

CAPÍTULO VIII

ENHANCING ENGLISH WRITING SKILLS THROUGH SIMULATED STORYTELLING ENVIRONMENTS

MEJORAMIENTO DE LAS HABILIDADES DE ESCRITURA EN INGLÉS A TRAVÉS DE AMBIENTES DE NARRACIÓN SIMULADA

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1. Introduction

Writing is considered an essential skill in the English language teaching learning process, as students have to explain their ideas while producing the language properly in written form. In fact, writing is one of the most challenging skills for students because it is necessary to have certain knowledge of grammar and vocabulary to be able to express ideas productively.

Considering that writing also comprises organization, grammar coherence, cohesion, and mechanics, students often face difficulties when writing stories. Based on that, the research question that guided this work was, what is the impact of storytelling on English writing skills by using simulated environments among second year high school students at a public institution in Loja city? School year 2022-2023.

Therefore, to conduct this study, a practical action research and a mixed method using a pretest and a posttest for collecting quantitative data, were used as instruments to identify the impact of simulated storytelling environments on English writing skills. Besides, field notes were used to collect qualitative data in order to corroborate and support quantitative data. All data collected were interpreted applying descriptive analysis and thematic analysis.

The results showed that the total average score of students in the pretest was 5,63/10 before the intervention, and in the posttest was 7,88/10 after the application of simulated storytelling environments as a strategy to enhance their writing. In addition, the results indicated that the use of simulated storytelling environments allowed second year high school students to feel more motivated, engaged in their learning process, and creative when generating stories in simulated environments. In conclusion, students were able to improve their writing skills, mainly in the components of punctuation, capitalization, verb agreement, and coherence.

The chapter includes the introduction section which presents the research work, the theoretical framework describing the main conceptualization of the variables researched, the results obtained through the research instruments, the discussion, and the conclusions drawn from the study.

2. Theoretical framework

Simulated Environment

A simulation environment is viewed as a technological tool of a computer where reality can be recreated. Sharma (2015) defines it as the imitation of the real world in a virtual environment that exactly represents the operation of a real process. Furthermore, she comments that the use of a simulated environment has been taking an essential role to enhance the capabilities of different disciplines like medicine, engineering, informatics, business, and education. In general, "A simulation is a model that mimics the operation of an existing or proposed system, providing evidence for decision-making by being able to test different scenarios or process changes" (Training Within Industry [TWI], 2021). Likewise, Kaufman (2010), and Sauvé (2010) mention that "a simulation requires a simplified, dynamic and valid representation of reality defined as a system" (p.17).

It can have various purposes as the following:

Simulations can be used to tune up performance, optimize a process, improve safety, testing theories, training staff and even for entertainment in video games! Scientifically modeling systems allows a user to gain an insight into the effects of different conditions and courses of action. (TWI, 2021)

Looking at that information, the simulation environment can be defined as a system on a computer that imitates a process of real life in a virtual environment where users are able to experiment and practice a dynamic reality in order to improve their capacities to solve problems and to increase their knowledge.

Simulated Environment in Education

Previous studies have reported that simulation environments are usually carried out in the field of medicine and engineering since, through this innovative technique, people can avoid the high costs and risks involved in practicing them in real life. However, this has been taking an important place in education. Kaufman et al. (2010) identify two types of categories for simulation which are "simulations in the sciences and engineering that are used to experiment and test hypotheses, and training simulations that offer environments that simplify reality and allow learning without the risks inherent in certain "live" situations" (p.7). This is confirmed by Sharma (2015) who recognized simulation as a tool that can be used in different areas of work and disciplines with the purpose of enhancing the capabilities of either doctors, administrators, computer professionals, executives, engineers, students, or teachers. What is more, this author emphasized why simulation is needed for education, specifically for teacher training. Thus, Sharma (2015) argues that:

In Teacher education also, the training is given to the student teachers in a simulated environment in multifold ways. In this way, the real students can also be saved from the experimental teaching of student teachers. Hence there is a need for simulation in Teacher education too. (p.12)

This is how simulated environments have been achieved to occupy a crucial role in the educational area. It allows future teachers to practice their teaching methodology and analyze their own mistakes in order to obtain the educational goals successfully.

Learning in simulated environments

On the one hand, simulation has shown that it is for teacher training purposes, but on the other hand, it also has a learning approach that focuses on how

students can learn through a simulated environment. For instance, Kaufman et al. (2010) pointed out “The simulation is a simplification of elements of reality that can be more enriching than the real experience, notably through reduction of time and distance from details which are not necessary for the learning” (p.7). Besides, they stated that simulation is totally different from real life since this tool allows students to engage and be aware of their own learning process without taking risks. Similarly, Bean & Oliva (2008) published a paper in which they mentioned that “Most of the learning using simulators comes from understanding what goes wrong. As a result, a simulator allows students to greatly speed up the time required to learn these lessons without the consequences of real-life experiences” (p.5).

