

Micro-learning in Fostering Pre-service Language Teachers' English Writing skills

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Table of contents

Acknowledgments.....	2
Table of contents.....	3
List of tables	6
List of figures	7
Abstract	8
Chapter 1 Introduction	10
1.1 Chapter overview	10
1.2 Micro-learning and technology in enhancing language learning and writing skills	10
1.3 Description of the context	12
1.4 Research Questions	13
1.4.1 Main Research Question	13
1.4.2 Specific questions.....	14
1.5 Statement of the Problem and significance of the study	14
1.6 Thesis outline	15
Chapter 2 Literature Review.....	16
2.1 Chapter overview	16
2.2 Micro-learning in other disciplines	16
2.3 Micro-learning in secondary schools and other language skills.....	18
2.4 Micro-learning in higher education and language skills	20
2.5 Concluding remarks	20
Chapter 3 Theoretical Framework	22
3.1 Chapter overview	22
3.2 Mobile-assisted language learning and Micro-learning	22
3.2.1 Micro-learning.....	23
3.2.2 Telegram.....	26
3.3 Teaching Methodologies	27
3.3.1 Blended learning.....	27
3.3.2 Project-based learning	28
3.4 EFL writing skills.....	29

3.5	Assessment of Writing	32
3.5.1	Writing tasks.....	32
3.5.2	Genre	33
3.5.3	Newspaper articles	34
3.5.4	Writing assessment tools.....	35
3.6	Concluding remarks	37
Chapter 4	Research Methodology.....	38
4.1	Chapter overview	38
4.2	Research site and participants	38
4.2.1	Research site.....	38
4.2.2	Participants	39
4.3	Research approach and research design	40
4.4	Research procedures and data collection methods	41
4.4.1	Diagnostic stage	41
4.4.2	Intervention stage	44
4.4.3	Evaluation.....	48
4.5	Data analysis.....	50
4.5.1	Analysis of quantitative data	50
4.5.2	Analysis of qualitative data	51
4.6	Validity and reliability.....	51
4.7	Ethical considerations.....	52
4.8	Concluding remarks	52
Chapter 5	Findings	53
5.1	Chapter overview	53
5.2	Pre-service EFL language teachers' knowledge of micro-learning and writing needs and strengths	53
5.2.1	Pre-service EFL language teachers' knowledge of micro-learning	53
5.2.2	Pre-service EFL language teachers' writing needs and strengths	55
5.2.3	Pre-service EFL language teachers' writing strategies and resources	58
5.3	Micro-learning interventions in the improvement of students' writing quality	60
5.3.1	Students' overall writing performance	60
5.3.2	Results of the analytical writing aspects	61
5.4	Challenges and benefits of micro-learning in enhancing writing.....	65

5.4.1 Benefits of micro-learning.....	65
5.4.2 Challenges of micro-learning	79
5.5 Concluding remarks	83
Chapter 6 Discussion	84
6.1 Chapter overview	84
6.2 Pre-service EFL language teachers' knowledge of micro-learning and writing performance before and after the intervention	84
6.2.1 Pre-service EFL teachers' knowledge of micro-learning.....	84
6.2.2 Pre-service EFL teachers' writing performance before and after the intervention	84
6.3 Benefits and Challenges of implementing micro-learning in enhancing writing.....	85
6.3.1 Benefits of implementing micro-learning in enhancing writing	85
6.3.2 Challenges of implementing micro-learning in enhancing writing.....	87
6.4 Concluding remarks	88
Chapter 7 Conclusion	90
7.1 Chapter overview	90
7.2 Main findings and conclusion	90
7.2.1 Positive impact of Micro-Learning on Writing Skills.....	91
7.2.2 Negative impact of Micro-Learning on Writing Skills	92
7.3 Implications for writing teaching and learning	93
7.4 Limitations and further research.....	94
References	96
Appendices	103
Appendix 1. Informed Consent	103
Appendix 2. Researcher's Journal (Sample)	105
Appendix 3. Interview with the teacher	107
Appendix 4. Initial perception questionnaire for students	109
Appendix 5. Pre-test writing task	112
Appendix 6. Analytic Scoring Rubric	113
Appendix 7. PBL lesson plan	116
Appendix 8. A sample of micro-learning activities	119

List of tables

Table 3.1 Features of writing rubrics.....	36
Table 4.1 Summary of Data Collection and Analysis Methods	41
Table 4.2 Schedule of Activities for the Intervention.....	45
Table 5.1 Pre-service EFL language teachers' knowledge of micro-learning: familiarity and uses of resources	54
Table 5.2 Students' perceptions of needs and strengths	55
Table 5.3 Results of students' writing performance from the pre-writing test	57
Table 5.4 Pre-service EFL Teachers' Writing Resources and Strategies	58
Table 5.5 Students' overall writing performance: Descriptive statistics	60
Table 5.6 Students' overall writing performance: Inferential statistics.....	60
Table 5.7 Descriptive Statistics for Analytical Writing Aspects in Pre-Test and Post-Test	61
Table 5.8 samples of students' writing before and after the intervention	63
Table 5.9 Impact of Telegram content in Writing	66
Table 5.10 Samples of the lesson plans and activities.....	70
Table 5.11 Samples of the personalized feedback to students.....	73
Table 5.12 Impact of Telegram and micro-learning	77
Table 5.13 Challenges of Micro-learning	80

List of figures

Figure 5.1 Samples of a Fanzine project - content development	68
Figure 5.2 Samples of Telegram activities	76

Abstract

In the 21st century, individuals are frequently exposed to social media and streaming platforms that provide immediate access to digital content and information. Within this media landscape, micro-learning has emerged as a promising methodology to language teaching and learning, offering students learning opportunities through short, concise videos, podcasts, or interactive activities. However, there is a lack of research in this area in our educational context that sheds light on its use and effectiveness. Moreover, the persistent issue of low writing proficiency among pre-service language students from the B.A in Foreign Languages at Universidad del Valle, Cali, Colombia, represents a need to improve their academic writing. In order to fill these gaps and needs, the present study explored the effectiveness of micro-learning in improving a group of pre-service teachers' English writing skills.

The study employed a mixed methods approach and three phases. The diagnostic phase identified students' writing strengths and weaknesses through a pre-writing test, surveys and classroom observations. The intervention phase utilized micro-learning-based activities and writing tasks designed to address key aspects of writing, such as organization, cohesion, clarity, grammar, and vocabulary. These activities were delivered through Telegram, a platform that facilitated the distribution of dynamic materials, including videos, infographics, and interactive tasks, allowing for real-time feedback and flexibility in learning. The evaluation phase included a post-writing test and surveys. Quantitative data in the form of students' writing performance was assessed through an analytic scoring rubric and was analyzed through descriptive and inferential statistics. Qualitative data about students' perceptions of the effectiveness of micro-learning and their writing improvement was analyzed through content analysis.

The findings revealed significant progress in students' writing proficiency. Key improvements were observed in the organization and cohesion of texts, as well as in the overall clarity and readability of their writing. Students also reported increased motivation, engagement, and reduced anxiety when tackling writing tasks, highlighting the accessibility and effectiveness of the micro-learning approach. This study concludes that micro-learning offers a practical and innovative solution to writing deficiencies in EFL contexts. Beyond addressing specific writing challenges, it provides insights into the design of personalized educational materials and emphasizes the role of immediate feedback in enhancing learning outcomes. The research contributes to the growing body of literature on digital pedagogies, demonstrating the applicability of micro-learning in language education. These findings underscore the importance of integrating modern, flexible methodologies into teacher education programs to better align with the demands of contemporary learners.

Keywords: EFL pre-service learners, Micro-learning, Mixed methods, Writing skills

Chapter 1 Introduction

1.1 Chapter overview

This chapter introduces the relevance of micro-learning and technology in enhancing EFL learners' writing skills in the context of 21st-century education. It also presents the context of the study at Universidad del Valle, where pre-service language teachers face challenges in writing proficiency, and highlights the potential of micro-learning to address these challenges. The chapter concludes by outlining the research questions and the significance of the study in contributing to language education in Colombia.

1.2 Micro-learning and technology in enhancing language learning and writing skills

The 21st century has brought about a culture that appreciates immediacy, where technology plays an essential role in daily life (Turkle, 2011). The effects of this digitized lifestyle are highlighted by the fact that people tend to lose their focus after only eight seconds nowadays (McSpadden, 2015). This can be checked by the current consumption of content through social networks. According to Gonzalez (2022), the stimuli generated by short videos that we can find through Tiktok, Instagram or Facebook can generate a neural tissue that tends to hyperstimulation, immediacy and loss of attentional focus. Consequently, innovative ways of enhancing language learning outcomes have emerged, such as micro-learning. Micro-learning is a technology-driven tool to teaching and learning that delivers short and focused learning experiences (Mohammed et al., 2018). This approach breaks down complex topics into smaller, and more comprehensible pieces. Micro-learning activities include videos, podcasts, interactive activities, and bite-sized modules, making use of technology to facilitate learning (Hosseini et al., 2020).

These bite-sized learning components are designed to be highly focused and deliver specific learning objectives, allowing students to absorb key concepts efficiently. An example of how micro-learning and short videos can assist students in learning a language or improving writing skills is through concise, focused language tutorials. For instance, a language learning platform can offer short instructional videos on specific grammar rules, vocabulary usage, or writing techniques. Further, interactive activities can be included in these micro-learning modules to reinforce learning and provide immediate feedback to students through mobile technology, helping learners engage with the topics and learning.

Micro-learning, enhanced by technology integration, emerges as a key tool in addressing the dynamic educational terrain, with a particular emphasis on higher education and language instruction (Nikkhoo et al., 2023; Marinskaya & Marinskaya, 2020). Currently, Colombia has experienced a remarkable increase in connectivity through mobile devices, with 76% of the population having access to mobile internet (MinTIC, 2023). This has profoundly transformed the way we approach the learning process.

The constant connectivity of mobile devices, such as smartphones, tablets, and laptops, has opened up a vast world of educational opportunities. Now, we can consume a wide variety of efficient and affordably online content, including videos, images, texts, podcasts, etc. This availability of online educational resources has redefined the way we acquire knowledge and skills. The presence of smartphones, tablets, and computers allows learners to seamlessly incorporate micro-learning into their daily routines, be it during brief intermissions, commutes, or moments of waiting. According to Allela (2021), micro-learning, by delivering information in small, easily digestible portions, can aid students in better assimilating information and sustaining their attention, which could translate into improved academic performance. Furthermore, it allows students to access learning content at moments and locations convenient to them, thereby enhancing flexibility in class scheduling and time management.

Regarding languages, micro-learning emerges as a dynamic approach that holds immense promise for language acquisition. With the aid of technology, learners can conveniently integrate bite-sized language lessons into their daily lives. Whether through quick vocabulary exercises during short breaks or interactive language apps during commutes, micro-learning facilitates a flexible and accessible language learning experience (Allela, 2021). More specifically about writing, micro-learning could effectively enhance students' English writing skills by presenting condensed writing lessons focused on discrete skills, enabling frequent repetition and review of fundamentals through segmented delivery, facilitating targeted writing practice through brief tasks instead of long assignments, and promoting convenient self-paced skill development accessible anytime, anywhere via mobile devices (Fauziah et al., 2023).

Previous research on micro-learning in education has shown promising results internationally, although studies specifically focused on teaching writing are limited. Internationally, research such as that of Fauziah et al. (2023) in Indonesia revealed significant improvements in the writing skills of EFL learners using micro-learning materials, with notable increases in aspects such as organization, content, grammar, and vocabulary. Nationally in Colombia, studies such as that of Robles et al. (2023) have explored micro-learning frameworks to improve reading skills in English and Spanish through mobile applications, although without focusing directly on writing. However, at the local level, specifically in Cali or Valle del Cauca, there is a significant gap in the literature, which underlines the relevance of researching the application of micro-learning to improve writing skills in EFL, thus contributing to academic and practical knowledge in this emerging field of digital pedagogy.

In our local educational context, the implementation of micro-learning could be useful for enhancing the writing skills of pre-service language teachers because EFL writing is an evolving research area in Colombia that requires the implementation of innovative teaching methodologies (Guapacha & Chaves, 2023). Also, effective writing is a critical skill for language teachers, as they must provide clear instructions,

create instructional materials, and assess student work. Micro-learning, designed to be practical and immediately applicable, allows pre-service teachers to develop and hone their writing skills in a context directly related to their future roles (Kohnke & Fount, 2023). This points to the imperative need to introduce new methodologies that enable students to advance in their learning. The incorporation of technology emerges as a fundamental tool in this context, facilitating the use of new methodologies. Incorporating micro-learning exposes language pre-service teachers to modern and innovative teaching practices. By experiencing the benefits of micro-learning in their own professional development, they are more likely to appreciate and adopt similar methodologies in their future classrooms, contributing to the evolution of teaching practices in line with contemporary educational trends (Kohnke & Fount, 2023).

