 General Objective

a) To determine the impact on students' autonomous learning using Information Communication Technologies to improve their reading and writing skills throughout the creation of comics at Marco Tulio Salazar Nocturnal High School during the second quarter of 2022.

#### 1.3.2 Specific Objectives

- a) To implement the creation of comics as a tool to work on writing and reading skills according to the Information and Communication Technologies at Marco Tulio Salazar Nocturnal High School during the second quarter of 2022.
- b) To validate the role of autonomous learning during the creation of comics and their use as an assessment personal assistant at a public institution during the second quarter of 2022.
- c) To compare the improvement of reading and writing skills achieved with the development of comics using Information and Communication Technologies autonomously at a public institution during the second quarter of 2022.

d) To estimate the use of Information and Communication Technologies for the student's reading and writing skills improvement at Marco Tulio Salazar Nocturnal High School during the second quarter of 2022.

#### 1.4 Scope and Limitations

#### 1.4.1 Scope

The present inquiry pursues to develop a new strategy that increases the capabilities of students in reading and writing skills while they execute their steps to succeed in the activities. The development of the investigation will be effectuated with a group of advanced-level students from Marco Tulio Salazar Nocturnal High School in San Miguel de Desamparados.

The group will experience their learning process during the use of ICTs for creating personalized comics, which will allow the participants to share their acquired knowledge, experience, information, or material created with their families, teachers, and friends. Simultaneously, all the information can provide new important data to teachers in general and researchers, especially in the educational field.

#### 1.4.2 Limitations

One of the possible restrictions this research could have in terms of the use of Information and Communication Technologies is access to some apps that require payment. In that case, depending on each student's particular situation the number and quality of tools they use for the construction of comics certainly can have an impact on the results of this investigation.

# Chapter II Theoretical Framework

#### Introduction

This chapter begins by giving a short introduction to the readers about what they are going to find exposed in the following pages. For all the writer clarifies that there are going to be explained briefly but concisely different concepts and theories that are relevant to the present study or are related to it.

The first topics developed are some learning theories that have foundations considered by the researcher of the present investigation necessary to understand and review because are applicable for the current study. For instance, constructivism, experiential learning, and connectivism learning analyzed from the perspective of their creators and related to the actual writer's perspective will be the first contents developed in chapter number two.

Continuing with the chapter will be possible for the readers to find explanations of key concepts closely related to this inquiry. Some of them are information and communication technologies, literacy, reading and writing, comics, learning to learn, and autonomous learning. Also, will be deepen analyzed the role of teachers and students with those elements. Having introduced the contents present in this chapter the researcher initiates here the reporting of the most relevant literature influencer this study.

Literature is one of the most important sources that a researcher can access while the investigation is being developed. It can be considered a genesis and offers valid postulates that help the author create a robust chapter at the same that provides quality information included in the official paper. The identification of previous relevant investigations and theories allows the researcher to focus on specific facts, proposals, or data to delimit the study.

To write an adequate literature review the writer must include important published material that will be examined and described in the current paper. (McCombes, 2019, para.2) That allows not only to establish familiarity with previous works of investigation but also to have a valid guide to define what steps are going to be followed during the actual examination work.

The University of Edinburgh (2021) remarks that most of the time Scholar's studies are the best option to inquire about other explorations, existent gaps, and aspects that have not been developed yet associated with the current investigation. (para.4) Having qualified material as a base it turns easier to go beyond in the development of the literature review delimiting the exploration field to create new material.

This chapter will include some theories considered potentially connected to the intention and approach of the present inquiry. Those theoretical contributions will be analyzed and interpreted by the researcher throughout the present section of the document to facilitate the reader's understanding of a more complete context existent concerning the different components that are part of this analysis.

#### 2.1 Constructivism Lev Vygotsky

Education has been the object of investigation for thousands of years. During the 19<sup>th</sup> and 20<sup>th</sup> centuries emerged prodigious minds dedicated to the analysis of instruction including as the focus of study the learner. Among the information analyzed, discovered, debated, and created arose the theory of constructivism in hands of Lev Vygotsky.

However, he was not the only one who delved into this theory, other recognized scholars such as Piaget and many others have contributed a lot to this assumption.

The main pronouncements in this theory according to Peiro (2021) assert that the learner is the protagonist in the learning process and the teacher is a guide in the background, the challenges that arise during the learning experience are solved by students making use of their prior knowledge, the learner uses his/her point of view as the basis of knowledge to be an active part of the learning practices and this positions the student as the core instead of as a bystander. (para. 8) Going over these postulations the role of the sample of participants and the instructor is clear in this investigation.

When Twomey 2013 explains what constructivism is about, she sustains that when implementing constructivist practices the idea of the teacher as unique with the knowledge to transmit is dispelled and learners realize that they have ideas to defend or share and there is a reciprocal learning experience. This promotes a better sense of engagement by part of the students.

Instructional design (2022) refers to the study developed during decades by Piaget around constructivism opening the theoretical possibility to a new concept called Genetic Epistemology that synthetizes not only the student's role in the learning experience and the aspects that converge on it but also how the learners get on that process throughout their understanding of the world. (para.3) In that context that involves experiences and perceptions a justified interest in this research was born aiming to understand how students can apply their prior knowledge while developing comics and how that would affect their reading and writing skills.

Constructivism is not a hypothesis used for teaching, rather is a hypothesis for learning and teachers use it as a fundament to guide the students and teach them to become knowers. The accustomed methods of teaching seem so rigid and the learner has no

decision on the topics tough, on the other hand, the constructivist way of instruction animates learners to be active in decision making and provides them with the perception that they are hand in hand with the teacher during the learning procedures. Students realize they can acquire new information whereas they use their acquaintances.

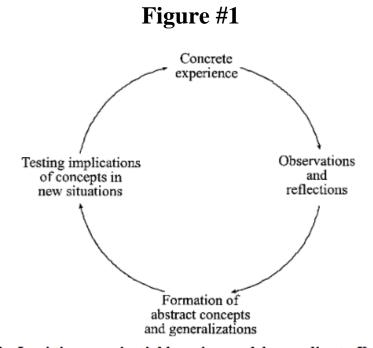
Students regulate the syllabus to their necessities and possibilities being aware of how potential they are getting knowledge. (Libman, 2010, p. 5) In the current context, the researcher is aware that the pandemic changed widely the way that students learn, understand, investigate, and also the way that teachers transmit the contents, which motivates the present inspection to go deeper and look for more information about the constructivist process that the group can come about to expand their reading and writing skills using digital tools for constructing comics.

Even though constructivism is considered fundamental in Costa Rican education since 1990, it is important also to take into consideration the detractor's opinions. Lopes and Jiménez (2014) mention the fact that some investigators consider that the approach promotes the reinforcement of individualistic behaviors and that results against the important development of collaborative practices.) (p. 163) Facing this observation the researcher does not pretend to foment individualism and does not consider that the time that students are going to spend in the activities can significantly affect the collaborative environment of the group, moreover, they can share ideas and be part of other's learning process.

#### 2.2 Experiential Learning John Dewey

This theory was exposed by Dewey in 1938 and has been analyzed by many other investigators in the educational field. According to Kolb's model which was inspired by the

previous work of Lewin, there is a combination of individual perceptions and the transformation of them into experiences as Miettinen (2010) explains in the following figure. (p.57)



The Lewinian experiential learning model according to Kolb

The Figure presented shows that exists a relation between different factors that a person experiments with when learning.

At this point, it is pertinent to clarify the relationship existent between this theory and the constructivist one because the experiential approach includes all the components present in constructivism considering the figure of the learner as the main responsible for getting knowledge.

In addition, what experiential learning attach is the organization of the four factors exhibited in the figure this page contains: concrete experience, reflective observation,

abstract conceptualization, and active experimentation; this last component will be the determiner in this case to conduct the task assigned by the researcher during this study.

The active tryout will be in the student's hands and will require their analysis, exploration, and interpretation, and also will include the art of taking decisions while developing comics to achieve the researcher's expected duty.

Grady (2003) comments when referring to Dewey's postulates that "Education is a social process" (p.4) When the author stays that, what he pretends to communicate is that education goes beyond structures and the teacher's figure. Education means interacting between individuals of different levels of maturity and with environmental factors.

Grady also sustains that each learner has a point of reference to establish codes in mind and process information but is in the experiential context when the acquisition of knowledge takes place. Understanding this the researcher pretends in the present paper to provide students with a certain level of independence when creating their comics and verify if there was easier for them the production of a task using their reference in context.

The center for innovative teaching and learning (March 6<sup>th</sup>, 2022) refers to experiential learning as a way to develop critical processing at a cognitive stage of pupils. (Para. 9) The development of tasks contributes to the obligatory analysis of actions and procedures to achieve the expected assignment objectives.

On the other hand, experiential learning is joined to the emotional condition of the learner in different ways including the effect that insights have on understanding, the emotional condition directs the learner's disposition to learn as well as can change it completely. (Moon, 2004, p.53)

The author also details how for instance the aspect of someone can create mental ramifications that the person joins to determine factors in his or her life identified with that first impression obtained from the image. Based on that the writer exemplifies using an exercise or writing that was created using the memories of an influential person in a learner's life. (p.2013)

That tends to make relationships at the mind level suffer the interference of emotional meaning of things assumed by the learner who gives individuality to his or her meaningful assumption and since that point generates an emotion-oriented to someone or something and will manifest than the inappropriate or inappropriate attitude towards the contents and the knowledge constructed with that.

That cognitive procedure considering the sample for this inquiry results not only interesting but also challenging for the researcher who knows that the participants that are going to be part of this investigation are of different ages, different cultural contexts, some work, and some others only study, and some of them live in marginal urban areas around the High School.

All the factors mentioned are going to be the experiential elements that will be reflected in the activities and consequently in the results obtained with this study.

## 2.3 Connectivism Learning George Siemens

Connectivity came to put in place a new way of learning. The assumed autonomy to obtain new information, strengthen background, and the figure of learners as creators of content are constituents of a student from the digital era.

The old way of receiving information after-hours reading encyclopedias and attending many lessons has been replaced by digital fashion assistants, for example, Google or Youtube. Teachers make use of many different ICTs as part of their tutorials while students get immersed consciously and unconsciously in the addition of new blocks of data throughout technologies.

This theory proposed by George Siemens highlights individualism while learning. The constant connection to different digital tools allows the person to be in continuous tuition that is linked between inner experience and outside experiences. The outside experience is a constant that provides continual information that students keep in their minds more time than the information they get in specific hours dedicated to study. The outside is a system that works even more efficiently than the organization found in lessons. (Duke et.al. 2013. p. 7)

For his part Siemens (2005) asserts that the main theories of learning proposed years ago; constructivism, behaviorism, and cognitivism are discontinued and do not fit in the actual surrounding of learners. (p. 3) This assumption is very clear and evident for teachers however, not all of them are willing to take responsibility for it modifying the syllabus to the current existent needs.