Therefore, the use of simulated environments creates a fictional environment from real experiences in which students can take an active role in their own learning. At the same time, they will be able to improve their abilities and their comprehension capacity of the learning process avoiding problems and dangers that can be presented in real life. In fact, Barahona et al. (2016) in their research paper concluded that it is advisable the application of such technological strategies since these create the criticism, constructivism, and active participation of learners as well as provide opportunities to interact and collaborate in a pedagogical context. Likewise, they declared that through simulated environments, students can develop their capacity for interaction between themselves and the virtual environment.

Virtual Environments for learning a second language

In 2010, Kaplan-Rakowski published a paper in which she described some features of the virtual environment for foreign language instruction: “unique communication tools and immersive settings facilitating situated learning” (p. 307). She also mentioned some studies that researched the possibility that

students can acquire a foreign language through the use of a virtual environment as a starting point for teachers. Since, according to her, the incorporation of virtual environments into teacher classes allows students to obtain meaningful learning and develop it in an appropriate context. Closely, Devos et al. (2021) defined simulation “as a method to teaching a language” (p. 2). Besides, those researchers said that simulation is the ability to recreate or simulate professional activities or situations from real-life that students should develop depending on the functions of a foreign language (Devos et al., 2021, p.2).

Simulated Storytelling Environments

Storytelling definition

For McDowell (2021), Storytelling means “telling a story within the dynamic triangle of the story, the teller, and the audience” (p.1224). Likewise, Mohammed & Khudhair (2017), argue that “storytelling is the use of stories or narratives as a communication tool to value, share, and capitalize on the knowledge of individuals” (p. 4). Therefore, this term tends to be used to refer to the act or art of writing or telling stories from the real world or the imagination and can be carried out for informational, entertainment, or educational purposes.

Storytelling in language learning

In the field of language learning, various definitions of Storytelling are found. For Rizal (2021), this technique is an appropriate way to help students connect the content of instruction and entertainment. What is more, this author points out that using Storytelling in classrooms contributes to students’ language skills since they can apply the language in context and practice it, at the same time that they learn new vocabulary and develop their imagination. Rizal (2021) argues that “By using storytelling, students have an experience with real life communication and they will be motivated to make the effort to understand the story” (p.48).

Besides, he states that telling stories is a powerful and amusing way through which learners can enjoy and feel excited to learn in a comfortable condition. Likewise, Lucarevschi (2016) mentioned that "storytelling promotes the development of language skills in L2, because it boosts learners' motivation to learn a second or foreign language, promotes social interactions among learners and between learners and teachers in the L2 classroom" (p.40).

Elements of Storytelling

This section presents some of the main elements of storytelling that every writer or storyteller should use to create a well-structured story. Some researchers have shown different opinions about what are the most essential elements to write a story. For instance, it is the case of Çetin and Çetin (2021) who developed their research based on six elements which are characters, settings, the beginning of the problem, the problem, the solution, and the end of the story. Also, they stated that the student's knowledge of the story elements directly affects the production and the number of words of a story.

On the other hand, there are some researchers who identified other elements for storytelling. That is the case of Yousef (2019) that defined the following elements; the setting, the problem, the action, the group of events, the resolution, and the theme. This author describes the setting as a place and period of time where is carried out the story; the characters as who develop the actions; the problem as the situation that has to be solved; the action as what the characters do to resolve the problem; the series of events that occur in order to reach the end of the issue, the solution that characters find to overcome the situation; and finally, the theme which includes a summary of what the story is about or a moral.

In short, the elements of storytelling, the setting, the characters, the problem, the solution, and the plot, are necessary to carry out a successful process of telling a story (Çetin & Çetin, 2021; Yousef, 2019).

Storytelling styles: traditional and digital storytelling

Previous studies have reported two different forms to use storytelling, traditional storytelling, and digital storytelling. "Traditional and digital storytelling is a powerful literacy tool which engages students in making connections between pedagogy and academic content" (Lisenbee & Ford, 2017, p. 129). Traditional storytelling refers to the act of telling or writing stories that involve gestures, pictures in the storybook, intonation to tell the stories, and the sounds and songs applied to narrate (Ahmad & Yamat, 2020; Lisenbee & Ford, 2017). On the other hand, digital storytelling is meant as a way to tell stories but using technology. Thus, it can be defined as a computer-based program that allows students to use different digital materials (Ahmad & Yamat, 2020; Lisenbee & Ford, 2017; Lucarevschi, 2016).