Personal reasons for doing this research include academic and professional grounds. As a language teacher and student, I consider that it is important to explore diverse methodologies and tools to fulfill the demands of the modern learner, who seeks personalized and interactive learning experiences. Through this research, I expect to contribute to developing more useful language learning programs that encourage learner autonomy and meet the needs of the modern learner.

1.3 Description of the context

The present study was conducted in the Bachelor 's Degree in Foreign Languages at the Universidad del Valle. The main objective of this academic program is to train competent professionals to respond to the linguistic and communicative needs that exist both in the region and in the country (Universidad del Valle, 2018). The School of Language Sciences envisions consolidating itself as a reference in language research, with social and cultural projection, through educational programs of excellence supported by interdisciplinary teaching and research. According to the program's curriculum, the mission of the institution aims to deepen the study of the use of language in different sociocultural contexts.

The program applies educational strategies based on active pedagogical approaches, such as teaching by tasks, project pedagogy, workshops and formative research (Universidad del Valle, 2018). These practices put the students at the center, promoting their responsibility, self-regulation and autonomy. Following the program's curriculum, learning takes place through practice, research, consultation, experimentation, manipulation, classification, socialization and knowledge sharing. Thus, the performance of communicative tasks, projects and research contributes to the development of general competencies, and linguistic skills (reading, writing, listening, speaking).

The language courses in the program adopt teaching approaches that make explicit the promotion and use of cognitive and metacognitive strategies during the writing of various types of texts, such as critical reviews, essays, projects, reports and research articles (Universidad del Valle, 2018). These practices, being

linked to disciplinary knowledge, enable the application and recontextualization of the student's previous knowledge, broadening and deepening in specific contexts and situations.

However, despite the fact that the communicative tasks and projects offer opportunities to develop written expression, students often find it difficult to maintain concentration and commitment during prolonged sessions. As reported by the Coordinator of the English sub-department, fourth and ninth semester students show low results in their writing skills, as can be seen in the results of the ECCE exam for fourth semester students and in the English language proficiency test for ninth semester students.

In this context, micro-learning offers an innovative alternative that complements these active methodologies. Presenting writing lessons in small, focused chunks allows for more frequent, accessible, and less intimidating practice for students. In addition, adapting content to a shorter format improves students' ability to absorb and retain specific writing concepts, such as grammar, cohesion, and coherence. Micro-learning seems to respond directly to the problem of students' low writing performance.

Therefore, this study was carried out with students in the Integrated Skills II course whose purpose is to continue strengthening the communicative competencies in English initiated in the previous level, emphasizing the comprehension and multimodal production of narrative texts on familiar topics or topics of personal interest that correspond to level B1.1. Although oral expression is fundamental, written practice is also emphasized through different tasks such as writing narratives, summaries of book or movie plots, news reports, descriptions of places, instructions and future plans, among others. The methodology focuses on task-based learning, where students actively participate in collaborative work that integrates the four skills (writing, reading, listening and speaking).

While the approaches used in the course contribute to the development of writing skills, the activities may require lengthy class sessions that can compromise students' engagement and concentration. Micro-learning can complement these methods by providing instruction and practice in small doses. By focusing on specific skills for short periods of time, micro-learning can optimize teaching time and increase student interest and participation. Given the growing evidence of the benefits of this strategy, there is a strong rationale for developing and evaluating a micro-learning solution to improve the written communicative competence of future teachers in this academic program.

1.4 Research Questions

1.4.1 Main Research Question

- How does the implementation of micro-learning influence the improvement of English writing skills in pre-service language teachers?

1.4.2 Specific questions

- What are pre-service EFL language teachers' knowledge of micro-learning and what are their needs and strengths regarding writing skills?
- To what extent do the duration and frequency of micro-learning interventions contribute to the improvement of pre-service language teachers' writing skill, as reflected in the overall and analytical scores?
- What are the challenges and benefits of implementing micro-learning in enhancing writing, as perceived by the students?

1.5 Statement of the Problem and significance of the study

Previous research has examined the use of micro-learning in some educational contexts, but there is little research on its application to the development of writing skills among pre-service language teachers (Taylor & Hung, 2022). Specifically, no study has evaluated the effectiveness of micro-learning for improving English writing proficiency in students in the bachelor's degree in foreign Languages at Universidad del Valle. This gap represents an opportunity to improve the teaching of writing in this specific context. At the national level evaluating the impacts of a micro-learning intervention on writing outcomes would provide valuable information for language curriculum developers, teachers, and policy makers seeking to optimize the development of higher education learners.

As a student in this same program, I have observed some lack of interest on the part of my classmates when the course content is too long or does not adequately take advantage of the technology. Micro-learning offers shorter, more targeted content that can increase interest (Lee, 2023). Therefore, this study examines whether micro-writing lessons can effectively improve learning outcomes. Another reason why it is so important to focus on improving writing is because exams in the fourth and ninth semesters in this program have shown that writing is the most difficult skill for students to master. By focusing on writing proficiency, this study addresses a clearly documented area of difficulty.

Furthermore, this study makes several important contributions that address this gap. First, it expands the limited research based on the development of writing skills in undergraduate foreign language learners (Guapacha & Chaves, 2023). Second, it provides concrete evidence on the effectiveness of micro-learning in the context of language teacher preparation (Lee, 2023, Taylor & Hung, 2022). Finally, by evaluating micro-learning in the context of a Colombian public university, it generates locally relevant findings to inform language teaching practices, curriculum design, and educational policies focused on optimizing writing instruction.

The study also has practical significance for various stakeholders. Language teachers and curriculum developers can use the results to improve writing pedagogy and integrate effective micro-learning techniques. University administrators and policy makers can apply the results to support institutional and national initiatives aimed at improving writing proficiency among foreign language learners and teacher trainees. Ultimately, the research enables decision makers to make evidence-based decisions regarding instructional approaches to achieve writing learning goals.

1.6 Thesis outline

This thesis is organized around six chapters. **Chapter 1, Introduction**, introduces the research topic, providing an overview of the significance of micro-learning in language education, with a particular focus on its application to EFL writing. It outlines the research problem, objectives, and questions, as well as the methodology employed in the study. **Chapter 2, Literature Review**, reviews the literature on micro-learning and its impact on language acquisition, specifically EFL writing, highlighting relevant theories, models, and previous empirical research in these areas. **Chapter 3, Methodology**, describes the research design and methodology, detailing the mixed-methods approach used, including the instruments for data collection (surveys, writing tasks, observations, and interviews) and the process of implementing micro-learning interventions. **Chapter 4, Results**, presents the results from the pre- and post-test writing tasks, student surveys, and classroom observations, providing an analysis of the impact of micro-learning on students' writing skills. **Chapter 5, Discussion**, discusses the findings in relation to the research questions, exploring the benefits and challenges of micro-learning in EFL writing instruction. Finally, **Chapter 6, Conclusions**, offers conclusions, summarizing the main findings, outlining the implications for teaching and learning, acknowledging the study's limitations, and suggesting directions for future research in the field.

Chapter 2 Literature Review

2.1 Chapter overview

The future of education is rapidly evolving, with innovative approaches constantly reshaping how we teach and learn. One of these innovative approaches is micro-learning, which delivers educational content in small, easily digestible units tailored to each student's needs. This approach has been gaining advocates in various fields, promising to enhance the learning experience, improve academic performance, and transform students' attitudes. However, a few studies have delved into the effectiveness of micro-learning in different educational contexts and disciplines. This chapter reviews literature about micro-learning in education and other language learning.

2.2 Micro-learning in other disciplines

According to the literature review, research that investigated the implementation of micro-learning across multiple contexts and disciplines showed that it increased academic achievement, skill development, and student attitudes. However, some restrictions have been noted, and suggestions for additional studies have been made. The interdisciplinary nature of micro-learning (ML) highlights its versatility as a pedagogical approach, showing promising results across various fields. While direct evidence in the context of writing instruction is limited, studies from other disciplines, such as medicine, mathematics, and engineering, demonstrate the effectiveness of ML in enhancing student motivation, engagement, and retention of content (e.g., Fidan, 2023; Marin, 2022; Palmon et al., 2021; Romanenko et al., 2023). The key principles of ML, such as content segmentation, adaptability, and accessibility, are transferable across educational contexts. Therefore, incorporating findings from different disciplines might strengthen the argument that ML can also be beneficial for improving writing skills. However, further research is needed to confirm its affordances.

Palmon et al. (2021) carried out a study at the University of Michigan Department of Surgery to investigate the impact of micro-learning videos on surgical education for residents and medical students, using Twitter as the primary means of distribution. These videos, designed to be less than 3 minutes in length and address specific surgical objectives, accumulated 1945 views over a two-month period, with an average viewing duration of 63%. Related tweets reached 53,800 impressions, highlighting active participation by faculty (41%), residents (25.6%), and students (12.8%). The findings underline that this combination of micro-learning and digital platforms offers an accessible, efficient and collaborative educational approach. In addition, the study suggests that this strategy contributes to democratizing surgical

education and makes recommendations for scaling up its implementation in various medical specialties through inter-institutional collaborations.

Similarly, the use of this instructional approach to enhance the effectiveness of mathematics learning and address negative attitudes among high school students towards the subject was explored in Marin's (2022) study. The study was conducted in a high school in Mexico, and data were collected through interviews, classroom observations, documentary analysis, and questionnaires. The results indicated that the implementation of bite-sized lessons improved academic performance and attitudes toward mathematics. Additionally, it recommended exploring different teaching methodologies in virtual environments to leverage digital technologies. In conclusion, Marin's study highlights the usefulness of condensed learning strategies in mathematics, emphasizing their potential to improve performance and change negative attitudes toward the subject. The study also promotes the importance of concentration and suggests the use of different pedagogical approaches in virtual environments. Moreover, it underscores the need to design educational interventions based on action research to enhance mathematics teaching.

Fidan (2023) conducted a study at a university in Turkey, evaluating the impact of the micro-learning approach in conjunction with the flipped classroom on 128 pre-service math students. The participants were divided into three groups: one group applied the flipped classroom model with segmented instructional materials, another used the flipped classroom model in the traditional way, and the third group did not implement this approach. The results revealed that there were no significant differences in academic performance between the inverted classroom groups and the group that did not apply this methodology. However, students who worked with condensed learning resources showed higher motivation and engagement. Qualitative data supported these findings, highlighting the benefits of these materials for visual learning, curiosity, and social interaction. In summary, the study suggests that incorporating modular resources into a flipped classroom context can enhance student motivation and engagement, underscoring the importance of designing student-centered learning environments and training instructors in the creation of such materials. In addition, future research in various educational contexts and with different groups of students is recommended.

Romanenko et al. (2023) addressed the growing need for innovation in teaching soft skills in the university context, highlighting the relevance of methods such as bite-sized learning for improving educational effectiveness. The study was conducted at ITMO University in Russia, using a quantitative methodological approach that included a statistical analysis of student outcomes. The sample consisted of 79 students, divided into two groups: one that received instruction through condensed instructional segments and another that participated in a traditional course. The results showed that, although there were no significant differences in academic performance between the groups, 93% of students in the modular

learning format expressed high satisfaction with the course, compared to 82% in the traditional format. The use of Telegram as a platform for sharing content and facilitating interaction was fundamental in delivering structured mini-lessons, allowing students to receive materials in diverse formats, such as digital flashcards, videos, and practical assignments, which fostered more dynamic and accessible learning. These findings suggest that integrating compact instructional units can be as effective as traditional methods, but with greater student satisfaction.

In our national/local contexts, there is limited specific literature on micro-learning. The related studies have also been conducted in areas different from language instruction.

For instance, Monroy (2021) addressed ML as a means to teach traffic rules to cyclists in Bogotá, with the ultimate goal of enhancing road safety. Monroy (2021), by employing a literature review and qualitative case study approach, examined the effectiveness of this instructional strategy in this specific context. The findings highlighted its positive impact in facilitating the learning of traffic rules and reducing accidents among cyclists. The study also identified successful strategies, such as gamification and mobile applications, that contributed to its effectiveness. However, to further explore the potential of compact learning methodologies in foreign language teaching within specific contexts, the study recommended the need for longitudinal studies and the exploration of strategic combinations of instructional approaches. This research fills a gap in the literature and contributes to the understanding of how this method can be utilized to improve safety and learning outcomes in the domain of traffic rules for cyclists in Bogotá.

While the first study focused on the use of micro-learning to enhance road safety, Reyes Poveda's research (2021) explored its potential to improve digital teaching competencies among Colombian teachers. This approach received positive ratings from participating educators, indicating its usefulness and effectiveness in strengthening their digital skills.