The researcher considers the old theories are still valuable in terms of understanding behaviors but agrees with Siemens in considering the change of the context produced as a result of living in a digital environment requires new approaches and especially new strategies.

In this document, the writer pretends to implement comics as one new strategy and improve reading and writing skills with that implementation.

The main principles observed in this theory incorporate the following ideas defended by Siemens:

- a) Assumptions about understandings belong to divergence.
- b) To learn is an event highly connected to modern information origins.
- Learning experiences may be placed in electronic sources more than in human sources.
- d) The ability to get knowledge implies more dedication and cognitive effort than it is usually considered.
- e) To be updated is fundamental to not interrupt the process of knowledge.
- f) The capability of linking appreciations, thoughts, and environments is an inner skill.
- g) To be updated is fundamental for this theory.
- h) To take decisions is an independent learning step of the procedure. (pp. 5-6)

Based on those proposals the present study assumes as fundamental to have respect for point number 4 when the students develop the activities because they are different ages and each of them will have a different level of difficulty to achieve the goal established and also will consider it as important the individual use and exposition of each student to the information and communication technologies.

## 2.4 XXI Century abilities

The information era changed the way of teaching and learning all over the world. Students now have some modern and specific requisites to be regulated in the process of learning according to the reality existent now a day. XXI Century abilities insert some skills that are considered mandatory in the digital learning context as Stauffer (2021) exposes in the following list.

- a) Critical thinking
- b) Creativity
- c) Collaboration
- d) Communication
- e) Information literacy
- f) Media literacy
- g) Technology literacy
- h) Flexibility
- i) Leadership
- j) Initiative
- k) Productivity
- Social skills

Those twelve aptitudes are the ideal factors that a learner includes while acquiring knowledge in the present. The author considers that the age of information needs to cover the points presented above and thus facilitate the learning process of new generation learners. (para. 2)

The origin of this new approach began in the decade of the '80s as a need observed by governments, especially in developed countries such as the United States of America. By 1991 they created a report that defined the real necessity that students at that moment had in terms of acquiring new capabilities and becoming optimum professionals as the United States was needing, as Edalex (n.d) details. (para. 15)

The author continues explaining that in that scenario education institutions, employers and governments were concerned and decided to develop the incorporation of new ways of capacitation in different fields, however, today there are still many gaps preventing different sectors from having a 100% of the ideal management of digital age. (para. 19)

Costa Rica is not an exception and struggles somehow to fulfill those requirements, especially in the educational field. As was explained earlier in this document pandemic represented a challenge concerning the use of technologies and virtually precisely because of the lack of teacher's proficiency in the use of digital tools but especially because of their accustomed way of teaching.

Trilling and Fadel (2009) maintain that learners must be guided to achieve success and that is an interest that must be shared by all involved in it; family, institutions, educators, and governments. To get to that stage it is a necessity to redesign the routes of learning and primarily of teaching. (p. 29) As the authors advise, a change is needed to adapt education to the real context.

For instance, Jerald, C. reflects on the need of teaching to the learners (how) immersed in things, that means; how to get the information and not just provide them with

it. The author exemplifies mentioning that the present results are more efficient to the current cognitive process of looking for a topping using a determined browser than looking at a board full of text. (p.30)

However, this modern need in education runs counter to the idea of learning traditionally that some educators pretend to sustain and prevent learners from developing 21<sup>st</sup>-century skills; especially critical thinking and technological competency.

Qualified education in the 21<sup>st</sup> century comprehends teachers' training and dissolution of inequalities to ensure a better life in society for individuals. (Avilés, 2015, p. 114) That is why it is important to have clear globalization present in education and construct knowledge based on standards adjustable to the digital era. Additionally introducing the use of technologies to teach the English language in the public system is an effort to reduce the gaps existent in comparison with the private system.

All aspects mentioned are part of the importance of making use of digital content, tools, and sources as the basis of teaching English and of course all subjects according to the real context and the current cognitive capability of students.

### 2.5 Information and communication technologies

Information and communication technologies are the great protagonists that education has nowadays placed just behind the learner's role in a level of importance. Environments, materials, evaluations, and guidance are usually found as part of digitalized aspects. Van Weert and Tatnall agree that being part of learning demands an injection of real tools that permit the formation of competent professionals prepared to encounter different situations depending on the use of it. (p. 9) With this comment, the authors signal

the necessity of being immersed in the use of technologies, and for the present study that is an explanation of how age and the level of use of technologies may affect the development of some tasks.

Haddon (2016) introduces in his book the term "Social Dynamics" as behaviorism exists in the present in which technologies play an essential daily role in people from every context. Additionally, the writer manifests that ICTs resolve social or personal troubles. (para. 6) It is fundamental to understand that troubles, in this case, are needs that humanity is facing at this age, those needs are present in different scenarios of life such as work, social interaction, and education.

On the other hand, Information and communication technologies can be analyzed from different perspectives. First of all, their use is made by teachers to transmit knowledge. By UNESCO there are some conditions that teachers must have a clear domain in modern times. Those conditions include having the capability and proficiency at the time of using digital tools for collaborating with learners (p.10) which means not only having knowledge about apps or software but also means to be prepared for resolving technical issues and implement in their lesson plants technological mediation strategies.

Far away from the idea that learners are the group that receives information to learn, teachers are also part of the learners in the current technological era and must be updating constantly their knowledge to be efficient while teaching.

Furthermore, must be delimited the use of ICTs as a way to achieve the objectives established, and the means to access information and resources but never, should replace the study programs. (Muñoz, 2020, p.30) Thus, ICTs are part but not the total mediation

strategies and teachers have to manage the incorporation of those resources to facilitate learning.

A second perspective is the use of technologies made by students. The responsibility of being able to use digital tools is personal and represents certain levels of difficulty depending on the background existent in the person and of course the possibilities in terms of connectivity and access to the use of devices.

An interesting fact signaled by Noor (2018) is that in past only teachers were able to manage materials or contents but in the present students also can manipulate the contents and do it with a certain level of autonomy (p.6) that contributes to an increment in the interest of learners according to the author. Moreover, the learners are the ones that expand or limit the information that is received. They are controllers of the amount, quality and sources used going beyond the instructions received from professors.

The awareness in modern students about the importance that acquisition of technological skills is frequently more perceptible in adults (Infante et al, 2019, p.211) Nevertheless that concern begins earlier influenced by the inclusion of ICTs in the mediation strategies and is mainly in the student's autonomous manage of the learning process, the future of those learners as workers in a digital market job would be better.

The third perspective included in this section is the integration of ICTs in the public education system. Rojas (2021) spotlights the significance that the government must have concerned the introduction of ICTs in the public system and all aspects that are strongly related to that; for instance, training for teachers and equipment in the institution are part of Rojas' claim. (para.6)

The observation made by the author shows how ICTs are not only important but also require to be developed by professionals trained and using the equipment needed. So, could be considered that technologies are not the unique element that will be used to improve modern cognitive necessities, and teachers and devices have parallel importance in leadership during instruction.

For the present study to have previous knowledge of the access that students have to devices and connectivity is essential to develop the activities planned as has been specified since the beginning of this written work.

In the same approach Campos (et al) sustain that modern learning environments affect directly the way that teachers have of managing digital resources turning them into facilitators that must guide collaborative learning. (p.242) As it is evident different investigators agree on the fact that teachers do require to be updated and trained with the aim of being qualified to transmit knowledge competently.

In Costa Rican public education, the MEP has worked to improve methodologies used in this country for the implementation of information and communication technologies. The information technologies policy of the ministry of public education is a document created to establish the guidelines at the institutional level following the recommendations issued by UNESCO regarding design, legislation, and policies concerning the digitalization of education.

The document explains different approaches such as equality, equity, inclusion, quality, and sustainability. (Solís et al, 2020, pp. 7-8). Those fundaments are part of the strivings that the Costa Rican state must ensure for the educated population and the society.

MEP has taken actions to propitiate the adaptation of education to the current social, political, and economic needs.

With those projections being part of the public education, governments in different periods of the recent history of Costa Rica have shown interest in the betterment of the methodologies and promotion. However, that does not mean that the objectives are being fulfilled but efforts are necessary and generate changes.

## 2.6 Autonomous Learning

Being autonomous means being a self-administrator and taking responsibility for life. (Keller, 2016, para. 1) The author expands the explanation which is based on a psychological analysis including as part of the autonomy of a person some aspects such as preferences, desires, emotions, and others. (para. 2) The aspects could be understood in the educational field to comprehend better the meaning and the scopes of autonomy in a learner.

Autonomy in education is a constituent of students. According to Yanxia (2020) depending on the individual disposition of each learner, the web base and any other interactive and novel method should be used to make it possible to personalize teaching, and educators can guide the students in reasoning and interpreting the information. Following this, the student will be able to strengthen abilities and stay away from weaknesses. (p.18)

Innovation is present in the previous suggestion that allows readers to understand that there is self-regulation in students when they are autonomously learning make possible

to improve those indicators that are working positively and to abstain from the less productive methods.

About that Pemberton clarifies that teachers do not have to take for granted self-regulation when acquiring knowledge because autonomy while learning requires a process. (p.24) In that process the role of teachers is fundamental and the first who have to be clear with that are educators who are transmitting the possible procedures to follow and that finally will activate the autonomy.

(Richards and Rogers 1986, p. 77 as quoted by Yan, S. 2012) divide the role of the teacher into 3 different categories: Teachers as managers and organizers, teachers as facilitators, and teachers as counselors. (p. 560) With that categorization, the authors emphasize the importance that tutors have in any learning process.

Specifying one by one those categories must be said according to the author that the first one refers to the teacher as an instructor planning the ideal activities for the learners.

That instruction needs to be based on the objectives, students' motivations, and presumptions always including good organization and mainly very clear instructions.

The second teacher's role is to make easier the way of carrying out the activities. That only is possible by being a competent guide and understanding the task as a whole; that means how to achieve it. Finally, the third aspect of that categorization refers to the role of the teachers as the guide that make suggestions and corrections, gives advice and fosters individual actions after his or her contributions.

This study aims at the creation of comics as a novel strategy that looks the upgrading the reading and writing skills in the 11-2 group of participants. That will be

guided by the researcher following the above categorization to proceed with the development of the activities planned to reach the objectives.

Parallel to the relevance that the teacher's role receives, also it is appurtenant the role of the learner when taking actions during a learning process. By Kormos and Scizer (2014) one way of analyzing the autonomous actions of learners of a second language is focusing on two different elements: independent use of learning resources and learning using ICTs. (p.283) This encourages the researcher of the present inquiry to continue focused looking for the achievement of the objectives established in this paper.