Digital Storytelling for educative purposes

This section shows what is meant by Digital Storytelling in education. According to Towndrow and Kogut (2020), digital storytelling is "a social process that represents and offers opportunities for teachers and learners to explore, document and communicate their histories and personal growth in critical and reflective ways" (p.148). These authors see digital stories as a pedagogical and social practice that teachers and students can use in the classroom. According to them, the implementation of digital storytelling in education depends on several factors like the students' interests, teacher's knowledge, and beliefs, access to resources and materials, and mainly the general and specific educational objectives. Also, they state that it is important to allow students to tell their stories or experiences in the first-person expression rather than the third person since it helps learners to personalize their own learning and be more innovative. Similarly, Alismail (2015) uses the term Digital Storytelling to refer to "one of the multimedia

tools that can support teaching and learning as well as students' motivation" (p.126).

Basically, Digital storytelling consists of telling a story using computer-based technologies and resources that help students feel motivated and allow teachers to overcome some of the problems that arise from the use of technology in their classrooms (Robin, 2008; Alismail, 2015). This technological strategy involves a mixture used of interactive digital sites and digital multimedia like images, recorded audio narration, sounds, text, video, graphics, movements, and music to present the stories and interactive digital sites (Alismail, 2015; Robin, 2008; Towndrow & Kogut, 2020).

Benefits of applying Digital Storytelling in education

Over time, the necessity of introducing technological resources in education has been increasing, as it has been demonstrated in several kinds of research how beneficial the application of these resources can be in active learning. Therefore, Digital Storytelling is seen as a beneficial technological platform in the educational field since it brings some significant opportunities to engage students in the learning process (Goldingay et al., 2018). Thus, some researchers have found several benefits of the implementation of Digital Storytelling in education. For example, Moradi and Chen (2019) recognize that Digital Storytelling has become a powerful resource that improves learning and involves "content material, subject matter, critical thinking, information literacy, and motivation" (p.2). Besides, they mentioned using digital resources to tell stories, where students are able to include images, text, video, music ...etc, can help them to improve their communicative and collaborative abilities. These authors concluded that digital storytelling engages and stimulates students in the teaching-learning process as well as provides them with meaningful learning experiences.

Similarly, other authors have recognized that digital storytelling is a literary tool that contributes to students' knowledge and real-world experiences, in addition to enhancing students' social skills. This is what Lisenbee and Ford (2017) mention in their research when they compare the effect of traditional and digital storytelling. These authors express that "both digital and traditional storytelling seemed to provide students with practice of the 21st-century skills of collaboration, problem-solving, critical thinking, and creativity" (p. 136). What is more, Lisenbee & Ford (2017) assert that traditional and digital storytelling is appropriate and beneficial for learning because it involves not only social interaction but also knowledge construction from academic standards.

Effects on English writing skills through Digital Storytelling

Previous studies have shown that Digital Storytelling has some benefits on Students' English writing skills. The research carried out by Zakaria & Aziz (2019) concluded that the application of the Digital Storytelling technique to English as a second language improves the students' narrative writing skills. In addition, they mention that since this tool involves the use of technology, it captures the learner's interest in writing stories through digital resources. Moreover, Yamaç & Ulusoy (2016) advocate for the integration of Digital Storytelling to improve the student's writing skills. Their findings show that this digital technique helps learners enhance their writing quality such as organization, word choice, learners' ideas, and sentence fluency, as well as change the student's literary perception. Besides, Yamaç & Ulusoy (2016) consider that "the digital storytelling also created a learning community by improving interactions among students in the classroom, and increased their motivation to write" (p. 59).

Digital Storytelling tools for writing skills

Currently, the use of digital tools for language and literary skills is taking an important role in the teaching and learning process for different purposes. In the

breadth of resources that technology now provides, there are several tools available for the implementation of Storytelling that help the development of language skills such as reading, listening, speaking, and writing. However, the present research is only focused on writing skills and for that reason, it reports some digital storytelling tools which can be useful for writing:

- Storybird
- Story Jumper
- Storyboard that
- My storybook
- Storyboarder
- Wattpad
- Fanfiction.net
- Boords

Figure 1

Example of a story in Storybird



Note. Retrieved from Storybird - Read, write, discover, and share the books you'll always remember, 2022, Storybird (<https://storybird.com/writers/>)

Writing Skills

Writing can be considered as one of the most challenging skills in English learning. Like speaking, writing is a productive skill that involves a complex process and the use of several abilities (Bulqiyah et al., 2021). Likewise, Javadi-Safa (2018) supports this, by saying that writing is difficult not only for EFL learners but also for native speakers because of the characteristics and factors of writing which make it important to learn. In addition, Selvaraj and Aziz (2019) explain the importance of writing abilities in modern times. They add that managing good writing skills is crucial for professional life, as most jobs today require writing assignments. Therefore, they said that "it is vital to equip oneself with good writing skills to get appointed and to be disclosed to more job opportunities" (p. 452).