2.3 Micro-learning in secondary schools and other language skills

In the context of English language teaching with secondary school learners, Mohammed et al., (2018) conducted a quantitative study using questionnaires and tests to collect data on the improvement of students' learning abilities. The study involved two groups of seventh-grade students with similar academic levels, with one group receiving traditional instruction and the other experiencing micro-learning. In contrast to the traditional approach, micro-learning was found to be more effective in enhancing students' learning abilities. The authors recommend that educators integrate micro-learning into their teaching practices to enhance student motivation and knowledge retention.

Regarding the benefits of micro-learning to improve self-regulation skills among EFL learners, the study by Hosseini et al., (2020) compared a traditional instruction group with a group immersed in micro-

learning. The researchers sought to examine the impact of these approaches on Iranian students' self-regulation and interactions. The findings uncovered a marked improvement in self-regulation within the micro-learning group, as evidenced by significantly higher levels of self-regulation compared to the control group. This innovative approach also fostered meaningful interactions between students and instructors, offering better opportunities for engagement and collaboration. Considering limitations such as a small sample size and limited technological accessibility, further exploration is needed to generalize these findings and explore the applicability of ML in different educational contexts and different language skills.

The study conducted by Drakidou (2018) explored the effectiveness of a gamified ML course for teaching English to adult and young refugees in Italy, with a particular focus on the millennial generation. The course design was based on ML theory and took into consideration students' time constraints, their desire for social interaction, and their need for support. Participants were university students who voluntarily enrolled in the course. Data was collected through surveys and interviews before and after the course to assess students' perceptions of the course's utility and ease of use. The results indicated that the course was effective, and students found it both useful and enjoyable. It is recommended that micro-learning courses be carefully designed and supervised by trained instructors, with frequent assessments to make necessary adjustments. Collecting pre- and post-implementation data is also suggested to enhance future courses.

In Colombia, Álvarez's (2023) study investigated the impact of asynchronous micro-learning through a virtual communication platform on the academic performance of EFL sixth-grade students in a private school located in Bucaramanga. The study incorporated a diverse array of research tools, including interviews, direct observations, field journals, and surveys. Employing an experimental methodology with two distinct groups, one serving as the control group and the other as the experimental group, the study yielded compelling results. It was found that students who received information and instruction through Discord exhibited statistically significant improvements in their academic performance compared to those who received similar information via email. The research underscores the potential of micro-learning, delivered through virtual platforms, as an effective strategy for enhancing the academic performance of sixth-grade students in the realm of English language learning. The study acknowledged limitations, including external factors influencing the research process, a small sample size, and the absence of student perception evaluation during breaks. Recommendations included considering a mixed-method approach, exploring students' perceptions, and investigating alternative virtual platforms for English reinforcement.

Similarly, Robles et al. (2023) investigated the design of a micro-learning framework and mobile application using design-based research (DBR) in e-learning environments. The objective was to improve reading skills in English and Spanish languages. The research methodology employed iterative cycles of design, implementation, and evaluation within a DBR framework. Usability testing and data collection

instruments, such as the iPAC Rubric, aphorisms checklist, pre and post-tests, focus groups, and usability tests, were utilized. The results showed positive outcomes resulting from the implementation of the micro-learning framework and mobile application, which contributed to the improvement of reading skills and student motivation. The study recommended future research to further develop and test the framework and application in different contexts and with larger sample sizes. Additionally, the exploration of other reading strategies and technologies within the framework was suggested to enhance its effectiveness.

2.4 Micro-learning in higher education and language skills

Gohar (2023) focused on the importance of vocabulary learning in the context of English for Specific Purposes (ESP) and its increasing relevance in education, especially in Egypt. The study was conducted at the Faculty of Fine Arts, Mansoura University, using a quasi-experimental methodological approach with a sample of 60 second-year students. The participants were divided into an experimental group using a micro-learning program and a control group receiving traditional instruction. Findings revealed that the experimental group showed significant improvement in vocabulary acquisition, with a notable increase in word retention and a reduction in cognitive load, evidenced by 47% of students prioritizing vocabulary as an essential subskill. The implications of the study suggest that micro-learning may be an effective strategy for improving vocabulary learning in academic contexts, and it is recommended that future research explore its application in different disciplines and educational levels.

Focusing on collaborative learning, Lin et al. (2023) reported on the growing need to integrate collaborative learning approaches in EFL, especially in higher education. This study was conducted at a technological university in Taiwan, using a qualitative methodological approach with a micro-learning design that incorporated collaborative technologies and project-based learning in a 12-hour intensive course. The sample consisted of 32 participants, mostly sophomores, who voluntarily engaged in the course. The groups were organized to foster collaboration through interactive platforms, allowing students to work on team projects. The findings revealed a high level of satisfaction among participants with respect to the proposed instructional design. The findings suggest that the integration of micro-learning and collaborative technologies can significantly improve collaborative competencies in language learning, recommending future research that expands the sample and explores different educational contexts.

Regarding writing, very few studies were identified in this area. However, it was found that ML fosters EFL students' writing. Fauziah et al. (2023) discussed the importance of improving writing skills in university students through bite-sized instruction. The study was conducted at Universitas Muhammadiyah Sumatera Barat and Universitas Negeri Padang in Indonesia using an experimental approach with a sample of 64 students. The participants were divided into two groups: an experimental

group that received instruction through segmented learning activities and a control group that followed traditional teaching methods. The content delivered included various forms of presentation, such as video segments, graphical data analysis, and participation in short virtual classes through group discussions, which allowed students to interact with the material effectively. Findings revealed that the experimental group showed superior performance in several aspects of writing, with an organization frequency of 70% compared to 56.33% for the control group, as well as significant improvements in content, grammar, mechanics, and vocabulary. These results suggest that this method can be an effective strategy for improving English writing skills. The implications of the study highlight the need to integrate innovative methods into writing instruction, and it is recommended that future research explore its application in different educational contexts and with diverse student populations.

2.5 Concluding remarks

The reviewed studies showed that this instructional approach can effectively enhance learning outcomes in various domains. The findings indicate improved academic performance, skill acquisition, and positive attitudes among learners. However, limitations such as small sample sizes, short intervention periods, and contextual restrictions have been identified, suggesting the need for further research. Future investigations should explore longitudinal studies, strategic combinations, different training models, and the impact of segmented learning strategies on specific contexts and disciplines. Additionally, methodological enhancements, such as mixed-method approaches and the exploration of students' perceptions, could provide a more comprehensive understanding of the potential benefits of modular instruction.

Finally, to date, no specific studies related to this instructional approach have been found at the local level, such as in the city of Cali or the department of Valle del Cauca. This gap in the local literature highlights the importance of conducting research focused on bite-sized learning strategies in this region to enhance EFL students' learning and teachers' practices. By addressing this topic, it will be possible to enrich and expand the existing knowledge at the local level, providing valuable information on the applications, benefits, and challenges of this methodology for EFL learners' writing skills in our context. This research will not only contribute to academic literature but also to institutions interested in implementing effective learning strategies based on condensed instruction.

Chapter 3 Theoretical Framework

3.1 Chapter overview

The previous chapter introduced this study about the affordances and limitations of micro-learning integrated to technology and other pedagogical methodologies across various disciplines, geographical contexts and educational settings. The present chapter discusses the concepts of mobile-assisted integrated learning (MALL), micro-learning and writing skills and reviews previous research about each construct and their integration in higher education.

3.2 Mobile-assisted language learning and Micro-learning

Education practitioners and students have witnessed a rapid technological evolution in recent decades, moving from traditional media such as radio, newspapers and television to more modern electronic devices such as computers and cell phones. These advances have transformed the way we communicate, access communication and the places where we can learn.

In the field of language teaching, this technological evolution has required the emergence of methodologies that keep pace with contemporary society, such as Mobile Assisted Language Learning (MALL). George Chinnery originally introduced the term MALL, and since then, the effective use of mobile devices for language learning has seen a significant increase (Amalia, 2020). Although the first article using mobiles for teaching a foreign language was published in 1994, MALL did not become popular until well into the 2000s. (Burston & Giannakou, 2022). MALL is part of the evolution of technology within foreign language teaching, as MALL is considered a component of both mobile learning and computer-assisted language learning (CALL), providing students with novel approaches to learning. This emphasizes continuous or spontaneous access and interaction across diverse contexts (Abdu, 2018; Amalia, 2020).

MALL takes advantage of the unique capabilities of mobile devices, such as portability, social interactivity, context sensitivity, connectivity, and individualization, to support language learning (Ahmed et al., 2022). It allows learners to practice the language anytime, anywhere, extend the learning environment beyond the classroom, and maintain constant contact with teachers (Harwati Hashim et al., 2017), all this with the help of smart devices such as phones, tablets, and laptops (Burston, 2014). However, the aforementioned devices are not the only options for MALL implementation. With technological development, it is likely that other types of devices will be incorporated into this methodology in the future (Cholis et al., 2021).

There is currently little research on the use of MALL for writing, as the research conducted generally focuses on vocabulary improvement, reading, and speaking (Burston & Arispe, 2022). A comprehensive

meta-analysis study on learning outcomes with MALL found positive effects in all language skill areas, including writing (Burston & Giannakou, 2022). Regarding findings on the benefits of MALL on writing in virtual environments, Malekzadeh & Najmi (2015) found that compared to more traditional methods such as paper and pencil, students using MALL were found to score significantly better on writing tests.

MALL leverages mobile devices to transform the way we learn languages, enabling personalized and collaborative learning. Although initially focused on receptive skills such as vocabulary and grammar, it has recently seen increased research and use in productive areas such as writing. The future of MALL looks bright as mobile technology continues to evolve and bring new possibilities for language learning.

MALL was used in the present study because it offers an innovative and accessible solution to language learning in the current context. Since mobile devices allow learners to access educational materials anytime, anywhere, this methodology is particularly well suited to promote the development of productive skills such as writing, which often require constant practice and immediate feedback. In addition, MALL's focus on personalization and interactivity facilitates learning that is more tailored to individual needs, improving results compared to traditional methods.

3.2.1 Micro-learning

The term *micro-learning* is not as novel as it might seem at first glance. Although Theo Hug coined it in 2005, he himself acknowledges that micro-learning practices have their roots in the past (Corbeil et al., 2021). The reason why micro-learning has become relevant today is because never before have we had access to so much information so immediately and everywhere. With a simple click on the Internet, we can access the information we need at any time. This phenomenon has transformed how and when we can acquire knowledge.

Micro-learning refers to the idea of learning in small chunks of content (Dolasinski & Reynolds, 2020; Park & Kim, 2018). This approach can be used in company with other learning methodologies or as a stand-alone strategy. However, according to Taylor and Hung (2022), the term is still in its early stages of adoption, making it easy to confuse. Despite certain nuances, there is consensus that its essence involves segmenting educational content into reduced and modularized portions, which allow targeting very concrete and delimited learning needs.

Furthermore, the concept of micro-learning is closely related to the notion of microcontent, which comprises small fragments of digital information in a constant state of flow and circulation. Typically, micro-learning involves consuming specific and limited dimensions of content quickly, often constrained by software or device limitations such as screen size, bandwidth, navigation, and user attention (Salinas & Marin, 2014). For instance, an English language learner could watch a 1-minute video on their mobile phone

demonstrating proper comma usage while commuting. By absorbing these short lessons over time, the learner can incrementally improve their English writing abilities without needing extensive class time dedicated to grammar rules.

According to Corbeil et al. (2021), the excitement around the idea of micro-learning has led to vague definitions and diverse approaches. Although many people claim to use micro-learning, their practices vary. The lack of a clear definition has generated a lot of publicity but has not resulted in a consensus on best practices or guidelines to follow. However, the authors themselves offer seven tips for designing and optimizing micro-learning events for mobile learning: (1) focus on a learning objective, (2) simplify text and design, (3) use visual elements, (4) encourage interactivity, (5) limit duration to two to six minutes, (6) incorporate social aspects through networks and forums, and (7) ensure adaptability to mobile devices with a clear and simple design.

Micro-learning has become a widespread practice in the information society, where individuals engage in activities like reading and writing emails, mobile texts, blogs, wikis, online searches, and podcasts. It encompasses various concepts and practices, ranging from addressing specific topics in continuing education, such as healthcare, to incorporating communication technologies in teaching and learning processes.

Additionally, Hug (2005) proposes several dimensions for describing and analyzing micro-learning. These dimensions include:

- **Time**, emphasizing relatively short effort and measurable time consumption.
- **Content**, involving small or very small units and narrow topics.
- **Curriculum**, encompassing parts of curricular settings, modules, and elements of informal learning.
- **Form**, consisting of fragments, facets, episodes, or "knowledge nuggets";
- **Process**, encompassing separate or concomitant activities, iterative methods, attention management, and awareness.
- **Mediality**, considering face-to-face or mediated interactions, information objects or learning objects, and cultural capital.
- **Learning type**, involving various learning approaches and orientations.