Considering the appreciation made by the authors regarding ICTs as an object of autonomous learning is that this investigation at this point of the document reinforces its idea of using them as a trampoline to generate autonomy during the creation of comics and validates the role of technologies in the current digital learning era.

Additionally, Dafei (2007) argues that the more autonomy a student has the more proficient in the use of the English language he or she is. (p.8) That declaration heightens the contribution that the actions taken by learners have meaningful results at the cognitive level. Puspita (2020) affirms that whenever students choose the proper digital materials and topics that fulfill their interests the learning experience will be successful. (p.96) In that sense, this research pretends to allow the participants of having freedom at the time of selecting their topic individually to construct the comics. The researcher considers that managing personal interests' inactivity will encourage the group to take more actions and have a commitment to themselves which activates autonomy awareness.

About all factors developed in the above lines, this investigation sustains the importance of fostering the student's autonomy in contemporary learning scenarios embracing the available digital tools, and attempting a good structure guided by part of the teacher as the main reference point for students.

## 2.7 Comics as a Strategy for Learning

The evolution of this study depends on different variables, one refers to the use of comics as a strategy to improve reading and writing English skills. Comics in this research are a novelty that pretends to catch the interest of the participants and awaken their reading and writing skills.

Comics not only will be the final product in the activities carried out as part of this inspection, but they also will be the motivational factor capable of joining background, context, and creativity. In addition, comics are going to activate what the researcher pretends; autonomy, providing the participants with a new awareness of their role while teaching English as a second language.

Comics reflect a society that also has assumptions as part of its content. (Babic, 2014 p.8) Fortunately, the actual moment is supplying learners with enough material to create those reflections interactively and the most important of it is the expansion of critical thinking throughout the design of the activity.

As reported by Hatfield the origin of comics dates back to the 60s and 70s as "an acutely personal means of artistic exploration and self-expression" (p. 9) The author mentions on the same page how that art represented the free opinions of writers

accompanied by innovation. Somehow the production of personal content is by itself a motivational factor that can produce learning in the person.

That is fundamental considering that one of the obstacles when learning a language is precisely the lack of motivation as punctuates (Wachob, 2006, p.96)

The writing expression presented in a comic is the way of cultivating declarations linked to a form of literature which is a treasure in human lives, however, literature has been displaced lately from the interest of learners especially the youngers as reported by (personal communication, Ulloa, March 15, 2022) since her perspective as principal of a public institution of education in Costa Rica, Ulloa highlights le lack of attention that students have towards literature.

Literature demands the practice of reading and writing, and the displacement of those skills represents a weakness in any language, that is a way to understand why it is important to return the interest or create it again to reinforce reading and writing skills and also to set the autonomous actions learners in motion.

## 2.7.1 Comics and Reading and Writing Skills

In the case of writing and its relationship with the comic, it is interesting to analyze the role of the person as a creator of art. This Cleaver (2008) explains that the person is first at all a writer, next the person has the necessity of express something, to continue the person is also an editor and finally is an artist. (p.30)

Bowkett and Hitchman (2012) recommend in their book some ideas to begging the activity of writing from an illustration (here is important to point out that preferably the image must be the creation of the writer for purposes of this investigation.) First the learner

could start writing a line of dialogue (p.15) however considering the context in which comics are being produced that fist line could also be provided by the teacher to start a task.

As a second recommendation, the authors suggest commencing with an emotion that will generate an identification when the reader gets on the comic. (p.15) this technique at the beginning allows a connection between the creator and his or her project and on the other hand, allows the reading to establish affinity with the project. In both cases that is what this study is looking for.

Meanwhile, experts debate about what aspect the most important when developing comics, Nordling (1995) claims that writing is the element most relevant in a comic and it will determine if readers are going to want to have more content from an artist. (p.19) So, the labor of the instructors has a fundamental role because teaching grammar and wording is going to be the essential previous part of the requirements to create comics later.

In the case of the eleven graders that are going to participate in this investigation, their previous knowledge received in the public system during primary and secondary education will be demonstrated in the activities of writing constructed by each of them.

To finish this part of the document the researcher wants to mention a study carried out by Graham (2011) in which it is noticed that when writing activities for the creation of comics were developed, students achieved improvement in grammar and enhanced vocabulary. Both elements allowed the instructor to measure the progress in the analysis of the data. (p. 96)

Both, grammar and vocabulary are equally important in all the skills when a second language is being studied. However, the researcher in the present investigation considers

that reading and writing those aspects have a stronger meaning due to their use of them in compositions and also while comprehending texts. Having reading and writing skills present in the process of creating comics the results expected by the researcher are closer to the improvement of those areas.

Going back to Bowkett and Hitchman (2012) they give another recommendation in their book, where the authors invite the instructors to initiate the comics by using animation software (p.76) In this case the present study will use all possible ICTs to include that technological interaction in the activities as has been explained before. With that, the researcher will procure adequate experience in the existent reality of learning.

Comics represent in this study the final product that will contain the technological abilities implemented by the students, their reading and writing skills and their autonomous actions join in the art of comics.

## 2.8 Literacy

The literacy definition has changed as a response to the economic, social, and educational needs of countries. The globalization phenomenon instituted a new global movement that defined certain skills as essential to fulfill the literacy of individuals. Those skills are related to the domain of languages and technologies.

By UNESCO when referring to literacy the current understanding of literacy is directed to the capabilities of understanding, interpreting, and communicating contemplating the digital tools that have changed the old methods of producing content. (p. 3) That definition fits with the objective of improvement of the English language through the implementation of digital literacy environments.

By Jones and Flannigan (2006) literacy means a set of all possible intrapersonal mental plans that users of technologies develop as natives of the digital era. (p.6) In this case, the researcher knows that the 11-2 group has a variety of ages and exists the possibility of having adults that may be struggling with the adaptation to digitalization at their cognitive level.

Literacy focuses on the capability to reach different assignments in the standard of living. (Mc Caffery, 2007, p. 37). Analyzing that reference, it is understood that during the day life impels people to demonstrate the domain of certain abilities, especially technological. Moreover, the use of apps with indications in English has been something commonly faced by users. Managing to perform is when literacy is reached.

Alberta education (2022) attributes responsibility for literacy in classrooms to the instructors. (para. 5) However, it is important to recognize that classrooms are part of the process but not the total of it; the literacy expands to the rest of the environments of life. Yagelsky (2000) by his part remarks that the participation of a person in the current events of life is a trampoline to get to literacy. (p. 1) Exposition furthers the practices of the digital age.

In simple words, using media communication, working, going to a bank, or processing some requirements are just examples of the exposition to digital era tools that can lead to acquiring some new knowledge useful for daily life and many times related with the use of English language.

## 2.8.1 Literacy in Reading and Writing

Continuing with the enriching contribution of Yagelsky (2000), the author gives a particular appreciation of literacy in his book. He describes reading and writing abilities as a detriment for social minorities especially referring to the use of the English language. (p. 5) His opinion is very close to reality if it is considered the educational division evidenced in the quality acquired for different social strata; something very noticeable in Costa Rica.

Adlid (2022) mentions that especially with adolescents, writing is a reason for what students struggle, and for changing that situation professors can produce a betterment providing grammar and spelling strong basis. (para. 2) That means that it is needed instruction to produce well-structured written works as is going to be explained later in this document.

Regarding writing Bifuh-Ambe (2009) conducted and study in which some specific problems were exhibited. For instance: the ability to understand, faculty of expression, and oriented instruction assessment prototypes are part of the important mistakes found interfering with the kill. (p.28) Added to this could be mentioned that background may affect the good performance of a student in writing and to be more specific; in Costa Rica, the last two years of a pandemic have led to a wide gap academically as well.

In those circumstances students are dealing with some weaknesses in reading and writing, they have experimented with a lack of practice with the non-production of oriented tasks. That energizes the goals of the present investigation that claims for reinforcement

that provides support to the students and lets them achieve the improvement of their reading and writing skills.

Moreover, Newman and Dickinson (2003) declare that the reading practice most led to an understanding of the final goal. (p. 180) Sometimes students read but do not internalize the comprehension of text preventing them from literacy. To avoid that it is indispensable the interest for reading so, it is a great opportunity to read content produced about the context that readers are living in.

Putu (2007) clarifies that literacy skills can be increased with quality only if the learning context of learners is considered as part of the exercises and the fundamental requirement to obtain good results is the construction of accurate objectives by part of the teachers. (p.20) this final comment comes to give strength to what has been said before in this paper; the teacher's role is the key in the process.

As has been explained in this segment literacy skills have been always identified as reading and writing abilities. Nevertheless, globalization has added the abilities of domain English language and the use of information and communication technologies as part of the renewed concept that depends on renewed strategies for the instruction of the second language. The aspect that must be prioritized by educators.

# 2.9 Teaching Reading and Writing

When a second language is the objective of the instruction many factors such as curriculum, background, assessment, or access to information influence the process of acquisition in learners. Starting from that point is that teachers have the responsibility to

implement the right strategies and adaptations during the instruction; always looking for the academic wellness of students.

To teach reading and writing depends on important elements to be instructed. The researcher wants to underline at this point that reading and writing activities must end always with the understanding of the learner as the main manifestation of proficiency. By Jacobs (2002) there is a notable difference when teaching reading and writing to students in primary and secondary school. That difference is that in the case of school they learn to develop reading and writing, on the other hand, in high school learners read and write to acquire and express knowledge. (para. 4)

Knowledge at this stage is the equivalent of success in a world of information challenges needed for living. Adjusting our daily actions to the standards is the determining point of wellness in people. Those that are not immersed in knowledge and its applications are somehow living as illiteracy individuals. That was education pretends to prevent in society.

Later in his study, Jacobs gets across the importance that the integration of both skills. That could be reached by using strategies to combine the two skills and work them as a unified product. (para. 22) Sometimes and especially thinking in the old fashion models of education the skills of reading and writing were worked in classrooms as independent skills and that rested potentiality to literacy.

Regarding the integration of both skills, Raphael (2017) emphasizes that working on reading and writing forms more confident students. The practice empowers the student's perceptions of their role as users of the target language. (para. 7) Students making their

tasks empowered by themselves will be more productive in a classroom and will assume they are valuable in an academic sense even when they are learning. Part of the feeling of confidence comes from the success achieved with the implementation of suitable strategies

Strategies used by teaching literacy must be contextualized and adapted to the specific needs of students to avoid anxiety. (Flinn and Stainthorp, 2006, p. 28) considering this appears to the importance of the emotional consideration that education must have to protect the student's fillings. Here it is necessary to have an awareness of the stress that some learners can experiment when dealing with a second language learning process and do all that it is possible to rest the impact of that on a person.

Continuing in the need of circumventing stress and anxiety also teachers have to consider while teaching reading and writing the immediate motivation received from the familiar core, the economic status and besides that, it is pertinent to understand that learners in present require dynamism as the key of motivation. (Garton and Copland, 2019, p. 3) Nonetheless, adolescents and adult students are more independent from familiar support and some of them do not have it at all.