Apart from this, previous researchers have reported different definitions of writing. According to Nunan (2011) "writing is a developmental process that begins with copying familiar letters and words, and moves through to the production of a range of text types and genres, such as reports, instructions, and narratives" (p.45). Also, this author identifies writing as an "unnatural" ability as same as reading due to, unlike speaking, these two skills are not learned spontaneously, so writing requires many years of practice and application. Harmer (2004) shares Nunan's position since he says that "Spoken language, for a child, is acquired naturally as a result of being exposed to it, whereas the ability to write has to be consciously learned" (p.3).

Writing for different purposes

Various purposes can be identified through writing that gives rise to different types of writing. Some have the purpose of informing, explaining, entertaining, persuading, expressing, arguing...etc. In fact, there are some texts that can be more formal than others, such as writing a letter to a friend or relative, a diary, an email, or writing a scientific article or an essay. However, each has a purpose that

will give rise to a type of text as mentioned above, a genre (book chapters, books, encyclopedia entries, journal articles, commentary and op-ed pieces, book reviews, editorials, newspaper, magazine articles, and blogs), and a register (Harmer, 2004; Nunan, 2011; Bailey, 2003).

Cohesion

Harmer (2004) states that cohesion is a technique that helps writers realize how clear and readable their text is. In addition, he mentions two types of techniques for observing cohesion: lexical cohesion and grammatical cohesion. On the one hand, lexical cohesion refers to those words which are in the same lexical sets and use the repetition of words or lexical set 'chain'. On the other hand, grammatical cohesion helps the reader know what the writer is referring to at different points in the text, even though nouns can sometimes be replaced by pronouns (Harmer,2004). This author divides grammatical cohesion on:

- ↪ Pronoun and possessive reference
- ↪ Article reference
- ↪ Tense agreement
- ↪ Linkers
- ↪ Substitution and ellipsis

Coherence

The Department for Children, Education, Lifelong Learning and Skills (DCELLS) (2010) reports that "coherent text is one that 'hangs together' and is created mainly through the effective use of connectives/conjunctions and signal words and phrases" (p.100). Moreover, Zemach and Rumisek (2003) say that "Coherence is related to unity. Ideas that are arranged in a clear and logical way are coherent. When a text is unified and coherent, the reader can easily understand the main points" (p.82).

Register

Harmer (2004) defines register as “a word used to denote the actual language that we use in a particular situation when communicating with a particular group of people” (p.26). Besides, this author says that the register implies not only the choice of appropriate topic vocabulary but also the tone of a written piece since it could be formal or informal. (Harmer, 2004).

Mechanics of writing

The mechanics of writing is an essential component for EFL students because the knowledge of these mechanisms facilitates the construction of a well-written text or essay avoiding long sentences, a good comprehension of the text, and a well-paced, smooth read (Altakhaineh & Al-Jallad, 2018).

Some of the most important mechanisms of writing are presented below:

- 1. Spelling:** it is the right arrangement of the letters that make up every word (Nordquist, *The Mechanics of Writing Composition*, 2020). This mechanism can be considered one of the most irregular and therefore difficult to handle in the English language. However, there are several rules that help to develop good spelling and to differentiate those words that sound the same but are spelled differently which are called homophones (Harmer, 2004).
- 2. Punctuation:** it refers to those signs that separate or link clauses, phrases, and words to organize the text and achieve a better understanding of it (Nordquist, *The Mechanics of Writing Composition*, 2020). Therefore, this category includes punctuation marks such as commas, colons, apostrophes, dashes, exclamation marks, periods, question marks, semicolons, hyphens, italics, parentheses, and quotation marks.

3. Capitalization: capital letters are used in writing for proper names, the beginning of a sentence, and keywords in a title. In addition, the pronoun "I" in English must always be capitalized (Nordquist, *The Mechanics of Writing Composition*, 2020).
4. Abbreviations: it is the short form that is used for a word or phrase (Nordquist, *The Mechanics of Writing Composition*, 2020). To add the abbreviation of a title you must first type the full title followed by the abbreviation. That way, the reader will have a better understanding of the text while reading (Villon, 2021).

Sentence and paragraph structure

Basic sentence structure

According to Oshima and Hogue (2007), " A sentence is a group of words that contains at least one subject and one verb and expresses a complete thought" (p.11). Additionally, Nordquist (2019) said that a sentence belongs to the largest unit of grammar and it starts with the first letter capitalized and can end with a question mark, exclamation point, or a period. Therefore, the basic structure of a simple sentence is composed of a subject, a verb, and a complement that makes sense and has a complete idea.