The effectiveness of micro-learning lies in its ability to provide content that aids in learning or supporting performance in a short length of time, meeting the specific needs of the learner (Tongerson & Iannone, 2019). It emphasizes that any piece of learning content that is just five minutes long but not useful to the learners would be considered a waste of time. Therefore, the value of micro-learning is not solely determined by its duration but by its relevance and utility to the learners. Micro-learning is commonly

delivered in five formats: text-based resources, e-learning modules, videos, infographics, and podcasts. These formats offer diverse ways to present and engage with the condensed learning content, catering to different learning preferences and contexts (Tongerson & Iannone, 2019).

About the methods of integrating this instructional approach into the classroom, short videos are among the most popular, as previously mentioned. However, a very important aspect of its implementation with young-adult learners is the use of social networks such as Facebook, Instagram, or Telegram (Shatte & Teague, 2020). For instance, Aldosemani (2019) analyzed the use of this strategy and the Telegram application as a teaching tool. The study aimed to explore students' perceptions of bite-sized learning and its effectiveness in a higher education institution. Students had positive perceptions about the use of Telegram for this purpose. Ninety-seven percent of participants agreed that Telegram is a useful application for delivering condensed lessons. In addition, students expressed that they liked the app because it facilitated access to course-related information at different times of the day, allowed for quick and efficient content delivery, saved time and effort, protected user privacy, and provided a hashtag feature to locate information easily and quickly. They also appreciated the group feature, as it allowed them to have discussions with the instructor and their peers, and exchange ideas.

The present study will encompass a comprehensive understanding of ML by considering the definition put forth by Tongerson and Iannone (2019), which emphasizes the importance of content usefulness and learner needs within a short time frame. Additionally, the present research will incorporate the dimensions proposed by Hug (2005), which provide a holistic framework for describing, analyzing, and generating versions of micro-learning. To complement the research, the advice given by Corbeil et al. (2021), who emphasize the importance of personalizing learning and adapting content to the individual needs of students, will also be taken into account. In addition, the term *micro-learning* will be considered as part of the research, since other communicative teaching methodologies (e.g., tasks) will be used to complement the analysis of the effectiveness of micro-learning.

The planned integration of micro-learning and MALL will take place both in and out of the classroom context. These strategies will not only enrich the learning experience inside the classroom but also extend the knowledge acquisition process beyond the physical confines of the educational environment (Luo, 2022). By combining these modalities, it is intended to leverage the strengths of both, thus allowing for more dynamic, personalized and adaptive teaching. In this way, it will be possible to obtain a more complete and detailed view of how micro-learning relates to other teaching strategies and how it can be used effectively in different educational contexts.

3.2.2 Telegram

Interactive, communicative and collaborative platforms such as e-mail, instant messaging, forums, social networks and e-learning environments are now being used to merge virtual and real environments (Ghobadi & Taki, 2018). Telegram is a cloud-based application that allows users to exchange videos, images, audio or any file stored on a server without taking up space on their mobile device (Nair & Wider, 2021). Telegram offers unique features such as the ability to add users without the need for a phone number and keep the phone number private to others, which enhances privacy protection (Aldosemani, 2019). Also, users can share a wide variety of file types with no size limit, and the account can be accessed from multiple devices and platforms, including Android, iOS, Windows OS, etc.

Recent articles have demonstrated the effectiveness of using Telegram as a support for English language teaching (Abu-Ayfah, 2020, Nair & Wider, 2021). However, some teachers and professors oppose the use of this type of teaching strategy because they are not aware of the benefits, such as the fact that it can be used to accompany face-to-face classes through interactive activities such as quizzes, open-ended questions and sharing of materials. Telegram allows the transfer of large files in formats such as jpg, audio, video, pdf, Excel, Word and PowerPoint (Nair & Wider, 2021).

Studies on the benefits of Telegram for the improvement of English writing are still limited in the Colombian context, however, in the international context we can find different studies that help us to get an idea about its benefits if we apply them in the national context (Heidari et al., 2018, Utomo et al., 2021). For instance, the study of Boiko and Volkova (2021) was conducted at a technical university in Ukraine. Eighty-six students from two university groups participated, where one group used Telegram only for organizational issues (control group A) and the other group used it for both organizational issues and educational platform (experimental group B). The results showed significant improvements in students' writing and speaking skills in group B, demonstrating its usefulness in foreign language learning.

In the present study, Telegram was used in conjunction with micro-learning to send content due to the effectiveness of both tools in modern education. Telegram, with its ability to transfer large files and its support for various formats, facilitates quick and easy access to educational materials, while its instant functionalities and ability to create groups and channels aided interaction and collaboration among students. By using Telegram as a vehicle for micro-learning, it is sought to optimize study time and maintain student interest and motivation. This combination allows for efficient and effective delivery of content, improving retention and practical application of knowledge.

3.3 Teaching Methodologies

In the dynamic landscape of language teaching, multiple methodological approaches exist to enhance language acquisition, including Content and Language Integrated Learning (CLIL), Task-Based Learning (TBL), and Communicative Language Teaching (CLT). The present study will specifically implement blended learning and Project-Based Learning (PBL) to investigate the effectiveness of micro-learning in enhancing EFL writing skills. By integrating these complementary methodologies, the research aims to create an innovative learning framework that leverages technology-mediated instruction, real-world problem-solving, and targeted content delivery through Telegram, ultimately providing a comprehensive approach to developing students' writing capabilities in a foreign language context.

3.3.1 Blended learning

Blended Learning is not something new in the educational environment, in fact this approach dates back to about 20 years ago (Ishmuradova et al., 2024). Nowadays, it has almost become the norm to use technology as a classroom ally to further motivate students in the aftermath of the Covid-19 pandemic (Park & Doo, 2024). Blended learning is defined as the combination of face-to-face and technology-mediated instruction. That is, blended learning takes place in a classroom at pre-established times, while technology-mediated instruction takes place in a virtual environment in which students can review content at any time (Wu, 2024).

Allen et al. (2004) in Park and Doo (2024) refer to the proportion of online learning compared to traditional learning in a blended learning model. In a traditional model, all learning is face-to-face. The web-facilitated model includes less than 30% of online activities. On the other hand, blended learning includes between 30% and 79% online learning. Finally, in the online learning model, more than 80% of learning takes place online. These percentages classify blended learning approaches according to the proportion of online and face-to-face activities.

This approach is committed to motivating students as it has been shown that this method can significantly improve student motivation (Liu et al., 2024). In addition to motivation, blended learning is also committed to improving student learning outcomes, enabling students to measure their success, fostering a sense of achievement and motivation, and promoting greater commitment and dedication to the learning process (Kasuma et al., 2024). According to Cronje (2020), this educational approach focuses on the combination of various web-based technology modalities, varied pedagogical approaches and instructional technology, as well as the integration of this technology with real tasks to achieve effective harmonization of learning.

In the present study, blended learning and micro-learning will be used because of their multiple benefits and the synergy they create when combined (Syaharullah et al., 2023). Blended learning allows for an effective integration of face-to-face instruction with online activities, leveraging the advantages of both methods to provide a richer and more flexible learning experience. Micro-learning, on the other hand, focuses on delivering content in small doses, facilitating comprehension and retention of information. By combining these two methodologies, students can benefit from a more interactive and dynamic learning experience, with the possibility of accessing materials anytime, anywhere, which enhances their autonomy and adaptability. This combination also allows customizing the pace and learning style of each student, improving their engagement and motivation.

3.3.2 Project-based learning

Based on the belief that students acquire knowledge and skills through experience and real-world problem solving, Project Based Learning (PBL) has been recognized as an effective and beneficial approach in 21st century education (Thuan, 2018). Although this approach has become much more popular in the present, according to Beckett (2006) in Thuan (2018), its origins date back to the mid-19th century, when David Snedden introduced it to agricultural classes in the United States. Later in the 20th century, William Heard Kilpatrick, a student of John Dewey, developed it further, focusing on the need for students to engage in purposeful activities. Students could construct knowledge through projects based on their interests and individual differences, connecting new knowledge with prior knowledge and applying it in similar contexts, learning in meaningful ways while creating a final product (Thuan, 2018).

Thus, PBL is a method that allows students to design, plan and carry out an extensive project that produces a publicly displayed result, such as a product, publication or presentation. This approach involves students in creating something based on their own plan, ideas and creativity, allowing them to actively participate in the learning process and collaborate with others (Argawati & Suryani, 2020, Yuliani & Lengkanawati, 2017). Successful project-based learning focuses on real-world issues that hold students' interest, requires collaboration among students while allowing for some autonomy and independence, and may include an explicit focus on form and other aspects of language. In addition, this type of learning is both process and product oriented, emphasizing integrated skills and reflection at the end of the project. (Aghayani & Hajmohammadi, 2019).

Thanks to extensive research on the implementation of PBL, multiple authors have designed different steps for a successful implementation that vary from author to author but that undoubtedly keep the same essence (Almazroui, 2023; Miller et al., 2012; Fragoulis & Tsiplakides, 2009). According to Almazroui (2023), PBL is structured in seven key steps: (1) It begins with an essential question or challenge

that is relevant and meaningful to students; (2) in project planning, students and teachers collaborate to set goals and a timeline; (3) research and information gathering is involved, where students search for and gather relevant data; (4) students work on developing tangible products and solutions based on their research. (5) review and feedback is conducted, where students review their work and receive feedback from peers and the teacher; (6) students present their product or solution to a wider audience; (7) reflection on learning is conducted, where both the final product and the learning experience are evaluated, ensuring that students reflect on their process and knowledge gained.

Following these steps, the implementation of Project Based Learning has proven to be highly beneficial to students, according to the study conducted at Negeri Padang University by Alyani and Ratmanida (2021). Students perceived that PBL fosters motivation to learn and makes them more active in class. In addition, this approach significantly improves their collaboration and communication skills as well as their time management. By working on projects, students develop critical 21st century skills, such as critical thinking and creativity, and learn to apply their knowledge in real-world situations. Although they face some challenges, such as difficulty with data collection and time management, the benefits far outweigh the disadvantages, preparing students to be productive, creative and innovative (Alyani & Ratmanida, 2021).

In my study, PBL will be used as a methodological tool, accompanied by micro-learning, to improve students' writing skills. This combination might allow for more active, interactive and focused learning, facilitating the acquisition of skills through meaningful projects and short, targeted learning modules. To ensure a successful intervention, the implementation steps proposed by Almazroui (2022) will be followed, which provide a structured and effective framework for implementing PBL in the educational context. This comprehensive approach is expected to improve students' writing skills and promote deeper and more sustainable learning.

3.4 EFL writing skills

Writing is a creative act of discovery in which the process is as important as the final product (Hyland, 2016). Through writing, people are able to explore and organize their ideas (Hyland, 2016). According to Hyland (2015), writing is influenced both by the writer's personal attitudes and by the political and institutional contexts in which it is produced. In foreign language learning, writing is not simply the graphic representation of spoken language but also involves a unique set of skills due to its permanence and distance, as well as its specific rhetorical conventions (Brown & Lee, 2015).

According to Brown and Lee (2015), specific writing skills are divided into microskills and macroskills. Microskills include producing English graphemes and spelling patterns, writing at an efficient speed according to purpose, generating an acceptable core of words and using appropriate word order

patterns, employing acceptable grammatical systems such as tense, agreement, and pluralization, and expressing particular meaning in different grammatical forms. Macroskills, on the other hand, refer to broader skills that encompass organization and focus on content and audience. These skills are fundamental to the development of the writing process.

The writing process is a set of stages that writers follow to create an effective text. This process, as outlined by Brown and Lee (2015) and Hyland (2015), may vary depending on the pedagogical approach, but generally includes the following phases:

- **Pre-writing:** This stage involves planning and idea generation. Writers may engage in activities such as: Researching the topic. Brainstorming. Conducting readings or discussions to stimulate interest. Organizing their thoughts and deciding on the focus of the text.
- **First Draft:** In this phase, writers sketch out their ideas in a first draft. They focus on content and overall structure, without worrying too much about grammar or spelling. The goal is to let the ideas flow
- **Commenting:** After completing the first draft, writers can receive feedback from peers or the instructor. This stage is crucial for identifying areas for improvement and gaining different perspectives on the text.
- **Second Draft:** In this phase, writers review the content of the text, reorganize ideas, add details and clarify points. Revision focuses on improving the clarity and coherence of the text.
- **Third Draft:** Once the content has been reviewed, writers focus on editing, which involves correcting grammatical, punctuation and stylistic errors. This stage ensures that the text complies with writing conventions.
- **Postwriting:** In this phase, the final text is shared with the audience. This may include delivery to an instructor, online publication, or presentation in a specific format.
- **Evaluation:** Finally, an evaluation of the final product is conducted, which may include self-evaluation, peer evaluation, and instructor feedback. This helps writers reflect on their process and identify areas for improvement in future writing.