In those cases when students are not close to the motivation in their contexts, the teacher figure has in charge to provide them in the classroom with that stimulus to direct the expected success. In the present investigation bearing in mind the social context that most of the students belong to, the idea of the creation of comics is adjusted to the interest of the researcher in generating self-motivation by creating a product that fits with the student's interests.

## 2.10 Learning to Learn

Learning to learn it's a skill itself, a need, and competence that addresses knowledge. In life, education systems function as the font to enhance that knowledge but an individual's role determines the level of success of the acquisition and that is closely related to the ability to learn that each person has.

The concept of learning to learn could be different for every single person, however, many researchers are deep in their explanation. Andersen (2016) defines it as the disposition to do trials and recognize the position of beginner or non-expert as a reality that could be changed is what makes the difference in a person who decided to learn in comparison with a person that does not face new experiences. (para. 2)

However, Andersen also recommends being prudent with self-assessment and valuing the feedback received from others (para. 10) times to learn independently confuses the learner regardless of the validation of the knowledge enhanced. That is important to be analyzed in a learning process especially when the language is the subject and feedback from instructors is the main assessment that a person can receive to construct a solid basis from it.

Related to this, it appears the level of commitment a student has over himself or herself, his or her perception of intelligence as a concept applied to him or her individually, and also how much a person is willing to act in a learning context (Donoban and Bransfort 2004, p. 16) Willingness is the factor that functions as the determiner of acquisition and success, personal in this case.

Wirth and Perkins (2013) consider learning to learn is a skill that depends on other factors such as responsibility, critical thinking, ability to change, respect for other's points of view, and desire for learning; just to mention some. (p.3)

In addition, the writer explains some important domains to be considered while a person is learning to learn. The first one is the cognitive domain related directly to thought. The second one is an effective domain that involves emotions, attitudes, etc. Finally, the third one refers to the psychomotor domain through which actions emerge. (p.5)

Regarding the first one the researcher understands that in this investigation that is going to depend on the development of thinking of each student, besides that, the background also will have a role on the cognitive scope of learners. In the case of the affective domain, it has been already explained in this paper how much consideration deserves when students are part of a process. And the last one is related to the ideal actions taken by students that as the final goal have to enhance reading and writing skills.

This chapter has gathered a brief, but solid number of literary contributions that come to validate the intention of the present research. The writers take into consideration as a guide of the present paper provide to the researcher with a clear notion of the most relevant aspects to be considered during this investigation.

Their approaches and experiences address the goals established in this inquiry being the foundation of credibility and having a meaningful sense of respect by them.

Having finished this chapter, the researcher now considers she has stronger premises and the following chapter can be started with the intention to continue looking for

the objectives of this investigation. For those reasons, the next chapter will introduce the readers to the details regarding the methodological elements present in this investigation.

The explanation of the approach, instruments, strategies, nature of the study, and some other methodological aspects will be the key information the readers will have to understand the future stage of this investigation that corresponds to the implementation of the strategy created by the investigator and the instruments to collect data from the group.

# Chapter III Methodological Framework

### Introduction

This chapter explains each of the methodical aspects that belong specifically to the approaches, sample, and reasons that determined the circumstances in which the election of the group and strategies occurred. Also describes the parts of the framework and finally the instruments that help the researcher construct chapters four and five.

In any research, the methodology used for the development of an investigation is the fundament in which the researcher guides the investigation. Different approaches, instruments, questions, and objectives require gathering in the same investigation in an organized way to achieve the results, conclusions, and recommendations.

McMeekin et al. (2020) explain that there is not a literal explanation for methodological framework, however, it could be interpreted as the guideline used by the researcher to go gradually complete the steps that are needed to develop a project. (p.2) This chapter organizes those steps to promote the reader's understanding corresponding to the procedures that have addressed the development of this investigation.

# 3.1 Type of Research

The present is an applied research since it uses the construction of comics while using ICTs and autonomous learning as the strategy implemented in this investigation.

### 3.1.1Purpose

The main purpose of this investigation is to analyze the impact of the creation of comics on the improvement of the reading and writing skills of students from a public high school.

## 3.2 Temporal Dimension

A crucial aspect that must be considered as part of the current context is time. The understanding of the present allows us to analyze why determined strategies are being used in a determined moment.

## 3.2.1 Longitudinal

This investigation occurs after the imposed lockdown to Covid-19 that affected and changed dramatically education. In Costa Rica, the use of technologies to sustain education from 2020 up to now has increased considerably. The challenges faced by educators and students gave shape to the new combined modality of teaching and learning, which is divided into face-to-face and virtual lessons.

However, not all the subjects were covered as would be expected before the pandemic neither the main skills of the English language developed properly. In those circumstances, the virtual methodology and the reduced schedules gave an advantage to listening and speaking skills. Being concerned about that, the writer of the present investigation wants to adapt somehow the use of technologies with a novel strategy that awakes the interest of students, comics.

At the same time taking into consideration how the role of instructors and students changed because of the pandemic, the researcher considers this is an opportunity to take advantage of that and reinforce teacher's instruction and autonomous actions to learn that students can expand.

### 3.3 Framework

The extension of a study regarding the participants, topics, and circumstances mediating the investigation are fundamental points to be described in this chapter. There is a reason that answers the question Why that place? Why that group of participants? Or, how they were selected? In the following lines, those aspects are going to be explained in detail to the readers.

#### 3.3.1 *Micro*

This investigation is using a micro-sample because it covers only a group of students in 11<sup>th</sup> grade from the three that the institution has. The size is reduced compared with the real amount of similar possibilities existent in the context of the study. Also, the topic is delimitated to the implementation of only one strategy; the creation of comics by using it. In addition, the skills that the researcher pretends to improve are only reading and writing and the aims of this inquiry are going to be worked since the union of both in the same objectives.

#### 3.3.2 *Nature*

The objective of the act of investigating a particular topic is to enhance knowledge. For that, there are different methods used to collect data. For instance, qualitative and quantitative.

The qualitative methods their part involve the role of the researcher in the interpretation of data (Addington et al., 2007, p.140) the social context or individual characteristics of the participants receive interpretation that is analyzed by the researcher.

On the other hand, the authors explain that quantitative data is analyzed using standardized validations. (p.289) That means that graphics, tables, and any measurable way to present the collected information are implemented in this case.

A third method is known as mixed and joins both the qualitative and the quantitative. Watkins and Gioia (2015) explain that mixed methods give not only numbers but also perspectives that are used together to produce a conclusion regarding a topic.

The three explanations are given before providing the readers with an understanding of each method of investigation. The writer at this point clarifies that the present study follows the mixed approach contemplating instruments that provide measurable conclusions and the explanation of non-measurable aspects such as the social context by part of the researcher.

#### 3.4 Character

Different elements influence the character of an investigation depending on what the researcher pretends to do if there are variables that guide some results, the way of showing results, or the lack of knowledge about a topic in the research field. In the present investigation are two elements that give character to it; correlational and descriptive.

#### 3.4.1 Correlational

Voxco (2022) defines correlational research as the way two variables converge in the analysis of a study. (para. 1) In the present research the two variables on which results are going to depend are the creation of comics using ICTs autonomously and the enhancement of reading and writing skills as the researcher wants to refresh at this point sharing again the title of this investigation: Implementing the creation of comics using

information and communication technologies to enhance Reading and writing skills strengthening the autonomous learning of the 11-2 section at Marco Tulio Salazar Nocturnal High School during the second quarter of 2022.

## 3.4.2 Descriptive

Another character present in this analysis is the descriptive one which according to Child Care and early education (2022) refers to that research in which data set an examination of the correlation variables have had between them. (para. 2) That is possible thanks to the use of numbers and statistics that evidence different levels of information at different stages of the investigation.

### 3.5 Subjects

In the educational field of investigation, subjects are one of the most important parts of the complete analysis. They provide the information that in the end will validate the results. In this case, the subjects are presented by the participants considered during the analysis that is going to be described below.

# 3.5.1 Units of Analysis

It is also considered the focal point of a study. (Pressbooks, 2022, para.1) The people that it is observed and analyzed in the case of studies that involve participants. For the comprehension of this inquiry, the unit of analysis are the students on whom the researcher has centered the inspection and to who will be applied the instruments. For a better understanding that unit is divided into two narrower concepts which are the universe and the sample.

### 3.5.2 Universe.

Last January 21<sup>st</sup> in Costa Rica 56 878 students graduated from secondary public education. (Salazar, 2022, para. 2) Cartín (2020) elaborated on information for MEP that reveals that in 2018 were 17 183 students who were enrolled only in Desamparados in secondary public education. (p. 103)

Unfortunately, the information does not specify the number of students that were enrolled in the 11 levels. In the present year only in the nocturnal High School Marco Tulio Salazar, there are 440 students and 105 of them belong to the three 11<sup>th</sup> groups existent in the institution.

### 3.5.3 Sample.

To delimit the de number of participants, or in this case, the group which is analyzed must be determined by the researcher as part of the organization of his or her study. Sampling is an action that reduces the opportunity to improve more people's knowledge. (Soloff et al. 2005, p. 7) For the present study, the researcher is clear with that assumption. However, she considers the sample used is adaptable to the objective of her intention as an investigator.

The present research includes only one of the groups, specifically group 11-2 from Marco Tulio Salazar nocturnal High School.

## 3.5.4 Sampling

That sample was selected by convenience by the researcher considering the following particularities:

- a) It results in more manageable time expended with only one group from one institution than with a wider sample.
- b) The night schedule allows the researcher to develop the investigation in a population that is frequently ignored by investigators. Most of the time studies are developed in daily schedule institutions.
- c) The eleventh graders have higher knowledge in the second language received as part of the background that the system of education has given them in previous years.
- d) The sense of autonomy is more developed in students older than the ones in lower levels of secondary.
- e) The possibility of those students having access to devices and the internet increases with the superior levels.

The consideration explained in the previous lines lay clear to the readers how the sample was established by the researcher in this research and why.

Concerning the sample also it is important to mention certain details to understand the context that characterizes the participants. First of all, as was previously mentioned in this document; they live in urban areas around the institution that includes La Capri, Higuito, El Llano, San Miguel, and Los Guido. The last community mentioned is considered a marginal urban with a different social risk from the other towns around it.

The communities have the basic goods and services: electricity, water supply, garbage collection, internet connectivity provided by different companies, different religious congregations, stores, public transportation, reusable waste collection, medical

centers, police security, sports committee, cable TV, hardware stores, kindergarten, cemetery, and some other local businesses.

The common social difficulties faced by the communities are drug addiction, lack of employment to fulfill the population's necessities, severe road congestion, pollution, overcrowding, bad infrastructure conditions, delinquency, poverty, and drug trafficking.