Structure of a paragraph

Zemach and Rumisek (2003) say that " a paragraph is a group of sentences about a single topic. Together, the sentences of the paragraph explain the writer's main idea (most important idea) about the topic" (p.11). These writers clarify that a paragraph consists of three parts: the topic sentence that contains the main idea, subsidiary sentences that give more details about the main idea, and the concluding sentence that provides a final comment. Similarly, Oshima & Hogue (2007) explain that " a paragraph is a group of related sentences that develops

one main idea, which is the topic of the paragraph” (p.38). Oshima & Hogue (2007), as well as Zemach & Rumisek (2003), divide the structure of a paragraph into three main parts: a topic sentence, various supporting sentences, and a concluding sentence. However, Bailey (2003) provides another point of view about the parts of a paragraph. He states that not always the topic sentence is placed in the first sentence of the paragraph and all the paragraphs have a topic sentence which can contain definitions, details, examples, reasons, or ***restatements which change depending on the main topic.***

Writing process

To create a writing work, it is crucial that the writer follow some stages. These stages can change depending on the writer; however, the three main stages, pre-writing, drafting, revising, and editing are described below:

Pre-writing

Pre-writing is the first step to creating writing and it refers to any activity which comes before starting to write (Faraj, 2015; Seow, 2002). In this stage, students plan the topic that they want to cover, the purpose of their writing, and the target audience, as well as gather more information before writing (Dewi, 2021). According to Suprpto et al. (2022), “Pre-writing is defined as brainstorming or generating ideas that require ideas exchanging, outlining, and free writing” (p. 188). In other words, pre-writing is the stage that requires learners to organize and develop their ideas by doing different activities which help them to plan their writing and avoid students dealing with a black page (Alber-Morgan et al., 2007; Sari et al. 2020; Seow, 2002).

Furthermore, in this stage, there are some strategies that can be applied in order to gather ideas and organize them. Some of the most common are brainstorming, ideas mapping, asking questions, free-writing, making a list,

clustering, reading, visual stimuli, and story starters (Alber-Morgan et al., 2007; Sari et al. 2020; Seow, 2002; Zemach & Rumisek, 2003).

Drafting

At this stage, students start to order what they have brainstormed before. It allows students to organize their thoughts to then produce in the paragraphs they are going to write. Likewise, in the execution of this step, it is important that students know that this step of the writing process must include an introduction, thesis statement, topic sentence, supporting sentences, and conclusion. In this way, this stage of writing not only focuses on the final result but also helps learners to be aware of their mistakes since it is essential for the learning and development of their writing skills (Alber-Morgan et al., 2007; Dewi, 2021; Sari et al., 2020; Suprpto et al. 2022).

Revising and editing

Finally, in the third stage, students revise the errors made in the writing like correcting the sentence structures, the word choice, and the structure of the paragraphs with the purpose to improve their work (Dewi, 2021). In addition, Sari et al. (2020) provide some steps that can be followed in the revising stage which are: creating unity, creating coherence, identifying wordiness, choosing specific and appropriate words, and completing a peer review. Color-coding and peer-review are suitable strategies to apply during this stage due to learners are able to get feedback from other classmates and from the teacher to enhance their product (Dewi, 2022; Suprpto et al. 2022). After this step comes the editing stage which is concentrated on fixing spelling, grammar, and mechanics mistakes in peer-editing groups (Alber-Morgan et al., 2007; Dewi, 2022). Besides, in this stage of editing, the writer can follow some steps such as examining the surface characteristics of the text, the spelling, usage, grammar, punctuation, and the proper format (Sari et al. 2020).

3. Methodology

Setting and participants

The current research was developed in Loja city in the south of Ecuador, which is located in the Cuxibamba valley at a latitude of -3.99313 and a longitude of -79.20422. In this study, participants were 34 students, 11 females and 21 males between 15 and 17 years old. This target group belongs to second-year high school at a public institution during the school year 2022-2023, who, according to the Ministry of Education (2019), should have a B1.1 level of English Language proficiency by the end of baccalaureate. Besides, the research population of this work was selected by using the convenience clustered sample which consists of recruiting the most easily accessible sample (Gay et al., 2012). Finally, due to the ethical principles of privacy, the participants were given a code to preserve anonymity.

Method

In consideration of the design of this study, the present work answered a mixed action research method in which quantitative and qualitative data were gathered to respond to the research question, and accomplish the specific objective stated in this research process (Gihar, 2022). For quantitative data, the researcher applied the testing technique through a pre-test and post-test as instruments to measure the impact of simulated storytelling environments on English writing skills. Additionally, the researcher used field notes to gather information about the students' improvements in English writing skills by using the simulated storytelling environments.

Procedures

The research work was performed following the practical action research model which allows researchers to take part in the process and at the same time,

solve a problem (Gay et al., 2012). Besides, this model has been considered appropriate for this study since this process includes the following stages according to Susman (1983):

Diagnosing

The research commenced by recognizing an issue in the writing proficiency of the targeted research group. Utilizing this information, it became feasible to articulate and characterize a research problem focused on how the introduction of simulated storytelling environments impacts the enhancement of English writing skills.

Planning

After the researcher recognized the core problem of English writing skills, an intervention proposal was designed based on lessons in which the teacher will apply simulated storytelling environments to enhance the students' writing skills. The strategy was linked to the research query articulated in the study, and the research tools were developed considering both the attributes of the participants and the overall design of the research work.