The writing process can influence the quality or characteristics of the text. EFL Writing characteristics, from Brown and Lee's (2015) perspective, encompass several fundamental aspects that determine both the quality of the text and the writer's experience of the writing process:

- **Permanence:** Writing is a permanent medium; once written, it cannot be easily changed, which can generate anxiety in writers.

- **Production Time:** Writing can require considerable time to produce a quality text. This is especially relevant in educational contexts where students are expected to write under time pressure.
- **Distance:** Writing implies a distance between the writer and the reader, which requires the writer to anticipate how his or her audience will interpret the text. This implies an understanding of the characteristics and knowledge of the audience.
- **Complexity:** Writing is more complex than speaking. Writers must learn to use discursive features, create syntactic and lexical variety, and combine sentences effectively.
- **Vocabulary:** Writing requires a wider and more varied use of vocabulary than speaking. Good writers must be able to choose words that convey nuances and connotations appropriate to the context.
- **Formality:** Writing may vary in formality depending on the context. For example, the conventions of academic writing are more complex than those of an informal text message.
- **Structure and Organization:** Writing requires clear and consistent organization. Writers should follow a general plan of organization and make sure their ideas flow logically.
- **Proofreading and Editing:** Writing involves a revision and editing process, where writers must be willing to make multiple revisions to improve the clarity and effectiveness of their text
- **Audience:** Writers must consider their audience when writing, which involves adapting content, tone and style to meet the reader's expectations and needs.
- **Genres and Styles:** Writing encompasses a variety of genres and styles, each with its own conventions and characteristics, such as essays, reports, news articles, and so on.

The writing characteristics described by Brown and Lee (2015) are central to understanding and improving writing skills in the context of a PBL and micro-learning approach, as explored in this study. Each of these features offers valuable insight into identifying the specific challenges students face when writing in English as a foreign language (EFL).

Overall, writing in a foreign language is not simply a technical skill, but a complex and multidimensional process that requires a combination of specific skills and a deep understanding of the context in which it occurs. Since the development of effective writing skills is crucial for students' academic and professional success, it is essential to investigate pedagogical and assessment methods that can enhance this process. In this context, the present research aims to explore how micro-learning can contribute to improving pre-service language teachers' writing skills, offering a more dynamic approach adapted to current educational needs. The next section reviews the methods used to assess writing.

3.5 Assessment of Writing

Assessment is an ongoing process that encompasses a wide range of activities designed to measure and understand student performance and learning (Brown & Lee, 2015). Unlike a test, which is a specific, structured method of measuring skills or knowledge at a particular point in time, assessment is more holistic and include observations, written work, and other forms of classroom interaction (Brown & Lee, 2015).

Writing assessment is a complex process that encompasses several aspects and approaches. It is not limited to grading a final text but also considers the student's ongoing development at each stage of writing, from prewriting to postwriting (Brown & Lee, 2015; Hyland, 2015; Weigle, 2016). It is understood as a form of constructive feedback that helps students improve their skills, using comments and grades as learning tools. There are a variety of assessment techniques, including the review of drafts and the use of rubrics, based on specific criteria such as content, organization, and mechanics. In addition, it can be formative (process-oriented) or summative (product-oriented), both of which are essential for the writer's growth. Encouraging self-assessment and peer assessment also enriches the learning process.

Weigle (2016) discusses writing assessment as a process that must be conceptualized both from the perspective of applied linguistics and composition. This implies that assessment focuses not only on grammar and structure, but also on the ability to communicate effectively in the language. This is how Weigle (2016) stresses the importance of authentic assessment which seeks to simulate writing tasks that students might encounter in their daily lives, whether in academic, professional, or social settings. This means that writing tasks should be aligned with the expectations and demands of language use in real situations, which helps students see the relevance of what they are learning, as reviewed below.

3.5.1 Writing tasks

Writing tasks are an essential component in the development of writing skills in EFL. Through tasks, students not only practice language structure and usage, but also learn to organize and express their ideas coherently and appropriately for different contexts and purposes. There are several categories of writing tasks that vary in complexity and in objectives (Brown & Lee, 2015). Brown and Lee (2015) have categorized them into four main types:

- **Imitative:** At the most basic level, imitative tasks involve writing letters, words and very short sentences. This type of task is crucial in the early stages of learning to write, as it lays the foundation for later development. In this category we find writing tasks such as: keyboarding (typing) exercise, copying, completing forms and questionnaires, spelling tasks, etc.

- **Intensive:** Subsequently, form and accuracy are more important than meaning, as students practice grammar and syntax at a more detailed level. In this category we find writing tasks such as: dictocomp (rewrite a story just heard), picture description tasks, sentence completion tasks, etc.
- **Responsive:** As students achieve a solid understanding of sentence-level grammar, they become more concerned with discourse coherence in responsive tasks. These tasks emphasize form at the discourse level, making meaning and context crucial. In this category we find writing tasks such as: paraphrasing, paragraph construction tasks (topic sentence, main idea, etc.), responding to a reading or lecture, etc.
- **Extensive:** At the most advanced level, extensive tasks require writers to focus on achieving a specific purpose by organizing ideas logically and using a variety of syntactic and lexical forms. This type of task is typical in essay writing, tasks in types of writing (narrative, description, argument, etc.) and tasks in genres of writing (opinion essay, research paper, newspaper articles), where cohesion, coherence and organization of content are essential for effective communication of complex ideas.

Writing tasks, therefore, not only serve as assessment tools, but also as learning opportunities. Each task category is designed to develop specific aspects of writing, progressing from foundational skills to the ability to produce complex, well-organized texts. The previous classification is useful in the present study to design the writing tasks that align with micro-learning.

3.5.2 Genre

Genres are considered social processes because they are the result of interactions among members of a culture, who collaborate to achieve them; they are goal-oriented, as they have evolved to achieve specific goals; and they are sequential, as the construction of meanings often requires writers to progress through several steps to reach their goals (Hyland, 2019). In the context of teaching and learning to write, genres represent abstract and socially recognized ways of using language, reflecting how writers often respond to recurring situations (Hyland, 2016). A genre can be defined as: a type of discourse that occurs in a particular setting, that has distinctive and recognizable patterns and norms of organization and structure, and that has particular and distinctive communicative functions (Suksawas, 2018). This definition highlights that genres are not simply formats or molds, but complex systems that have been developed and accepted within particular cultural and social contexts.

In practice, writing genres take the form of a wide variety of text types. These genres are numerous and reflect the complexity of writing skills needed in a literate society (Brown & Abeywickrama, 2019). Some examples include:

- **Academic writing:** general interest articles, technical reports, reference material, essays and theses.
- **Job-related writing:** messages, e-mails, reports, schedules, forms and financial documents.
- **Personal writing:** magazines, e-mails, novels, recipes, advertisements and financial documents.

In academic writing, a variety of genres follow specific conventions that writers need to anticipate and adhere to in order to communicate effectively. Among these, the writing of papers and general subject reports plays a central role, often encompassing the creation of newspaper articles (Brown & Abeywickrama, 2019). Each of these forms of writing requires the ability to present clear arguments, structure content logically, and engage the audience with well-researched information. In this way, academic writing overlaps with journalistic writing, as both aim to inform, analyze, and engage readers through structured, fact-based texts. Given that the course syllabus, where this study was implemented, focuses on reporting past events, the following section defines newspapers articles, as the genre studied in the course.

3.5.3 Newspaper articles

Newspaper articles, as a genre, foster a student-centered approach and enhances their writing and reading skills, making them more logical, purposeful, and meaningful. According to Eldydamouny (2022), newspaper-based activities help develop students' language skills at different levels, from elementary to advanced. In addition, students are motivated to improve their writing skills in order to be able to publish their articles in the context of a newspaper-centered class.

To better understand how newspaper articles can be powerful tools in the development of language skills, it is essential to analyze the stylistic elements that distinguish them from other forms of writing. These elements not only influence the way information is presented but also play a crucial role in how students perceive and learn from journalistic texts. According to Meyrmanova and Kudritskaya (2019) the key stylistic elements that differentiate newspaper language from other forms of writing include:

- **Lexical Features:** Use of newspaper clichés, set phrases, terminological variety, abbreviations, acronyms, and numerous proper names.
- **Compositional Features:** Careful selection of vocabulary, a variety of topics, and extensive use of quotations
- **Syntactical Features:** A blend of book and colloquial syntax, including elliptical sentences, nominative sentences, and segmented constructions.
- **Conciseness and Clarity:** The need for brevity and clarity due to space limitations and the fast-paced nature of news reporting.

- **Emotional Impact:** The language is often designed to convey emotional resonance and engage the reader
- **Standardization:** The presence of standardized phrases and structures, which can lead to a certain lexical decline

Understanding the stylistic elements that distinguish journalistic language provides a solid foundation for appreciating the specific practices that make up effective news writing. These elements not only define the unique style of news articles but also establish the standards and guidelines journalists must follow to communicate clearly and efficiently. Following Telg and Lundy (2021) key components of effective news writing include:

- **Inverted Pyramid Structure:** Presenting the most important information first, followed by less important details.
- **Five Ws and H:** Addressing who, what, when, where, why, and how in the story.
- **Leads:** Crafting a strong lead that captures attention and includes several of the five Ws and H.
- **Objective Writing:** Avoiding personal opinions and editorializing, focusing instead on factual reporting.
- **Quotations and Attributions:** Using direct quotes sparingly and ensuring all non-common knowledge information is attributed to credible sources.
- **Proper Grammar and Punctuation:** Adhering to grammatical rules and punctuation standards.

Analysis of stylistic elements and key practices in journalistic writing reveals how news articles not only serve as an effective learning tool for improving students' language skills, but also how their unique structure and style contributes to their impact and accessibility. By following specific guidelines such as inverted pyramid structure, attention to fundamental questions, and adherence to grammatical rules, students succeed in communicating information in a clear, accurate, and engaging manner. These aspects make newspapers not only a valuable source of information, but also a powerful pedagogical resource for developing reading and writing skills in educational contexts.

3.5.4 Writing assessment tools

Given that the present study aims to identify the effectiveness of micro-learning on writing performance, this section reviews writing assessment methods. The assessment of writing in educational settings can be accomplished through a variety of scoring approaches, each with its own tools, characteristics, and objectives. The three main types of scoring-holistic scoring, analytic scoring, and primary-trait scoring-allow assessors to measure students' writing performance from different perspectives.

Below is a table detailing the definition, key features, and purpose of each of these scoring methods given by Brown and Abeywickrama (2019), which provides a clear idea of how they are applied in writing assessment. Table 3.1 summarizes the main features of holistic, analytic and primary-trait scoring rubrics.

Table 3.1 Features of writing rubrics

Type de scoring	Definition	Main features	Purpose
Holistic Scoring	Assigns a single score to an essay based on the reader's overall impression. Uses a set of qualitative descriptors to guide the evaluation.	- Single score representing the overall evaluation of the text - Based on qualitative descriptors - Requires subjective judgment of the evaluator - Does not break down into specific subcategories.	Provide a quick, overall assessment of student performance in a single score.
Analytic scoring	It breaks down the text into subcategories (such as organization and grammar), assigning separate scores to each.	- Detailed evaluation of specific subcategories - Requires more time to score - Provides specific feedback on areas such as grammar, organization, etc. - Ideal for diagnosing specific areas for improvement.	Provide students with more detailed feedback on specific areas of improvement in their writing.
Primary-Trait Scoring	Evaluates only the achievement of the main purpose of the text, focusing on the specific function of the essay.	- Focuses on the main function of the text - Uses a four-point scale - Implicitly evaluates aspects such as organization and fluency - Less emphasis on other secondary aspects of the text.	Determine how the essay meets a specific objective, ideal for writing with a clear and defined purpose.

In the present study, it has been decided to use the analytic scoring method because of its ability to provide a detailed assessment of several specific aspects of the written text. This approach separately evaluates key dimensions such as organization, which refers to the structure and order of ideas, and logical development of ideas, which focuses on the coherence and connection between the points presented. In addition, it considers grammar, assessing the correct use of grammatical rules, as well as punctuation, spelling and mechanics, which examines accuracy in the use of punctuation marks and other mechanical aspects of the text. Finally, style and quality of expression are also evaluated, focusing on the effectiveness and attractiveness of the language used (Brown & Abeywickrama, 2019; Muhammad et al., 2018). This breakdown of components not only facilitates detailed feedback but also allows writers to understand specific areas where they need to improve.

3.6 Concluding remarks

This study integrates four fundamental theoretical constructs that collectively provide a comprehensive framework for enhancing EFL writing skills: Mobile-Assisted Language Learning (MALL), micro-learning, Telegram as a technological platform, and Project-Based Learning (PBL) with Blended Learning.