Having grown up in one of these communities and living currently not far away from there, the researcher understands and knows very well the social situation that the students are exposed to.

#### **3.6 Sources of Information**

The construction of a document of investigation includes important contributions from literature and informative sites that are a solid base from which the writer starts shaping the writing part. Those works provide the investigator with ideas, guidelines, norms, or examples that are considered during the complete process.

Sources of information are divided into three different types. In this part of the paper, each of them is going to be explained briefly and illustrated using the most meaningful sources used in the first three chapters.

# 3.6.1 Primary Sources

As reported by Sotheby's (2022) a primary source refers to firsthand documents or information that in most cases was produced during the development of an investigation. (para. 3) The author exemplifies primary sources mentioning some primary sources such as interviews, autobiographies, diaries, and correspondence. Etc. The following table exemplifies in this case a primary source used in this document.

**Table 1. Firsthand Sources Used in the Research Process** 

Author	University or	Country	Year
	organization		
Johanna Ulloa	Ministerio de educación	Costa Rica	2022
	Pública de Costa Rica		

Source: Researcher creation.

The above table signals a personal communication made by Ulloa to the researcher during a conversation sustained about the present investigation project.

# 3.6.2 Secondary Sources

These kinds of sources are analyses, critics, explanations, or interpretations made of history, events, or literary works. In the secondary sources, all those appreciations are about a primary source. (UCI Libraries, 2022, para. 1)

To understand better what refers to a secondary source could be mentioned books, journal articles, scholarly articles, or government documents. For this document were used a higher number of secondary sources enhanced the robustness of each page along with the first three chapters.

The information obtained from those sources represents most of the valuable data that now is part of the route to follow by the researcher in this work of investigation and she feels enormous respect for each of the sources that have contributed to her study.

In the table presented below this paragraph the researcher shares some examples of useful literature belonging to secondary sources that were utilized by the researcher in the

present writing work. The writer wants to clarify that the table shows only some of them and that does work as an illustration for this section of the chapter.

**Table 2. Secondary Hand Sources Used in this Investigation** 

Author	Book Title	
Babic, A	Comics as history, comics as literature: roles of the comic	
	book in scholarship, society, and entertainment.	
Bowkett, S and	Using comic art to improve speaking reading and writing.	
Hitchman, T		
Flynn, N and	Learning and teaching of reading and writing.	2006
Stainthorp, R		
McCaffery, J et al.	Developing adult literacy: Approaches to planning,	2007
	implementing, and delivering literacy initiatives.	
Cartín, D	Indicadores Educativos Cantonales 2010 y 2018.	
	Ministerio de Educación Pública. Departamento de	
	planificación institucional.	
Wirth, K. Perkins,	Learning to learn.	2013
D		
Ministerio de	Política Educativa de promoción de Idiomas. Hacia una	2021
educación Pública	Costa Rica Bilingüe.	
de Costa Rica		

The previous table gathers some secondary sources present in this investigation. However, the researcher has used them in the table to illustrate and highlights that many others are part of this document.

# 3.6.3 Tertiary Sources

The tertiary sources as The University of Saskatchewan explain are the sources that include primary and secondary sources and to illustrate them mentions dictionaries, almanacs, indexes, and encyclopedias. (2022) Tertiary sources have been equally useful for the researcher who has taken advantage of the information the third type of source has to provide her during the production of this paper of study.

**Table 3. Thirdhand Sources Used in this Information** 

Britannica	Bilingualism. Editors of Encyclopedia Britannica	2021
Avilés, G	Retos y desafíos de la educación costarricense.	2012
Baltodano,	Prácticas didácticas mediadas con TIC por los docentes de	2017
M. et al.	la Educación General Básica de catorce regiones educativas de Costa Rica	
The	Strategy.	2022
Britannica		
dictionary		

### 3.7 Techniques and Instruments to Collect Data

The final section of this chapter has great importance because it is more detailed about what exactly is going to be done by the researcher in the next stage of the investigation. The instruments applied and the strategy designed by the researcher define the course of this investigation throughout the following chapters.

### 3.7.1 Instruments

The importance of the instruments in the collection of data has relevance not only regarding their selection but also their design and application. The intention of using instruments is to get the data needed to achieve the objectives formulated.

The following paragraphs are dedicated to the explanation of each of the instruments that the researcher pretends to use in the next stage of this study.

### 3.7.1.1 The Researcher

The first instrument taken into consideration in this inquiry is the researcher herself. She has in her hands the responsibility of conducting a well-designed process to achieve the final goal of this project; the enhancement of reading and speaking skills. She gives to the investigation the qualitative approach needed to contextualize the environment and activities for students.

Additionally, the understanding of the social background of students and their present reality only can be interpreted and transmitted from her perspectives through these pages. For that reason, the researcher is the first instrument readers must know before the application of the rest of the instruments and activities.

She grew up in Los Guido Desamparados which is located near San Miguel; the place selected for this investigation. When adult, she went to live in El Llano Desamparados, another place belonging to the district of San Miguel. She started her formation as a teacher in 2015 having a poor background in English as a Foreign language and as a result, she has struggled with different aspects of second language learning. Nonetheless, she considers the current situation and tendencies while teaching and has a stronger inclination toward listening and speaking.

That belief about listening and speaking has awakened her interest in aspects such as the acquisition of vocabulary and reading and speaking abilities. That is the case of this project of investigation in which the researcher has put all her interest and dedication expecting to contribute with a legacy of very useful information for other researchers but especially for learners.

### **3.7.1.2 Interview**

Edunote (2022) affirms that an interview is the first way to get information about an investigation. (para3) In the present study that is the intention that the researcher has with the development of the interview which is thought to be directed to the teacher of the group. The formal teacher has experience with the interaction of the group and knows details about the students and the way the course has been developed before the implementation of this study's activities.

The current teacher is the first chance the researcher has to understand how to implement the activities related to comics. The interview helps the researcher to create adequate materials and instructions to be assigned to the group and that allows the reaching

of the first objective proposed in chapter one of this investigation: To implement the creation of comics as a tool to work on writing and reading skills

according to the Information and Communication Technologies at Marco Tulio Salazar Nocturnal High School during the second quarter of 2022.

### 3.7.1.3 Observation

These instruments as same as the previous ones contribute to the success of the first objective. The observation, according to Delve (2022) is the way to perceive the individuals and the context in their natural scenario. (para.1)

The current investigation refers to observing the group in the classroom and considering the accustomed way to behave as students, with the teacher, and between them. For that reason, the investigator makes the observation using as a resource to document information a Checklist created especially for that day and the group selected.

### 3.7.1.4 Questionnaire

Bandari (2022) details how questionaries are made by different questions that intend to obtain data related to participation, attitudes, or points of view towards a specific situation or event. (para.1) The focus of the questionnaires that the researcher plans to apply is to measure the scopes of the student's levels in reading and writing before and after the implementation of the activities.

It results necessary to let clear that the questionnaires are answered by the students using surveys created in google forms as a way to implement technology in all possible aspects of the investigation and also to facilitate the flexibility of responding at any time the student can do it. That considering the activities are not developed during the lesson time.

The researcher considers it useful to apply a questionnaire before the implementation of the activities and another one after that implementation be completed.

In that way is possible to analyze the information required to attain objective two(
To validate the role of autonomous learning during the creation of comics and their use as
an assessment personal assistant at a public institution during the second quarter of 2022.),
three (To compare the improvement of reading and writing skills achieved with the
development of comics using Information and Communication Technologies autonomously
at a public institution during the second quarter of 2022), and four (To estimate the use of
Information and Communication Technologies about the student's reading and writing
skills improvement at Marco Tulio Salazar Nocturnal High School during the second
quarter of 2022.)

# 3.6.2 Strategy

The definition of the word strategy deserves a clear explanation at this point. By Britannica (2022) strategy means a methodology or planning implemented to achieve something in a determined period. As the definition states, a strategy requires a plan to implement looking for the final goal of a project.

With the clear goal of this study that pretends to produce an enhancement of reading and writing skills in the students, the researcher has defined her strategy to combine the use of ICTs and autonomous learning related to some instructed activities designed to create comics. In that sense the researcher guides the possible actions to take during the production of the tasks but, the final actions are the decision of each student independently.

With that autonomy put into practice, the students will improve not only their use of ICTs but also their literacy skills in the second language in an interactive way. As a result, comics will be the final product obtained from this planning or strategy implementation.

Having defined which instruments and strategies are going to be used by the researcher, this chapter ends at this point hoping to have clarified to the readers all the important elements explained in it. The final lines of chapter number three are going on the following chapter with the certainness of providing chapter number four with additional findings to benefit the learning experience of the group of participants.

### 3.7 Variables Chart

**Title**: Implementing the creation of comics using information and communication technologies to enhance Reading and writing skills strengthening the autonomous learning of the 11-2 section at Marco Tulio Salazar Nocturnal High School during the second quarter of 2022.

## **General Objective:**

To determine the impact on students' autonomous learning using Information

Communication Technologies to improve their reading and writing skills throughout the creation of comics at Marco Tulio Salazar Nocturnal High School during the second quarter of 2022.

**Table 4. Variables Chart** 

Specific Objectives	Variable	<b>Conceptual Definition</b>	<b>Instrumental Definition</b>	Operational Definition
To implement the	Comics as a novel	The instructed use of	Observation and	In the interview and
creation of comics as a	technique that requires	ICTs in the creation of	interview:	observation, the variable
tool to work on reading	the use of ICTs for their	comics as a resource to	Both instruments are	is valid through this
and writing skills	implementation.	improve reading and	going to be used as	instrument to obtain
according to the		writing.	starting point to obtain	preliminary data related
Information and			data about the students	to the students, their
Communication			and their relationship	level of use of
Technologies at Marco			with ICTs.	technologies in the
Tulio Salazar Nocturnal			The questionnaire I and	classroom, and their use
High School during the			II look for information	of comics as a strategy.
second quarter of 2022.			about the use that	In the questionnaires,
			students make of ICTs	the variable is valid
			for the improvement of	through these

			their reading and writing	instruments because the
			skills before the	data collected will allow
			implementation of	the researcher to analyze
			comics.	the role of comics and
			II: Pretends to obtain the	ICTs for the betterment
			same information as the	of the skills.
			questionnaire I but after	
			the implementation of	
			comics.	
To validate the role of	The validation of	The actions that	Questionnaire II will help	Questionnaire II: the
autonomous learning	autonomous actions	students carry out by	to determine how much	variable is valid through
during the creation of	made by the students to	themselves to develop	autonomous actions	this instrument since it
comics and their use as	reach the objectives	comics.	affected the betterment of	will show what was the
an assessment personal	established.		the skills that students	role of autonomy during
assistant at a public			achieved after the	the creation of comics.