Acting

During this phase, the researcher possessed a meticulously crafted intervention strategy that evolved from a thorough exploration of theoretical references. The intervention plan was executed over a span of ten weeks, with three class hours each week. The intervention proposal was designed and executed according to Gagné et. al (1916) who proposed a model that comprises some stages of instruction which are: Warm-up, Objective discussion, Instruction, modeling, guided practice, independent practice, and assessment. Besides, it was performed by teaching face-to-face classes during the school period 2022-2023. Throughout the implementation of the proposal, the researcher gathered data by

administering a pre-test at the commencement of the intervention and a post-test upon its conclusion. Furthermore, field notes were compiled to document the students' responses to simulated learning environments throughout the lessons.

Evaluating & Reflecting

This phase aimed to assess the results derived from the intervention plan by interpreting both the quantitative and qualitative data amassed during the course of the action. The overall findings were presented by formulating conclusions and recommendations, contributing to addressing the research question posted in this study.

Data Collection Sources and Instruments

The testing technique was used through a pre-test as an instrument to assess the students' level of writing skills and a post-test to know the improvement after the implementation of simulated storytelling environments (Creswell, 2012). These instruments consisted of six questions in which students had to order words, a paragraph, fill in the blanks, and write a short answer (Gay et. al, 2012). The questions were designed considering the indicators of the writing skills such as, punctuation, spelling, grammar word order, verb agreement, coherence and cohesion. Additionally, the data obtained from the pre and post-test were analyzed through the use of criterion-referenced scoring to assess the student's performance according to the grading scale established by the Ministry of Education, which goes from very satisfactory (10) to fail (0) (Gay et. al, 2012).

Data Analysis

Considering the structure of this research, descriptive statistics were employed to examine the quantitative data. Likewise, all data collected were illustrated with frequency tables and bar graphs through the use of the EXCEL program which was used to present data by using measures of central tendency. The qualitative

data was presented by the categorization and analysis according to the indicators mentioned in the variables and the interpretation of the outcomes that supported the quantitative data.

4. Results

Objective: To identify the impact of storytelling on English writing skills using simulated environments among second year high school students at a public institution in Loja city.

Table 1

Pretest scores on the performance of second year high school students writing skills

Grading scale (2/2)	P and C		S		WO		VA		CR		CS	
	F	(%)	F	(%)	F	(%)	F	(%)	F	(%)	F	(%)
Grades (0 - 0,5)	12	38	1	3	19	59	10	31	7	22	2	6
Grades (0,6 - 1)	6	19	1	3	4	13	8	25	14	44	2	6
Grades (1,1 - 1,5)	8	25	1	3	5	16	7	22	3	9	2	6
Grades (1,6 - 2)	6	19	29	91	4	13	7	22	8	25	26	81
Total of students	32	100	32	100	32	100	32	100	32	100	32	100
Mean	0,83		1,78		0,56		0,93		1,02		1,75	
Total mean of 12/12	6,87											
Total mean of 10/10	5,71											

Note. P and C = Punctuation and Capitalization, S = Spelling, WO = word order, VA = Verb Agreement, CR = Coherence, CS = Cohesion.

As shown in the above table, second year high school students obtained scores between 0-0,5; 0,6-1; 1,1-1,5 and 1,6-2 per component, such as "punctuation and capitalization", "spelling", "word order", "verb agreement", "coherence" and "cohesion".

Concerning "punctuation and capitalization", the results show that 38% of students got a score between 0 - 0,5 as they were unable to recognize the majority of words that require capitalization as proper names or the beginning of a sentence. Aside from this, the students failed in the correct use of punctuation marks, mainly at the end of each sentence, since they do not usually use periods in their writing. But, only 19% of them had a score between 1,6 – 2 which means that they had no difficulties in using punctuation and capitalization correctly. Thus, the mean of this component was 0,83 out of 2.

Regarding the "spelling" component, 91% of learners achieved a score between 1,6 – 2 since most words were properly spelled indicating the students' mastery of vocabulary presented and proficient spelling. On the other hand, 3% of the participants got a score of 0 – 0,5 which means that they were not able to form the words accurately, either due to unfamiliarity with the vocabulary or confusion about the correct spelling. Consequently, the mean score was 1,78 out of 2.

In the "word order" component, 59% of them acquire a score of 0 – 0,5. This can be attributed to students encountering challenges in identifying the structure of a sentence like the subject, the main verb, and the complement in various sentence types. Hence, the sentences lacked structure and coherence, and appeared incomplete and rambling. Conversely, only 19% of students obtained a

score between 1,6 – 2 since the majority of sentences were well-structured and had a varied structure. As a result, this component had a mean of 0,56 out of 2.