MALL was selected for its innovative approach to language learning, leveraging mobile devices' unique capabilities to provide personalized, accessible, and context-sensitive learning experiences. Its potential to transform traditional language learning methodologies, particularly in developing writing skills, makes it a crucial component of this research. Micro-learning complements MALL by offering a strategy of delivering content in small, targeted, and easily digestible units. This approach addresses contemporary learners' needs for flexible, time-efficient learning methods that can be integrated seamlessly into their daily routines. By breaking down complex writing skills into manageable segments, micro-learning facilitates more effective knowledge acquisition and retention. Telegram serves as the technological vehicle for implementing these methodological innovations. Its unique features—such as large file transfers, group interactions, and instant communication—enable efficient content delivery and foster collaborative learning environments. The platform's capabilities align perfectly with the study's objectives of creating an interactive, flexible language learning experience. Project-Based Learning and Blended Learning provide the pedagogical structure for this intervention. PBL's focus on real-world problem-solving and collaborative learning creates meaningful contexts for language development. Blended Learning ensures a balanced approach by integrating face-to-face instruction with online activities, thus maximizing learning opportunities and student engagement.

The strategic integration of these theoretical constructs aims to create a holistic, technology-enhanced approach to EFL writing skill development. By synergistically combining MALL, micro-learning, Telegram, PBL, and Blended Learning, the study seeks to offer innovative solutions to contemporary language teaching challenges, ultimately empowering pre-service language teachers to develop more effective and engaging writing skills.

Chapter 4 Research Methodology

4.1 Chapter overview

This chapter describes the mixed-methods research approach utilized to investigate the effectiveness of micro-learning in enhancing pre-service EFL language learners' writing skills. It provides a detailed overview of the research methodology conducted at Universidad del Valle in Cali, Colombia, involving 22 students from the Bachelor's in Foreign Languages program. This chapter details the research site, participants, data collection instruments, and analysis techniques. It emphasizes the study's validity, reliability, and ethical considerations. By providing this comprehensive methodological framework, the chapter establishes a robust foundation for understanding the research's approach to exploring micro-learning's potential in improving English writing skills among pre-service language teachers.

4.2 Research site and participants

The study was carried out at Universidad del Valle, Cali, Colombia, involving students enrolled in the Integrated Skills in English II course. The group was chosen based on observations made during the "Practica Docente I" course when students were in the Integrated Skills in English I course, where it became evident that students faced challenges in developing their writing skills. As a student of the Bachelor's in Foreign Languages program, this concern was further reinforced by reports from the English subdepartment coordinator, who indicated that students from both the fourth and ninth semesters had shown low performance in their writing skills. This was evident in the results of the ECCE exam for fourth-semester students and the English proficiency test for ninth-semester students. These findings highlighted the need for targeted interventions to support students in improving their writing abilities.

4.2.1 Research site

The research was conducted at Universidad del Valle, specifically at its Meléndez campus, more specifically at the Bachelor's degree in Foreign Languages with an emphasis on English and French. This is an academic program of great significance for this research because it focuses on developing students' language proficiency in both English and French, which includes training in language skills such as writing. The program provides a rich context for studying writing challenges, as it prepares future language teachers who are expected to master and teach these skills. Additionally, as a student of this program, my familiarity with the context and access to participants and information allowed me to have a deeper understanding of the writing difficulties students face. This access provided valuable insights, which helped in interpreting the results more accurately and designing more tailored interventions.

An outstanding aspect of this program is that students are consistently exposed to both English and French throughout their entire degree. In the first cycle, spanning four semesters, students focus on the development of integrated skills I, II, III, and IV, enabling them to acquire a deep understanding of both languages. In the second cycle, they delve into each language more specifically, addressing oral, written, and literary skills individually, promoting a more comprehensive mastery of each language. This gradual and continuous approach is instilled from the first year, allowing students to immerse themselves solidly in the study of foreign languages and their various dimensions.

The program emphasizes theoretical knowledge and practical training about language acquisition. To facilitate this, the university offers a wide range of resources, which include a library housing an extensive collection of materials related to foreign languages, literature, and culture, as well as language labs equipped with advanced technology that enables students to improve their listening and speaking skills in English and French. Technology plays a crucial role in the program, as the Universidad del Valle provides virtual learning platforms and access to databases and electronic resources.

4.2.2 Participants

The study involved 22 students enrolled in the Integrated English Skills II course at Universidad del Valle. These students were part of the Bachelor's degree in Foreign Languages with an emphasis on English and French. The participants ranged in age from 16 to 26 years old. According to the Institutional Educational Project (PEI), their English proficiency level should have been B1.1 (Independent User). However, initial observations and a preliminary survey of participants revealed significant difficulties in their writing skills, with the majority of students perceiving themselves to be at an Intermediate level for writing in English, stating that they can write basic texts but make mistakes. Likewise, another large majority perceived themselves as Beginners, having significant difficulties in writing in English correctly.

Based on the survey results, their primary difficulties included organizing ideas logically, ensuring cohesion and coherence in their texts, and using correct spelling and punctuation. Students had daily access to online resources through laptops and smartphones but were largely unfamiliar with micro-learning, although some had experienced short educational content like videos or mini lessons through platforms such as YouTube or social media. This lack of exposure to micro-learning and their writing weaknesses made these participants suitable for the present study. Access to the participants was facilitated through my involvement in the *Practicum* course, and consent forms were obtained from all students to ensure voluntary participation in the study ([Appendix 1](#)). In this sense, my role was that of a teacher supervised by my research advisor and the course's teacher.

4.3 Research approach and research design

The present study followed a mixed-methods approach and a convergent design, adopting an action research approach and repeated measures to investigate the effectiveness of micro-learning in fostering pre-service EFL language Learners' English Writing skills. The mixed-methods approach was chosen as it allows the researcher to collect and analyze both quantitative and qualitative data, providing a more comprehensive and in-depth understanding of the research problem through multiple sources and perspectives (Johnson & Onwuegbuzie, 2004). Particularly, the convergent design enables the collection of both quantitative and qualitative data simultaneously, allowing for the analysis of each type of data separately before merging the results (Creswell & Creswell, 2018). In the present study, qualitative data included surveys, classroom observations, and interviews, with the purpose of gaining a deeper and more detailed understanding of students' perceptions and experiences regarding traditional teaching approaches and micro-learning. On the other hand, quantitative data included writing performance to identify the effectiveness of micro-learning on students' writing.

Action Research, as defined by Burns (2019), is a qualitative methodology that combines action and research within ongoing social processes in specific contexts, such as classrooms, schools, or organizations. It involves implementing interventions or changes to improve and bring about positive transformations in those processes. In this sense, action research was used to observe how students implement and perceive the instructional interventions aimed at improving their writing skills.

A repeated-measures quasi-experimental design with an intact class of 22 students was implemented in this study. As explained by Verma (2016), a repeated measures design involves collecting data from participants at multiple points throughout the study. In this case, the study began with a pre-test to assess students' initial writing skills, followed by the implementation of the micro-learning model. After the intervention, a post-test was conducted to measure any improvements in the students' writing performance. The quasi-experimental design allowed for partial manipulation of independent variables (Cresswell & Cresswell, 2018), specifically the use of micro-learning resources, without randomly assigning participants to treatment and control groups.

The qualitative component of the study will allow for a detailed exploration of the challenges and benefits perceived by students when implementing micro-learning. Interviews and surveys help understand how students experience and value these strategies, what aspects they consider most helpful, and what challenges they may identify. The quantitative data will provide objective insights into the impact of these strategies on writing quality by measuring the improvement of students' writing skills across several facets (e.g., content, rhetoric, organization, vocabulary, grammar, mechanics) before and after the study.

4.4 Research procedures and data collection methods

Table 4.1 synthesizes the research questions, purposes and data collection methods and analyses of the present study.

Table 4.1 Summary of Data Collection and Analysis Methods

Research Question	Data Collection Methods	Objectives	Data Analysis
RQ1: What are pre-service EFL language teachers' knowledge of micro-learning and what are their needs and strengths regarding writing skills?	- Surveys - Classroom observations - Interviews	- Identify the challenges and benefits perceived by students when implementing micro-learning.	- Thematic analysis to identify recurring themes and patterns in the qualitative data.
RQ2: To what extent do the duration and frequency of micro-learning interventions contribute to the improvement of the quality of English writing produced by pre-service EFL language students, as reflected in the overall and analytical scores?	- Rubric-based evaluation of writing samples - Comparison of global and analytic scores	- To assess the quality of writing produced by English as a foreign language learner using micro-learning. - To compare global and analytical scores before and after the implementation of the interventions.	- Descriptive statistics to summarize the global and analytic scores. - Paired samples t-tests to compare the mean scores of writings between different instructional approaches.
RQ3: What are the challenges and benefits of implementing micro-learning in enhancing writing, as perceived by the students?	- Surveys - Interviews	- To explore students' perception and assessment of the use of micro-learning and the flipped classroom model in teaching and learning English, especially in writing.	- Thematic analysis to identify recurring themes and patterns in the qualitative data.

4.4.1 Diagnostic stage

The diagnostic phase focused on identifying students' writing needs and evaluating their initial proficiency. Classroom observations and an interview with the teacher from the Integrated Skills I course supported the identification of students' writing difficulties. Samples of observations and interview are provided in the appendices. However, students' data from the Integrated Skills II course is presented in the findings chapter. In this sense, a questionnaire and a pre-writing test were administered to gather data on students' writing strengths and weaknesses, providing a clear baseline for the intervention.

4.4.1.1 Classroom observations

According to Zohrabi (2013), classroom observations are a common method used in educational research to collect data on teaching and learning processes. He defines classroom observations as the

systematic and objective observation of teaching and learning in the classroom, aimed at understanding the nature of classroom interactions and the factors contributing to effective teaching and learning. In this study, classroom observations were conducted prior to the interventions, during the "Integrated Skills in English I" course, as part of the diagnostic phase. The observations were recorded in the researcher's journal (See a sample in [Appendix 2](#)). These observations helped identify the students' weaknesses in English writing, particularly in areas such as organization, coherence, and grammatical accuracy. A structured observation protocol, based on Cresswell and Cresswell (2018), was used to systematically collect data on student engagement and their difficulties with writing.

4.4.1.2 Interview with the Teacher

According to Baskarada (2014), open-ended interviews do not impose predefined response categories and use open-ended questions, allowing for greater flexibility. Although less efficient, these interviews can generate rich data and uncover unexpected perspectives. In this study, an open-ended interview was conducted with the course teacher to gain an in-depth understanding of the students' writing skills and the activities implemented in the classroom to improve them. The perceptions of the teacher in charge of the group were crucial to this study because, as the main agent in the classroom, he provided valuable insights into the natural setting, student behavior, and writing challenges. His perspective offered a clear view of the strengths and difficulties students faced when engaging in writing tasks. For this reason, an open-ended interview was conducted to gather his opinions on various aspects, such as the type of activities implemented, the teaching methodologies used, and students' preferences regarding these activities ([Appendix 3](#)).

4.4.1.3 Initial perception questionnaire

An initial perception questionnaire was designed to gather data on students' perceptions of their writing abilities, familiarity with micro-learning, and specific challenges in writing English. According to Creswell and Creswell (2018), a questionnaire consists of questions or statements to which individuals respond, and it is commonly used to collect data on various topics and issues. The questionnaire can be administered in multiple formats, such as paper-based, online, or via telephone. In this study, the questionnaire was distributed online through Google Forms and comprised 22 questions, divided into four sections:

- **Section A:** Information on internet use and smart devices.
- **Section B:** Perceptions of writing in English.
- **Section C:** Perceptions of micro-learning.

- **Section D:** Resources used for writing.

In the context of "Práctica Docente I," a pilot version of this questionnaire was administered to students in the Integrated Skills in English I course. The questionnaire was reviewed by the supervisor at this stage, and based on the feedback, it was revised. The final version of the questionnaire was again reviewed by the supervisor and subsequently applied during "Práctica Docente II" with the students from the Integrated Skills in English II course, who participated in the present study. This final version was administered before the intervention to gain a clear understanding of the students' perceptions of their writing needs and their level of familiarity with micro-learning ([Appendix 4](#)).

4.4.1.4 Pre-writing test

The pre-test consisted of a writing task in which students were required to write a news report for a magazine about a cultural event in the San Antonio neighborhood of Cali. The task prompt was administered to the students, and they were given 90 minutes during class time to complete the assignment. The pre-test was conducted online, and students wrote their reports using Google Docs. This approach not only facilitated faster writing and easier revision but also aligned with the Mobile Assisted Learning (MALL) aspect of the study, allowing students to become more familiar with digital tools for writing. The objective of the pre-test ([Appendix 5](#)) was to assess the students' initial writing skills, specifically their ability to organize ideas, use appropriate vocabulary, maintain coherence, and apply correct grammar in a news report format. The task was aligned with the course's micro-curriculum, ensuring that the pre-test was relevant to the students' academic context. An analytic rubric was used to evaluate the pre-test, measuring key aspects such as organization, content, grammar, vocabulary, and coherence, as described below.