institution during the			implementation of the	
second quarter of 2022.			new strategy.	
To compare the	The improvement of	The difference exists	Questionnaires I and II	In questionnaires I and II
improvement of reading	reading and writing	before and after the	will be compared to	the variable is valid
and writing skills	skills after the	implementation of the	analyze the effect that	through these
achieved with the	implementation of	activities as a way to	comics, ICTs, and	instruments that will be
development of comics	comics as a technique.	obtain an improvement	autonomous learning had	used by the researcher
using Information and		in reading and writing	on the improvement of	when she compares the
Communication		skills.	reading and writing	(before and after
Technologies			skills.	evidence in the answers)
autonomously at a				reading and writing
public institution during				skills of the students
the second quarter of				who are participating in
2022.				the present investigation.
To estimate the use of	The estimation of the	The measurement of the	The questionnaires I and	The questionnaires I and
Information and	use of ICTs that	use that students give to	II:	II: the variable is valid

Communication	participants report as	ICTs to reach the	Students will provide	through these
Technologies for the	part of their reading and	activity assigned.	throughout their answers	instruments when final
student's reading and	writing improvement.		the information on their	results are used to
writing skills			use of ICTs concerning	communicate
improvement at Marco			the improvement of	conclusions and propose
Tulio Salazar Nocturnal			reading and writing	recommendations for
High School during the			skills.	future investigations.
second quarter of 2022				

# CHAPTER IV ANALYSIS AND INTERPRETATION OF DATA

### Introduction

Previously chapter III explained the relationship that each of the instruments has with the objectives proposed in this investigation, intending to clarify to the readers the importance of the instruments at the time of collecting the data. This chapter presents the details of the information obtained using those instruments that were applied to the students of eleven grade: observation, interview, questionnaire I, and questionnaire II.

# 4.1 Diagnosis of the Current Situation

### 4.1.1 Instruments to Collect Data

Starting with the observation of the group and following with an interview with the teacher, the researcher had the opportunity to make to herself a primary impression of the behavior of the students, the environment of the group, the teacher's relationship with them, and the level of English that students managed at the moment. The following step was the first questionnaire which would gather relevant information directly from the students taking into consideration their use of technologies for didactic purposes specifically with the English language, their knowledge of comics in general, and their autonomy when learning English. The final step of the collection of data was applying the second questionnaire after the implementation of the activities, with that final part of the process the information collected was enough to be analyzed by the researcher.

### 4.1.1.1 Observation

This instrument was carried out on Monday, May 17<sup>th</sup>, 2022 for around 55 minutes.

There were present 27 students; 9 women and 15 men, they were using the formal uniform of the institution. The students are around 16 and 25 years old. In general, they were very talkative

during the lesson, but they were working on the activity from the book that the teacher assigned. The topic they were studying was "Use of landmarks to give directions". The observation was interrupted by the request received by the teacher to take the group to the dining room following the established schedule for meals that the institution has. However, the time was enough to observe some other aspects such as the ones mentioned in the following table:

**Table 5. Checklist observation** 

Aspect to be observed	Observed	Not Observed
The group looks confident with their teacher.	X	
2. They have an internet connection provided by the institution.		X
3. Students use English to formulate questions.		X
4. The professor uses only the English language during the lesson		Х
f) The classroom has technological devices	X	
g) Most of the students have a cellphone.	X	
h) The classroom is in good conditions	X	
i) Students work organized during the lesson		Х
j) The students have internet connections on their cell phones.		Х
k) There were alternative ways of communication as a group.	X	

Even though the institution has an internet connection and Wi-Fi, the students from the night ship could not use it due to some disagreements between workers from the day and workers from the night, either they had the opportunity to use the tv, according to was explained by the teacher to the researcher.

Additionally, it was observed in different moments that the teacher managed a WhatsApp group to communicate with the group and sent the practices studied from that app. Also, he offered to the researcher the possibility to use the same group as a way to send the instruments. Finally, it was evident that the students have a low level of English and the professor gave all the instructions and explanations using Spanish.

Before finishing the observation, it was allowed to the researcher introduced herself to the group and explained the dynamic for the following days with the comics activity. The reaction of the group was unexpected by the researcher but normal by the professor of the group. The students were not willing to participate except in exchange for some benefits (points). It was explained to them that extra points were not a possibility and their negative attitude from them was clear.

With the observation made the researcher understood that the group was not collaborative, however, the following instruments (questionnaires) were sent to them as part of the process of investigation planned.

### **4.1.1.2** Interview (to the teacher)

The interview was another important instrument implemented as part of the collection of data. It was made the same day as the observation after the lesson. There were prepared some brief questions that the professor very kindly answered. The table that follows, punctuates the most important details from that interview in a summarized way.

**Table 6. Interview Relevant data** 

Question	Answer
1. What is the level of English that the students from	Poor, unappropriated for eleven graders,
this group have?	deficient.
2. Have you ever implemented comics as a strategy to teach reading and writing in your lessons?	Never.
3. Do you use apps or technologies to teach reading	Only basic tools such as WhatsApp and the
and writing to the group?	projector.
4. From your experience as a professor what kind of	Summarizing, rewriting, skimming, and
strategies are better for teaching reading and	scanning
writing to the students.	
5. What do you think about using comics for	Could be a good option but not in MEP
teaching reading and writing?	system where time is not enough to go
	deeper with the different skills.

The professor was clear regarding the particular case of the eleven group that during the last two years of the pandemic had an academic setback. Additionally, he emphasized that those students are not the kind of persons that dedicate time to study, some of the students work and the only time they spend practicing English is the lesson time.

The interview allowed the researcher to understand better the academic context to which the students belong, aspects that prevent them from acquiring better English lesson objectives, and their real level of use of English.

## 4.1.1.3 Questionnaire I

This first questionnaire was created as a tool for getting the initial data from the students, unifying the three important aspects investigated in the present inquiry: autonomous learning, use of ICTs, and comics as a strategy for reading and writing improvement. The instrument was applied before the implementation of the activities and measures different aspects that are going to be detailed in the following graphs.

Results relevant to clarify that from the initial number of students that conformed to the group (35) only 27 were present during the explanation of the instructions given to the class.

Additionally to that explanation were sent a written explanation through the WhatsApp group.

Finally, the first questionnaire was answered by only 20 students from the group.

(See annex #1)

Students with access to internet connection 20 18 Yes 18 16 14 12 Sometimes 10 8 6 1 2 0 0 Yes Sometimes

**Graph 1. Internet Connection Access** 

The graph shows that most of the students in the group have internet connection in their daily life, the 9% is equivalent to eighteen students while the other 10% is equivalent to two students.

Is so important the analysis of the first question because allowed the researcher to know that all the students were able to develop the activities using the internet as a primary tool. The following aspect to be analyzed was the access to technological devices and 100% answered yes to the question Do you have any of the following devices for using the internet? (iPod, Computer, Kindle, Cellphone). Both aspects were mentioned together in this section due to the relationship between them.

Background of the students about comics

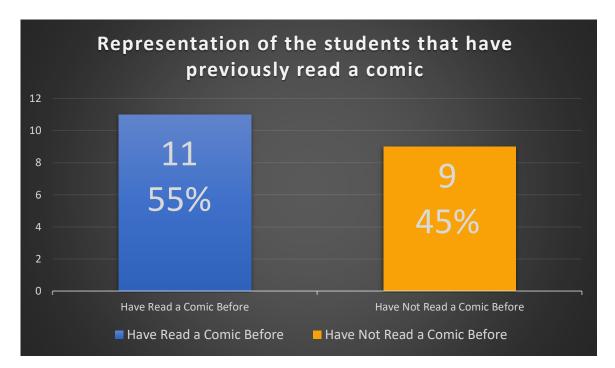
YES

18
16
14
17
85%
NO

**Graph 2. Knowledge About Comics** 

The previous graph evidence that most of the students in the group analyzed had some prior knowledge concerning comics and only three of them did not have any background in comics.

Even though, knowing comics does not necessarily mean having read one. That is why was considered important to ask the students through questionnaire 1 if they have read comics before and their answers are illustrated in the following graph.



**Graph 3. Previous Experience Reading Comics** 

Regarding the experience of having read a comic before, 55% of the people equivalent to eleven students answered yes, and 9 students gave negative answers that belonging to a 45% of the students that replied to the first questionnaire.

The researcher wants to elucidate that for the question made about previous experience reading comics as well as the following that asked the students their previous experience writing comics, there was no specification about the language. Concerning the next question related to writing the following graph shows the results obtained.

Representation of the students that have previously written a comic

20
15
10
1
5
5
No
Yes
No

**Graph 4. Previous Experience Writing Comics** 

Graph 3 presents to the readers that in the case of writing fewer students had some prior experience than those that did have prior knowledge of reading a comic. That demonstrates that in the case of the students of the group 11-2 from Marco Tulio Salazar Nocturnal Hight School reading is more likely to happen than writing.

For the writer of this investigation that confirms the necessity that educational programs have in terms of enhancing reading and writing together and promoting for students activities that strengthen those skills.

Having general information from the students and their reading and writing current situation results important to going deeper and showing data corresponding to their specific situation with the English language which is the intention of the following graphs.

Student's answers about their preferences regarding reading and writing in the English language

35%

25%

10%

Yes No Only Reading Only Writing

Yes No Only Reading Only Writing

**Graph 5. Preference for Reading and Writing** 

Graph 5 exposes once again the fact that most of the students do not like reading and writing at all. In this case, 7 students lead to this negative result. They are followed by 6 students that gave a positive result answering they like reading and writing in English. To continue, 5 of the participants prefer reading and finally, only two prefer writing. Data, in this case, corroborate that writing tends to be the skill that students like the least.

To relate this information from graph 5 with the next question that was: Do you receive English lessons dedicated only to reading and writing skill practice? It is necessary to measure the results obtained from that question that will be presented in graph 6.

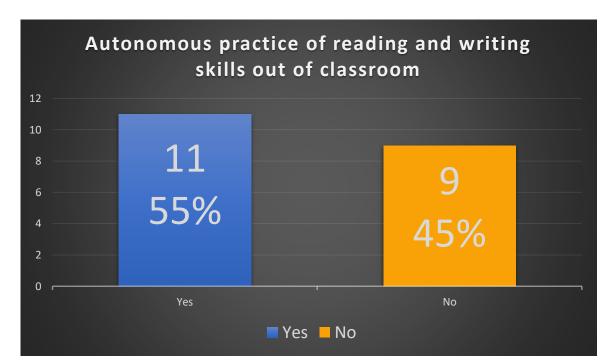
Students perception about the lessons dedicated only to reading and writing skills.