With respect to “verb agreement”, 31% of participants got a score of 0 – 0,5 which means that most of the learners struggled with determining the correct verb tense and the subject-verb agreement in terms of numbers. However, 22% of students had a score between 1,6 – 2 demonstrating their command of this component as they made almost no mistakes in selecting the appropriate verb tense in each sentence and maintaining the subject–verb agreement. Overall, the mean of this component was 0,93 out of 2.

Likewise, in the “coherence” component, 44% of students scored between 0,6 – 1 which reveals that most of them did not understand the sequence of the story events and the order between ideas and information was fuzzy. On the other hand, 25% of participants achieved a score of 1,6 – 2 since they were able to write the details of the story in a logical order. Similarly, 22% of learners obtained a score in the interval of 0 – 0,5 because they could not comprehend and organize the sense of the story making the transition ideas unclear or nonexistent. In a similar vein, 9% of them got a score of 1,1 – 1,5 as there were some minor errors in the storyline but the writer’s intention was clear. Therefore, this component had a mean of 1,02 out of 2.

Finally, the results of the “cohesion” component illustrate that 81% of participants reached a score of 1,6 – 2 which means that they could identify and use the connectors appropriately. On the contrary, 9% of them obtained a score in the range of 0 – 0,5 because they did not select suitable linking words since they were unable to comprehend their meaning and the story's message. Accordingly, the data obtained from this component indicated a mean score of 1,75 out of 2.

To sum up, students' lowest performance was observed in "word order", which refers to the correct structure of sentences depending on the complexity. On the other hand, the highest performance was evidenced in "cohesion" which stands for the varied and appropriate use of linking words. However, other components, including punctuation and capitalization, verb agreement, and coherence were also targeted to enhance during the implementation of the intervention proposal.

Posttest results

Table 2

Posttest scores on the performance of second year high school students' writing skills

Grading scale (2/2)	P and C		S		WO		VA		CR		CS	
	F	(%)	F	(%)	F	(%)	F	(%)	F	(%)	F	(%)
Grades (0 - 0,5)	2	6	0	0	12	38	0	0	0	0	0	0
Grades (0,6 – 1)	3	9	1	3	7	22	0	0	3	9	0	0
Grades (1,1 - 1,5)	7	22	3	9	4	13	6	19	9	28	1	3
Grades (1,6 – 2)	20	63	28	88	9	28	26	81	20	63	31	97
Total of students	32	100	32	100	32	100	32	100	32	100	32	100
Mean	1,39		1,84		0,88		1,78		1,59		1,96	
Total mean of 12/12	9,44											
Total mean of 10/10	7,85											

Note. P and C = Punctuation and Capitalization, S = Spelling, WO = word order, VA = Verb Agreement, CR = Coherence, CS = Cohesion.

As can be seen from Table 2, in "punctuation and capitalization", 63% of learners got a score between 1,6 – 2 because most capital letters and full stops were correctly placed, suggesting that students understood when they had to use

them in their writing piece. However, 6% of them had a score between 0 – 0,5 since they did not recognize proper names that were spelled with initial capital letters and did not punctuate sentences accurately. Thus, the mean of this component was 1,39 out of 2.

Besides, the component of “spelling” had shown that 88% of students who obtained a score of 1,6 - 2 did not struggle to order the letters and form words and they made just a few mistakes as they were familiar with the vocabulary. On the other hand, 3% of them scored between 0,6 – 1, indicating that learners had a limited range of vocabulary of basic and common words. As a result, they become confused and use the wrong spelling in their writing. Consequently, this component got a mean of 1,84 out of 2.

Moreover, the results obtained from this posttest showed that 38% of students with a score between 0 – 0,5, still had problems with the “word order” component. They were not able to arrange sentences demonstrating a lack of control over the proper order of words in basic sentence structures which were often incorrect and made the writing difficult to understand. In contrast, 13% of participants achieved a score of 1,1 – 1,5 because most sentences were well-constructed with occasional errors showing a developing understanding of word order structures. Accordingly, the data obtained from this component had a mean of 0,88 out of 2.

Regarding the “verb agreement” component, 81% of students acquired a score of 1,6 – 2 since they maintained consistent use of verb tenses in most sentences, improving overall clarity and demonstrating correct subject-verb agreement in simple sentences. However, the other 19% of participants who had a score between 1,1 – 1,5 showed some ability to maintain accuracy but made noticeable errors due to not knowing the past form of some verbs and when to apply them properly. As a result, the mean of this component was 1,78 out of 2.