4.4.1.5 Analytic scoring rubric

According to Brown and Abeywickrama (2019), an analytic scoring rubric is an effective tool for classroom evaluation, as it breaks down a complex task into specific components, allowing for detailed feedback on each element. This type of rubric typically includes criteria along one axis and performance levels along the other, with each cell describing the level of achievement for a particular criterion. An analytic scoring rubric was developed to systematically assess students' performance in the pre-test and post-test writing tasks. Given that students were tasked with writing a news article, the rubric included specific criteria grouped into content structure, writing mechanics, and language use. Content structure encompassed the headline, lead, body, and tail sections, as well as the use of visuals to enhance the article. Writing mechanics focused on style, readability, and text length. Language use was assessed through grammar and vocabulary accuracy.

The rubric featured five levels of performance, ranging from low performance to outstanding. Each level corresponded to a numerical score from 1 to 5, where 1 indicated low performance, 2 represented needs improvement, 3 corresponded to good, 4 to very good, and 5 to outstanding. This scoring system provided a clear measure of students' strengths and areas requiring improvement. The rubric was reviewed by the study supervisor to ensure alignment with course objectives and research goals. Evaluations were conducted after both the pre-test and post-test, using the rubric to score each criterion based on the content and quality of each student's text. The insights gained from the pre-test and the rubric allowed for a clearer focus during the intervention phase, helping to identify exactly what areas required targeted instruction and guidance ([Appendix 6](#)).

4.4.2 Intervention stage

The intervention stage of the study was designed to address the specific writing challenges identified during the diagnostic phase. This stage combined two innovative teaching approaches—Project-Based Learning (PBL) and micro-learning—with the goal of enhancing students' writing skills. Throughout the intervention, students engaged in activities that promoted active learning, collaboration, and the development of writing competencies, particularly in organizing ideas, improving grammar, and ensuring coherence in their texts.

The intervention was structured into several components, including PBL lessons, micro-learning materials, and reflective writing journals. These components were carefully integrated to provide a comprehensive learning experience, allowing students to apply their knowledge in real-world writing tasks while receiving targeted instruction and support. This phase aimed to foster students' improvements in technical writing skills and engagement in their learning process. The intervention was structured over a five-week period, with two-hour sessions held twice a week. Table 4.2 outlines the planned activities for each class, from the initial assessment to the conclusion of the intervention:

Table 4.2 Schedule of Activities for the Intervention

Class number	Week	Day of the week	Hours per day	Planned Activity
1	Week 1	Monday	2h	- Conducting a survey aimed at discerning students' needs and strengths. - Implementation of the pre-test, which includes the assignment of a writing task as a key evaluative instrument to measure the initial level of competencies and skills.
2		Wednesday	2h	- The project presentation will include a detailed presentation of the research in progress, highlighting the relevance and scope. - The final project of both the researcher and the participants will be shown, highlighting the fundamental purpose to cultivate a deep and motivating understanding of each initiative in a comprehensive session.
3	Week 2	Monday	2h	Class 1 - Implementation start
4		Wednesday	2h	Class 2 - Implementation
5	Week 3	Monday	2h	Class 3 - Implementation
6		Wednesday	2h	Class 4 - Implementation
7	Week 4	Monday	2h	Class 5 - Implementation
8		Wednesday	2h	Class 6 - Implementation
9	Week 5	Monday	2h	Class 7 - Implementation
10		Wednesday	2h	Class 8 - Implementation end - Session dedicated exclusively to the Post-test, evaluating the learning achieved. - Subsequently, a survey will be conducted to capture participants' perceptions and experiences of the session, providing a comprehensive assessment of their understanding and satisfaction.

4.4.2.1 PBL lessons

The Project-Based Learning (PBL) component of the intervention was designed to immerse students in real-world writing tasks, aligning with the course's thematic focus on news reporting and journalism. Over the course of five weeks (20 hours total), students worked collaboratively to develop a final project: the creation of a zine. This project provided opportunities for students to explore the structure of news articles, engage in critical discussions about journalism, and apply journalistic writing skills in a creative and meaningful way. Initially, students were introduced to the concept of journalism and the structure of news articles, including components like headlines, leads, body, tail, and visuals. As the lessons progressed, students analyzed real-world news items, practiced writing different sections of a news article, and received continuous feedback from both peers and the teacher. Grammar and vocabulary specific to journalism were integrated into each lesson, with students practicing structures such as passive voice and journalistic terms like bias, objectivity, and reliability of sources. The PBL classes were divided into seven stages as proposed by Almazroui (2022):

1. **Essential question:** The project began with an essential question that connected to students' interests and experiences: *How can we report and present relevant news about our university and community in a meaningful way?* This question served as the foundation for the zine project, giving students a clear purpose and real-world relevance for their writing.
2. **Project planning:** In collaboration with the teacher, students set goals and established a timeline for completing the zine. The planning phase included defining the structure of their news articles, brainstorming potential topics, and organizing their tasks as a group to ensure efficient workflow.
3. **Research and information gathering:** Students engaged in independent and collaborative research to gather information for their news articles. This stage involved identifying reliable sources, collecting data on local events, and analyzing news articles for style, content, and structure. They also practiced evaluating sources for credibility and relevance, enhancing their critical thinking skills.
4. **Product development:** Based on their research, students began drafting their news articles. They applied journalistic writing techniques, using headlines, leads, body text, and visual elements to construct meaningful and structured news pieces. The zine served as a tangible product that integrated both their research and creative expression.
5. **Review and feedback:** Peer review and teacher feedback were integral to the project. Throughout the writing process, students presented their drafts to their peers for constructive feedback, and the teacher provided guidance on improving structure, grammar, and style. This iterative process allowed students to refine their work continuously.

6. **Presentation:** Upon completing their articles, students published their zines and presented them to the class. Each group shared the content of their zine, explaining their design choices, the topics covered, and the journalistic techniques they used. This presentation fostered a sense of achievement and accountability.
7. **Reflection:** In the final phase, students reflected on both the final product and their learning experience. They discussed the challenges they faced during the project, the skills they improved, and the knowledge they gained about journalistic writing. This reflection ensured that students not only improved their writing but also developed a deeper understanding of the writing process and the importance of collaboration and feedback.

The PBL approach provided students with a structured yet flexible framework to develop their writing skills in a meaningful and engaging way. By immersing students in a real-world task such as creating a fanzine, they were able to apply theoretical knowledge in a practical context, enhancing both their understanding of journalism and their ability to produce coherent, well-structured writing. The combination of collaborative work, continuous feedback, and reflective practices ensured that students not only improved technically but also gained confidence in their writing. Ultimately, the PBL lessons fostered a deeper connection between students and the content, motivating them to take ownership of their learning and actively participate in the writing process ([Appendix 7](#)).

4.4.2.2 *Micro-learning materials*

As part of the intervention, micro-learning materials were incorporated to reinforce and complement the classroom activities. These materials were shared through a Telegram group, as it offered better connectivity and user-friendly features such as scheduled messages. This allowed the instructor to program the distribution of content in advance, ensuring that students received timely resources without the need for manual posting each day. The micro-learning materials included short videos, infographics, images, and fun facts related to the writing tasks and concepts being addressed in class. These resources were intentionally brief, with videos lasting no more than a minute and infographics providing concise yet comprehensive overviews of key topics. The materials were designed to reinforce classroom content, offering additional explanations or examples on subjects such as text structure, vocabulary, and spelling.

The frequency of the materials depended on the students' needs. When certain topics required reinforcement, additional resources were shared, especially after identifying challenges during classroom discussions or feedback on writing tasks. For instance, if students struggled with the structure of their news articles or vocabulary usage, targeted micro-learning materials were provided to address these specific areas.

Additionally, as the teacher reviewed students' drafts and noticed recurring issues in grammar, spelling, or structure, relevant micro-learning materials were shared to help students improve these aspects of their writing.

The response to the micro-learning materials was overwhelmingly positive. Telegram's analytics allowed the instructor to track how often materials were viewed, revealing high levels of engagement. Some videos and images were viewed multiple times by students, indicating that the materials were well-received and useful. This approach provided an effective way to reinforce classroom learning in a flexible and accessible manner, allowing students to engage with the content at their own pace while enhancing their writing skills ([Appendix 8](#)).

4.4.2.3 Journals

The same journal format used in the initial phase ([Appendix 2](#)) served as a reflective tool throughout the intervention, allowing the researcher to document the students' progress, reactions, and behaviors during each class. The primary purpose of the journals was to record observations on how students engaged with the Project-Based Learning (PBL) activities, noting both their successes and the difficulties they encountered. Additionally, the journals provided a space for reflecting on the dynamics in the classroom, identifying which activities students found most engaging and where they faced challenges.

Entries were made after each class, twice a week, and organized by week to track ongoing progress. Each journal entry included a summary of the day's events, reflections on student participation, and an evaluation of the effectiveness of the lesson. This process helped in adjusting lessons to better suit the students' needs and address common issues. For instance, through these reflections, it became clear which aspects of the writing tasks required more support, leading to the integration of additional materials or strategies to reinforce learning. The journals also played a crucial role in evaluating the overall effectiveness of the intervention. By regularly reviewing the students' progress and reactions, the researcher was able to pinpoint areas that needed further attention, such as reinforcing certain writing skills or adjusting classroom activities to maintain student engagement. This reflective practice allowed for a more responsive and adaptive teaching approach throughout the intervention.

4.4.3 Evaluation

The evaluation phase aimed to measure the impact of the intervention on students' writing skills. To assess the progress made during the intervention, a post-test and a final perception questionnaire were administered. These tools allowed for a detailed comparison of students' writing abilities before and after the intervention, focusing on key areas such as structure, grammar, vocabulary, organization, spelling, and

text length. The same rubric used in the pre-test was applied in the post-test to ensure consistency in evaluation.

The evaluation was directly aligned with the objectives of the intervention, as it sought to determine whether micro-learning had effectively improved the students' writing performance. By comparing the results of the pre-test with the post-test and analyzing the students' perceptions through the final questionnaire, this phase provided insights into both the measurable improvements in writing and the students' experiences during the learning process.

4.4.3.1 Post-test

The post-test was designed to assess the progress students made after the intervention and was conducted online, following the Mobile Assisted Language Learning (MALL) approach used throughout the course. The task for the post-test was similar to that of the pre-test: students were asked to write a news report. The prompt for the task was carefully reviewed and approved by the study supervisor to ensure its alignment with the course objectives and the skills being assessed. The same analytic rubric used in the pre-test was applied to evaluate the post-test, assessing key areas such as structure, grammar, vocabulary, organization, spelling, and text length. This consistent use of the rubric allowed for a direct comparison of the students' performance before and after the intervention.

4.4.3.2 Final perception questionnaire

The final perception questionnaire aimed to gather feedback from students regarding the impact of the micro-learning intervention on their writing skills. The questionnaire was administered online, and all 22 students completed it during class time. It included a range of questions about how students perceived the content shared via Telegram, the accessibility of the micro-learning materials (such as videos and infographics), and the effectiveness of the intervention in improving their writing abilities. The questions explored various aspects of the students' experience, including the frequency and usefulness of the content, how well the materials complemented in-class learning, and the perceived impact of micro-learning on key writing skills such as structure, vocabulary, and grammar. Students were also asked whether they found micro-learning to be a beneficial approach for future classes, and whether they preferred its integration both inside and outside the classroom.

The overall responses were largely positive, with many students highlighting the helpfulness of the concise, easily accessible materials shared via Telegram. They felt that the micro-learning resources effectively reinforced the topics discussed in class and contributed to their understanding of news article writing. Additionally, students appreciated the format of the materials, which allowed them to review

important concepts at their own pace. These findings demonstrated that micro-learning had a positive impact on their writing skills, particularly in structure, organization, and vocabulary.

4.5 Data analysis

4.5.1 Analysis of quantitative data

To analyze the quantitative data collected from the pre-test and post-test, the results were first organized into Excel sheets and then uploaded into JASP, a statistical analysis software. The primary focus of this analysis was to evaluate the impact of the intervention on students' writing skills. The analysis began by calculating descriptive statistics for both the pre-test and post-test to provide an overview of the central tendencies and dispersion of the results. A paired-samples t-test was used to compare students' performance before and after the intervention (Pallant, 2016).

To ensure the validity of the data, the Shapiro-Wilk test was performed to evaluate the normality of the distribution. This statistical test is used to determine whether a dataset follows a normal distribution, which is a fundamental assumption for many parametric statistical analyses. If the data are normally distributed, parametric tests like the t-test can be applied; otherwise, non-parametric alternatives are recommended.