12
13
14
155%
6
4
2
10
Yes
No Sometimes

Graph 6. Lessons Dedicated Only to Reading and Writing

According to the information provided in the last graph, most of the students in the group consider there are lessons completely dedicated to the skills evaluated in the present study. Nonetheless, some of them also consider that dedication to those skills occurs only sometimes. On the other hand, there is a minority of two students that consider there is not an exclusive focus related to the skills. As it is noticed there are different perceptions in the same group that motivated the different answers. Although, as the researcher could verify the observation day, the students use a book and written practices during the lesson which means that the skills of reading and writing are somehow worked.

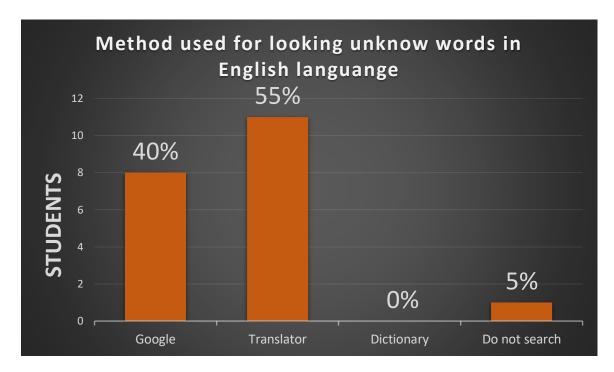
Another important object of study in this investigation is the autonomy of students while studying English. That is why in the first questionnaire were also included some questions associated with that whose results are going to be described from this line on.



Graph 7. Autonomous Study of Reading and Writing in the English Language

As graph 7 indicates, nine students recognized they do not study reading and writing out of the classroom, while eleven students said they do it.

As part of that autonomous actions, students have different immediate options that involve the internet when have doubts. For instance, when they do not know a word they use the following alternatives.



Graph 8. Tools Used by the Students When Looking for an Unknown Word.

The eleven graders revealed with their answers that whenever they need to look for a word unknown to them they use Google and a translator as common ways of obtaining the information required. Eight students use the first option and 11 sue the second one, while only one student said just do not look for the word. The graph also shows an important fact, the dictionary is not even an option. The participants do not use it in their autonomous actions when they study English. To continue, the participants answered the following question that referred to the use of apps in English in their daily life. That questions had the intention of investigating if the students had an additional way of applying reading and writing skills unconsciously. The results are shown in the following graph.

Students that use Apps in the English language

No; 11

Yes

Yes

No

**Graph 9. Use of Apps in the English language** 

To understand graph nine, it is important to mention that 55% corresponds to eleven students that use apps in English in their daily life and the other 45% is equivalent to nine students that do not use any app in English as part of their daily life. That means that not all the students have an indirect exposition to the English language through the use of apps that allow them to improve their reading and writing skills.

Continuing talking about apps the students were asked if they know any app used to make comics and the 20 students that answered questionnaire 1 said they do not know any app to construct comics. Almost at the end of the questionnaire, the researcher asked the students if they have any knowledge about the following apps: Linguee, Hi Native, Canva, Duolingo, Wannalisn, and Babbel Superhero comic maker, which are used to make comics. The results of that question are exhibited as follows:

Knowledge about some apps used to make comics

9

7

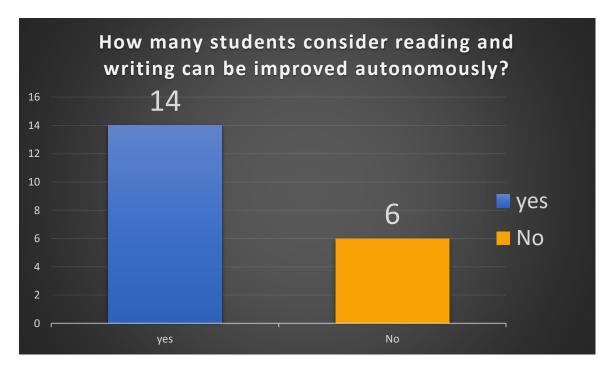
All of them No one Only 1 Only 2 Only 3

**Graph 10. Prior Knowledge About Next Apps** 

As can be seen in the graph, most of the students (9) only evidence knowledge of one of the apps, 7 students knew two of the apps, 2 students answered they did not know any of the apps, 1 student reported knowing three of the apps, and 1 student did know all apps.

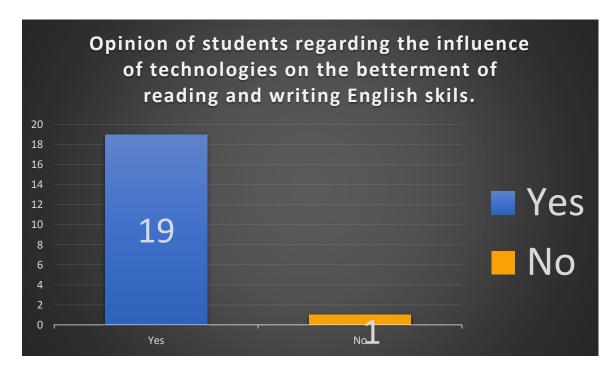
That knowledge shown in the answers by some students does not mean that they had used those apps for specific purposes such as making comics. To know those apps does not mean having used them.

Graph 11. The Capability of Improving Reading and Writing by Studying Autonomously According to the Participant's Opinion.



14 Students selected the option yes when they were asked if they consider studying autonomously as a way of improving the two skills analyzed in the present study. The remaining 6 students chose option no.

As the final question, the students answered if they considered technologies can improve reading and writing skills. 19 students considered at the moment that technologies do help to the betterment of reading and writing and only one student considered technologies do not contribute to that betterment as it is presented in graph 12.



Graph 12. Use of Technologies Help to the Betterment of Reading and Writing Skills

A high number of the sample agreed with the possibility of enhancing reading and writing English skills with help of technologies.

This way finishes the graphic presentation of the results obtained from questionnaire 1 which was applied to the students before the implementation of the comics activities. Data collected contributes to the analysis that will be made later in this investigation to compare the results from both questionnaires and how comics affected the student's experiences with reading and writing skills developed autonomously with the use of ICTs as a resource.

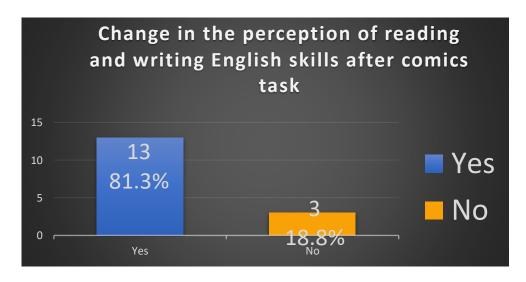
## 4.1.1.4 Questionnaire II

After the implementation of the activity proposed by the researcher which was the creation of a comic by part of the students in an independent way and out of the classroom, the students were ready to answer a second questionnaire. It is relevant to explain here that this time the questions were answered only by 16 students of the sample, maybe as a consequence of the lack of benefits expected by the students as was explained before in this chapter.

The first question analyzed in this part of the document was: Has changed your perspective about reading and writing in English after the activity made? The participants answered in the following way.

(See Annex #2)

Graph 13. Change in the Perspective of Reading and Writing in English After Comics activity.



**Source:** Questionnaire 2 Applied to the students.

The graph shows a change in the perspective of 13 students in terms of reading and writing in English however, does not go deeper into specific aspects to analyze why that perspective changed or why three of the students did not report a change of perspective.

Adjectives to describe comics activity

31,3%
31,3%
18,8%
18,8%

Entertained Difficult Boring Artistic

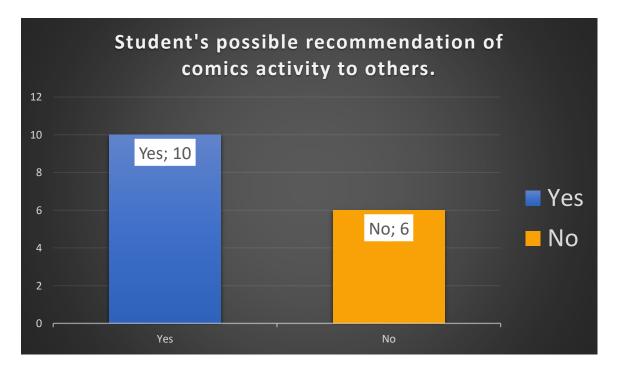
**Graph 14. Perception Manifested by the Students About Comics Activity** 

**Source:** Questionnaire 2 Applied to the students.

In the last graph, 5 students chose entertained as the objective used to describe the activity made. Other 5 students oriented their answer to the adjective difficult while 3 of the 16 students that answer this second questionnaire considered the activity boring. On the other hand, 3 students decided the activity was artistic.

The results explained in graph 14 are closely related to the results that are presented in the following graph which shows the possibility of recommending comics as a way of learning reading and writing in English.

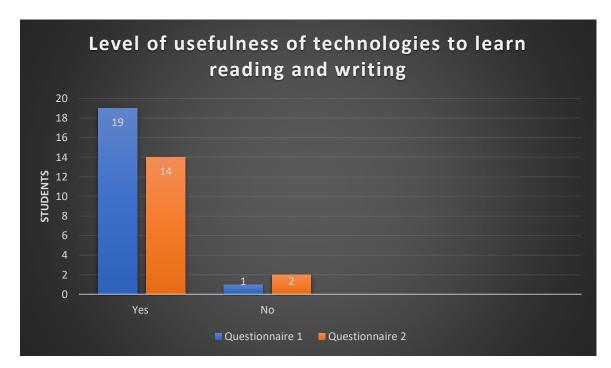
Graph 15. Recommendation of Comics Activity as a New Way to Learn Reading and Writing in the English Language.



Graph 15 measures the possibility existent that students recommend to other learners comics activities as a method for improving reading and writing skills in English.

From the following graph, the researcher decided to present the results showing a comparison existent between questionnaires 1 and 2 in which the same questions were formulated for the students before and after the comics activity respectively.

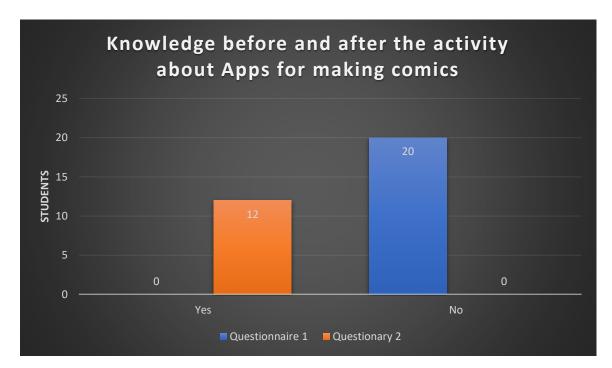
It is essential to remember to the readers that 20 students answered the first questionnaire but only 16 answered the second one.



Graph 16. Technologies Might Help Reading and Writing Skills in the English Language.

According to the students that answered before and after the activity the question: Do you consider that the use of apps and technologies might help reading and writing skills in the English language? , the use of technology for most of them contributes to the betterment of their English skills.