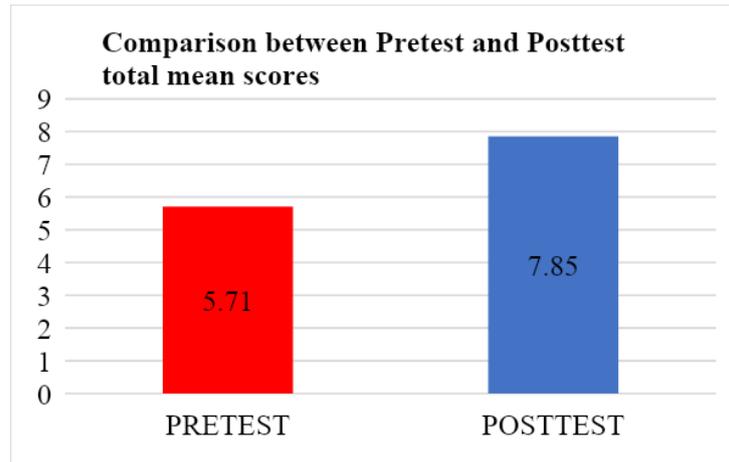
Additionally, in the “coherence” component, 63% of learners, with a score of 1,6 -2, demonstrated a great improvement in organizing the ideas logically since they were able to analyze the images and present the events of the story chronologically in their writing piece. Nevertheless, 9% of them got a score between 0,6 – 1 since they showed some attempt at making a logical progression of ideas but it was often unclear. Therefore, this component had a mean of 1,59 out of 2.

Finally, the data gathered by the researcher showed that 97% of students who got a score of 1,6 - 2 did not struggle with the component of “cohesion” because they were able to select the linking words appropriately demonstrating correctness and a strong understanding of connectors to establish relationships between ideas. But, 3% of them had a score between 1,1 – 1,5 since most of the text was connected with the appropriate use of connectors indicating a good comprehension of the text. Hence, the mean obtained from this component was 1,96 out of 2.

The results collected in Table 2 indicated that the highest students’ performance was in “cohesion” and “spelling” components which means that students were able to spell words correctly and select the appropriate linking words according to the order of events. On the other hand, the lowest performance occurred in the “word order” component which demonstrated that learners were not able to structure different sentences correctly.

Figure 1

Comparison of pre-test and post-test scores on students’ writing skills



The Figure presented above indicates the means scores collected during the application of pretest and posttests. These instruments showed the impact of using simulated storytelling environments on the improvement of students' writing skills such as capitalization, punctuation, spelling, word order, verb agreement, coherence, and cohesion.

As can be seen in Figure 1, the overall mean of the pretest was 5,71 out of 10 while the posttest was 7,85 out of 10. Therefore, the results obtained from these instruments corroborate that there was an improvement in English writing skills after the implementation of simulated storytelling environments among second year high school students.

5. Discussion

The inquiry in this study aimed to ascertain the influence of simulated environments on English writing skills through the use of storytelling. In addressing this query, a crucial and pertinent discovery emerged: the analysis of the data means indicated that the post-test means scores surpassed the pretest mean scores. In the pretest, students got a mean score of 5,63/10, whereas in the posttest they obtained a mean score of 7,88/10 which means that the participants improved their English writing skills by using simulated storytelling environments. Similarly, Zakaria & Aziz (2019) points out that the implementation of the

storytelling tool through technology improves the students' narrative skills in English as a second language. Earlier research studies have also shown comparable outcomes, indicating a significant enhancement in students' writing skills following the implementation of storytelling through technology as an innovative tool. Simulated storytelling environments allow students to apply language in context and practice it effectively (Girmen et al., 2019; Lim & Md Noor, 2019; Rizal, 2021). Therefore, the results of this study are consistent with those of other studies since it clearly demonstrates that simulated storytelling environments have a positive impact on EFL writing skills.

6. Conclusions

The implementation of storytelling through simulated environments as an innovative tool in the teaching-learning process had a positive impact since it improved the students' English writing skills. Furthermore, students showed a considerable improvement on some components of writing such as punctuation, capitalization, verb agreement, and coherence. Nevertheless, learners still struggle with the word order since they are not able to arrange the parts of a sentence like subject, verb, object and complement. Additionally, there was not a significant difference in the spelling and cohesion components.

Simulated environments contributed to increasing students' interest, and motivation in the writing process. The interaction and immersive nature of these environments capture students' interest and encourage active participation during writing activities. Additionally, the simulated environment allowed the researcher to create more personalized learning experiences. This involved the development of collaborative writing projects, mitigating students' writing anxiety, and empowering the teacher to utilize and customize these tools to address diverse learning needs.

Simulated learning environments are highly recommended for engaging and motivating students, as they encourage heightened creativity through the exploration of unique scenarios, characters, and settings. This immersive approach cultivates imaginative thinking, compelling learners to delve into creative expressions of their ideas and elevate their narrative writing skills. Additionally, these environments demonstrate adaptability by tailoring challenges to individual skill levels, fostering continuous improvement in writing exercises. The dynamic nature of simulated learning not only enhances the overall learning experience but also contributes significantly to the development of students' creative and proficient writing abilities.

7. Authors' contribution

KG: Theoretical Framework, Results, and Intervention proposal

MC: Introduction, Methodology, and Instruments design

OL: Discussion and conclusions

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