The answer yes in both opportunities was the selection of most of the students asked in this investigation.



**Graph 17. Knowledge About some Apps Used to Make Comics.** 

The graph above shows in both columns there is a 0 result that corresponds in the left column to those that knew apps to make comics before the implementation of the activities. In the case of column right, the 0 corresponds to those that after the activity did not know any app to make comics.

That is a positive result according to the researcher that considered the activity provided the students with new tools to improve their reading and writing skills.

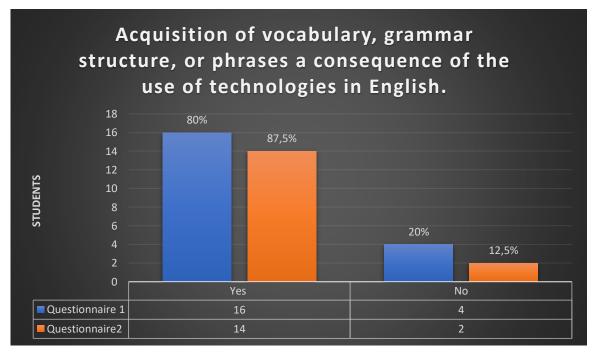
Use of Apps in student's daily life to improve Reading and writing skills in English

15
10
5
0
Yes
No
Questionnaire 1
Questionnaire 2

Graph 18. Use of New Apps to Improve Reading and Writing Skills in English

As can be observed in graph 18, the use of Apps in the English language as part of the daily life of students had an increment among the participants after the comics activity.

**Graph 19. Progress Obtained by the Students in Their Reading and Writing Production Through the use of Technologies** 



Finally, to close the presentation of the results obtained in this investigation it is shown in the last graph the answers to 2 questions are related between them but not the same.

The question asked in the first questionnaire was: Have you ever learned vocabulary in English while using some Apps or web pages? In contrast, for the second questionnaire, the question was: Did you learn new ways to read or write dialogs, sentences, expressions, or paragraphs after having made the comics activity?

The graph evidences an enhancement perceived by the students in terms of their acquisition of knowledge occurred as a consequence of their production of comics which was done autonomously using the help of ICTs.

# **Chapter V**

# **Conclusions and Recommendation**

#### **5.1 Conclusions**

Considering the line established by the researcher in this investigation that gathered 3 different aspects for a deeper analysis: Autonomous learning, the use of ICTs, and comics as a possible strategy of learning, and their direct relationship with the betterment of reading and writing English skills, it is propper to remember at this point that those aspects were part of the research question that considered them a novelty in the learning process. Thus, each of the objectives proposed by the writer finds out after the analysis of data their scope as will be detailed after this paragraph.

## 5.1.1 Concerning the General Objective

The group analyzed in this investigation evidenced a positive impact on their reading and writing skills after the combination of their use of ICTs autonomously for making comics. The actions carried out by the participants in conjunction with the incorporation of information and communication technologies for developing the task assigned improved their reading and writing performance.

### 5.1.2 Concerning the First Specific Objective

After having received guidance and instruction by part of the researcher in her role as a teacher, the students from Marco Tulio Salazar Nocturnal High School were able to produce themselves comics while strengthening their reading and writing skills through the use of ICTs as their main source of learning.

## 5.1.3 Concerning the Second Specific Objective

The autonomy was implemented by the students for making comics and developing a reading and writing process in which they had to manage their progress and after evaluating with questionary 2 the achievements produced in those skills during the process. The results of the self-evaluation confirmed that autonomous learning is a valid way of getting knowledge when the students receive the correct guidance.

## 5.1.4 Concerning the Third Specific Objective

Both questionnaires applied to the sample were essential to compare the improvement reached by the participants as a result of the implementation of the comics activity. Was demonstrated that it is possible the enhancement of reading and writing skills when incorporating autonomously the use of ICTs in the development of a final product which was the comic. Thus, the third objective was successfully attained.

#### 5.1.5 Concerning the Fourth Specific Objective

Information and communication technology's use among students was measured by the researcher with the instrumentation selected. The fourth objective was accomplished through the answers provided by the students that determined that the use of ICTs experimented changes due to the activity proposed and those changes were in benefit of learners.

#### **5.2 Recommendations**

In the concluding stage of this document of investigation, the researcher suggests some important points aiming for, new alternatives, autonomy management guidance, and better use of technological tools in second language education. Furthermore, it is recommended to future investigators and teachers of English as a second language to take this document as the base for

the development of others that expand in theory what in the practice can provide learners with the highest quality in different learning environments.

- The constant training of teachers in the use of information and communication technologies to be updated with new ways of teaching according to the technological era and globalization requirements in the educational field.
- The implementation of comics as a new strategy for teaching reading and writing synchronous and nonsynchronous modalities.
- To guide the students in the development of more autonomous activities that allow them to identify their capability for improving their second language acquisition.
- Institutions should procure access to internet connection during the lessons to allow teachers to digitalize frequently the lessons as well as to allow students to be more familiar with that method of learning.
- To defend the use of only English in the class and encourage the students to use it as well.
- To take advantage of social media, and technologies to expose students to content in English for out-of-class time.
- To develop more investigation projects with adults considering their ways of learning and methods for motivating them not only in the classroom but also out of the classroom.

# **Chapter VI**

**Proposal** 

## **6.1 Proposal Title**

Improvement of grammar structures in short texts through the use of comics using digital environments and promoting the autonomous production of content.

#### **6.2 Institution Information**

Marco Tulio Salazar Nocturnal High School is an institution with adolescent and adult students. The institution is located in San Miguel Desamparados and has a population of 440 learners that had faced a pandemic and as a consequence have many weaknesses with the English subject. After having implemented the creation of comics as a new strategy for enhancing literacy, this investigation proposes to improve the strategy by adapting it to the betterment of grammar structures supporting the use of technologies, and promoting independence in the creation of topics.

## **6.3** General Objective

To improve grammar structures in short texts throughout comics using digital environments and promoting the independent production of content at Marco Tulio Salazar Nocturnal High School San Miguel, Desamparados.

### 6.3.1 Specific Objectives

- a) Identifying the grammar weaknesses of students in their writing production.
- b) Reinforce grammar structures by using digital environments.
- c) Evaluating the independent production of comics as a way to measure the effectiveness of grammar instruction provided.

## 6.3.2 Content and Proposal Activities

The final step to conclude this investigation is to share with the institution some activities that can be used as materials to improve the grammar structure of students. The activities are thought by advanced level learners that manage enough vocabulary. Some resources are taken from YouTube.

Table 7. Activity 1

Activity 1: Recognition and analysis of	https://youtu.be/jul2urONzOQ	
elementary parts of a sentence.		
The students are going to watch a video analyzing grammar information. Then, they will create		
a chart as a way of summary in which they explain all the parts mentioned in the video and		
provide examples. If it is possible the students a	are going to present their chart to the class.	
The char will be used in all the lessons as guide	when writing short texts.	

## Table 8. Activity 2

<b>Activity 2</b> : Identification of grammar	https://youtu.be/bq8eOm0zEIs
structures in a text.	
The students are going to listen and read at the same time a text and will identify grammatical	
components present in the text. They will create a written work to provide the analysis to the	
teacher, this way, the teacher will be able to eva	luate the understanding of the students
regarding grammar structures.	

## Table 9. Activity 3

## Activity 3: Written Production

https://youtu.be/ae61kGNpQPs

The teacher will instruct the students to watch a video that explain how to write a text and will function as guide for the writers. Then, they will write a short text to apply grammar knowledge and demonstrate the domain of grammatical structures they have achieved.

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# Annexes

## **Annex 1. First Questionnaire**

1.	1. Do you have access to internet connection?		
	(	) Yes	
	(	) No	
2.	Do	you have at least one of the following devices to use internet? (Computer, cellphone,	
	kin	kindle, iPod)	
	(	) Yes	
	(	) No	
3. Choose your age range.		oose your age range.	
	(	) From 15 to 20	
	(	) From 21 to 25	
	(	) From 26 to 30	
	(	) Older than 30	
4.	Do	you know What a comic is?	
	(	) Yes	
	(	) No	
5.	6. Have you ever read a comic?		
	(	) Yes	
	(	) No	

6. Have you ever wrote a comic?

	(	) Yes
	(	) No
7.	Do y	you like to read and to write in English?
	(	) Yes
	(	) No
	(	) Only reading
	(	) Only writing
8.	Do y	you receive lessons dedicated specifically to the practice of reading and writing?
	(	) Yes
	(	) No
	(	) Sometimes
9.	Out	of high school, do you study reading and writing by your own?
	(	) Yes
	(	) No
10.	Whe	en you need to find the meaning of a word you do not know, you:
	(	) Search it in Google
	(	) Search it in a specific translator
	(	) Search it in a dictionary
	(	) Ask someone
	(	) You do not search it
11.	Do y	you use Apps in English?
	(	) Yes
	(	) No

12. Do you know Apps use to construct comics?

	(	) Yes
	(	) No
13.	Do y	ou know any of the following apps: Linguee, Hi Native, Canva, Duolingo,
	Wan	nalisn, Babbel Superhero comic maker?
	(	) All of them
	(	) None of them
	(	) Only one
	(	) Only two
	(	) Only tree
14. Have you previously learned words in English by using an app or web page?		
	(	) Yes
	(	) No
15.	Do y	ou think you can improve your reading and writing skills in English by studying
	inde	pendently?
	(	) Yes
	(	) No
16.	Do y	you think that the use of technologies can help to improve reading and writing skills in
	Engl	ish?
	(	) Yes
	(	) No

## Annex 2. Second questionnaire

1.	Did you read some comic after having done the activity proposed by the teacher?	
	(	) Yes
	(	) No
2.	Has	changed your perspective about reading and writing in English after the activity
	made?	
	(	) Yes
	(	) No
3.	Are	you using new apps for read and write in English in your daily life after having
	don	e the comics activity?
	(	) Yes
	(	) No
4.	4. Do you know some apps used to make comics?	
	(	) Yes
	(	) No
5.	Did	you learn new vocabulary as a consequence of the comics activity?
	(	) Yes
	(	) No
6.	6. Did you learn new ways to write dialogs, sentences, expressions or paragraphs at	
	have made the comics activity?	
	(	) Yes
	(	) No

7.	7. D	o you consider that the use of apps and technologies might help reading and
	writi	ing skills in the English language?
	(	) Yes
	(	) No
8. Did you like the experience of making comics?		
	(	) Yes
	(	) No
9. Would you recommend comics as a way of learning to read and write in Er		ald you recommend comics as a way of learning to read and write in English?
	(	) Yes
	(	) No
10. Do you consider the comics activity was?		you consider the comics activity was?
	(	) Entertained
	(	) Difficult
	(	) Boring
	(	) Artistic