The resulting p-values from this test indicated whether the data conformed to a normal distribution. A p-value represents the probability of obtaining results as extreme as the observed ones, assuming the null hypothesis is true. In this context, if the p-value is below a predetermined significance level (typically 0.05), it suggests that the data significantly deviate from normality, necessitating the use of non-parametric tests.

Since the Shapiro-Wilk test revealed that 10 out of 11 sets of data did not meet the assumptions of normality, the non-parametric Wilcoxon Signed Rank test was utilized to compare the pre-test and post-test scores. Unlike the t-test, which assumes normal distribution, this test is a non-parametric alternative used to analyze paired samples when the normality assumption is violated. It ranks differences between paired observations and assesses whether the median difference is statistically significant.

The Wilcoxon Signed Rank test allowed for the evaluation of whether there was a significant difference between the two sets of scores, indicating if the intervention had a measurable impact on the students' writing performance. Through this process, we were able to observe clear improvements in various areas, such as structure, vocabulary, and grammar, which aligned with the objectives of the intervention.

Additionally, numerical responses from the final perception questionnaire were analyzed to quantify students' feedback on the effectiveness of micro-learning and its role in improving their writing skills. This

analysis provided further insights into the success of the intervention from both a performance and a student perception perspective.

4.5.2 Analysis of qualitative data

The qualitative data for this study included open-ended responses from the final perception questionnaire, classroom observations, interviews with the teacher, and entries from the researcher's journal. These data were analyzed using a thematic analysis approach, as outlined by Braun and Clarke (2022), which is a systematic method for identifying, analyzing, and interpreting patterns or themes within qualitative data. This approach involved a detailed process of reviewing transcripts, coding segments of the text, and categorizing those segments to capture the essence of the students' perspectives and experiences.

Thematic analysis began with careful reading of the data, followed by the generation of initial codes that summarized key points. These codes were then grouped into broader categories that reflected common themes, such as improvements in student confidence, positive perceptions of micro-learning, and areas of difficulty encountered during the intervention and feedback processes. Google Docs and Google Sheets were used to organize and categorize the qualitative data manually. The analysis revealed several recurring themes. One of the most prominent was the increase in students' confidence in their writing abilities, which aligned with their quantitative improvements. Another key theme was the students' positive perception of micro-learning as a helpful tool for reinforcing in-class lessons and facilitating independent study. Additionally, areas of difficulty, such as challenges with grammar and spelling, were also identified, highlighting specific areas where further support was needed.

The qualitative findings supported the results of the quantitative data, reinforcing the effectiveness of the intervention in improving students' writing skills and providing a deeper understanding of how students experienced the learning process.

4.6 Validity and reliability

To ensure the validity and reliability of the findings, several methods were employed throughout the study. Test-retest reliability was used to assess intra-rater consistency. As the primary researcher, I conducted an initial assessment of the pre-test and post-test writing tasks and then reassessed the same tasks after a period of time to determine if the ratings remained stable. This method helped verify that the scores assigned to the writing tasks were consistent across time, enhancing the reliability of the evaluations.

Additionally, member checking was utilized to strengthen the validity of the qualitative findings. Following Creswell and Creswell (2018), this process involved sharing the preliminary results, descriptions, and themes identified during the qualitative analysis with the participants. Follow-up interviews were

conducted to ensure that the participants' feedback validated the accuracy of the findings and that their experiences were accurately represented in the final report. Triangulation of multiple data sources also enhanced the credibility of the research. Data from interviews, classroom observations, and written tasks were cross-examined to identify consistent patterns and themes, ensuring a comprehensive and trustworthy interpretation of the data. By integrating evidence from different sources, the potential for bias was reduced, contributing to a more robust and nuanced understanding of the research topic. Also, a detailed description of procedures help researchers replicate this study and confirm or disconfirm the results based on their contexts.

4.7 Ethical considerations

Ethical standards were rigorously upheld throughout the study to protect the rights and well-being of all participants. Prior to the start of the research, formal approval was obtained from the relevant authorities and gatekeepers, ensuring that access to the participants and research site was granted in an ethical manner. Full disclosure of the study's purpose and objectives was provided to participants, allowing them to make informed decisions about their involvement.

Participants were assured that their participation was voluntary, and no coercion was applied when requesting consent. Informed consent forms were obtained, and special care was taken to ensure that the research activities caused minimal disruption to the classroom environment. Transparency was maintained throughout the study, with deception strictly avoided. To protect the privacy of participants, all personal information was kept confidential, and data was securely stored to prevent unauthorized access. These ethical measures ensured that the research was conducted with integrity and respect for the participants' rights.

4.8 Concluding remarks

The implementation of the intervention to improve students' writing skills required careful planning and execution. A mixed-methods research design was chosen to ensure the reliability and validity of the findings, drawing on both quantitative and qualitative data from various sources. This comprehensive approach allowed for a deeper exploration of the study's objectives and provided a thorough understanding of the impact of the intervention.

Chapter 5 Findings

5.1 Chapter overview

This chapter presents the findings of the study on how micro-learning interventions influenced the English writing skills of pre-service language teachers. Specifically, this chapter addresses the participants' initial knowledge of micro-learning and their writing needs and strengths, evaluates the impact of the intervention on their writing performance, and explores the benefits and challenges associated with implementing micro-learning. The chapter is organized into three main sections, answering each of the three research questions.

5.2 Pre-service EFL language teachers' knowledge of micro-learning and writing needs and strengths

To answer this research question, a questionnaire was distributed among 21 pre-service EFL teachers enrolled in the Integrated Skills II course. This questionnaire aimed to assess the participants' familiarity with micro-learning, as well as their perceptions of their own needs and strengths in terms of writing skills. The questionnaire contained a mix of closed-ended and open-ended questions. The results will be presented in three parts: pre-service teachers' knowledge of micro-learning; their perceived writing needs and strengths and writing performance data results.

5.2.1 Pre-service EFL language teachers' knowledge of micro-learning

To identify the pre-service EFL teachers' knowledge of micro-learning, a questionnaire addressed their familiarity with the concept and use of resources related to brief educational content. A total of 21 students responded to these questions. Table 5.1 summarizes the students' responses.

As shown in Table 5.1, the majority of students (47.6%) were not familiar with micro-learning, while 38.1% heard of the concept but did not fully understand it. Only few (14.3%) answered to be familiar with this methodology. Most students (66.7%) used social networks to access brief educational content, whereas less students (28.6%) used them frequently. Very few students (4.8%) never used platforms or applications for this purpose. The most used social networks were YouTube (27.2%), followed by TikTok and Instagram (both with 24.2%). Respecting the use of short educational videos, 76.2% of the students consume them frequently, and 23.8% do so occasionally. From these results, it can be said that these students were users of short videos, but it is unclear to which purposes they watched them.

Table 5.1 Pre-service EFL language teachers' knowledge of micro-learning: familiarity and uses of resources

Students' perceptions of micro-learning		
Familiarity with micro-learning	<i>n</i>	%
• No, I have never heard of micro-learning before.	10	47,6%
• I have heard about it, but I'm not quite sure what it's all about.	8	38,1%
• Yes, I am completely familiar.	3	14,3%
Frequency of use of social networks for brief educational content	<i>n</i>	%
• Regularly	14	66,7%
• Sometimes	6	28,6%
• I have never used such an application or platform	1	4,8%
Types of social networks students use that offer brief educational content	<i>f</i>	%
• Youtube	9	27,2%
• Tiktok	8	24,2%
• Instagram	8	24,2%
• Tandem	2	6,06%
• Busuu	1	3,03%
• Duocards	1	3,03%
• Rosetta Stone	1	3,03%
• X (before twitter)	1	3,03%
• Quora	1	3,03%
• Reddit	1	3,03%
Use of short educational videos	<i>n</i>	%
• Yes, frequently	16	76,2%
• Occasionally	5	23,8%
• No, I rarely find these kinds of videos	0	0%

5.2.2 Pre-service EFL language teachers' writing needs and strengths

This section presents the results of the students' perceived needs and strengths and their actual writing performance.

5.2.2.1 Students' perceptions of their writing needs and strengths from the survey

Table 5.2 summarizes students' perceptions of their strengths and needs in writing.

Table 5.2 Students' perceptions of needs and strengths

Perceptions of English writing proficiency level	<i>n</i>	%
● Intermediate level - I can write basic texts, but I make mistakes.	11	52,4%
● Beginner level - I have significant difficulty writing English correctly.	9	42,9%
● Advanced level - I am very good at writing in English with few errors.	1	4,8%
Type of texts written in English	<i>f</i>	%
Informal writing	31	74%
● Messages in social networks	17	40,5%
● Comments in social networks	14	33,3%
Academic and formal writing	11	26%
● Emails	4	9,5%
● Academic essays	3	7,1%
● Articles or blogs	3	7,1%
● Short stories	1	2,3%
Frequency of English writing in the classroom	<i>n</i>	%
● I write occasionally in some classes.	9	42,9%
● I write regularly, but not in every class.	5	23,8%
● I write in almost every class.	5	23,8%
● I rarely write in my classes	2	9,5%
Perceived strengths in English writing	<i>f</i>	%
● Writing grammatically correct sentences	11	24,4%
● Organizing ideas logically	10	22,2%
● Expressing ideas creatively	9	20%
● Explain ideas clearly	7	15,6%

● Structure coherent paragraphs	7	15,6%
● Punctuation	1	2,2%
Perceived needs in English writing	<i>f</i>	%
● Organization and cohesion of the text	31	54,3%
● Clear and effective expression of ideas	13	23%
● Spelling and punctuation	12	21%
● Grammar	1	1,7%

As shown in Table 5.2, when asked to rate their proficiency in English writing, most students (52.4%) perceived themselves as being at an intermediate level, indicating that they could write basic texts but still made mistakes. This was followed by a rather high percentage of students (42.9%), perceiving themselves as beginners. These results indicate that the course was composed of students with different levels, as perceived by them: half intermediate-level and half beginners.

Regarding the types of texts written in English, the majority of students reported a higher engagement with informal writing, with 74% reporting that they frequently wrote messages and comments on social networks. In contrast, only 26% reported writing academic or formal texts, such as emails, essays, or articles, with very few students (7.1%) stating they had written academic essays, blogs, or articles. Likewise, less than half of students (42.9%) engaged in writing tasks in their classes. This indicates that, at this curricular level, students are not engaged in academic writing tasks, which is concerning because they should be having a stronger focus on academic skills.

This lack of academic writing practice is reflected in the students' perceived needs in which they reported having difficulties in organization and cohesion of the text (54,3%), clear and effective expression of ideas (23%) and spelling and punctuation (21%). In terms of their writing strengths, students felt most confident to write grammatically correct sentences (24.4%) and organize ideas logically (22.2%).

5.2.2.2 *Students' writing performance from the pre-writing test*

The students' writing abilities were assessed using a writing task designed to evaluate various aspects of their written English. The task, based on real-world scenarios, asked students to assume the role of a reporter for La Palabra newspaper at Universidad del Valle. They were tasked with writing a detailed report on a cultural event in the San Antonio neighborhood in Cali, requiring them to describe the atmosphere, history, and cultural significance of the area, while incorporating quotations from residents to reflect different perspectives.

To evaluate student performance, an analytic scoring rubric was used. This rubric assessed several components, including the headline, lead, body, tail, visuals, style, grammar, vocabulary, readability, and text length. The rubric offered a detailed breakdown of student performance, with scores ranging from 1 (low performance) to 5 (outstanding).

Table 5.3 Results of students' writing performance from the pre-writing test

Descriptive Statistics							
	N	Mode	Median	Mean	Std. Deviation	Shapiro-Wilk	P-value of Shapiro-Wilk
Average	19	3.4 ^a	3.2	3.1	0.479	0.862	0.011
Headline	19	1.0 ^a	1.0	1.6	0.997	0.670	< .001
Lead	19	2.0 ^a	3.0	3.0	0.678	0.898	0.045
Body	19	3.0 ^a	3.0	2.9	0.629	0.850	0.007
Tail	19	3.5 ^a	3.0	3.0	0.910	0.975	0.868
Visuals	19	1.0 ^a	1.0	1.3	0.943	0.388	< .001
Style	19	4.0 ^a	3.5	3.5	0.577	0.790	< .001
Grammar	19	4.0 ^a	3.6	3.6	0.678	0.822	0.002
Vocabulary	19	3.5 ^a	3.5	3.6	0.583	0.843	0.005
Readability	19	4.0 ^a	4.0	3.6	0.880	0.828	0.003
Text length	19	5.0 ^a	5.0	4.6	0.832	0.615	< .001

^a The mode is computed assuming that variables are discrete.

Table 5.3 presents the results of the pre- writing test, starting with the average score, which summarizes students' overall performance across all categories. The average score for the entire test was 3.1, indicating a moderate level of writing proficiency among the students. The Shapiro-Wilk test for normality produced a p-value of 0.011, which suggests that the data is not normally distributed and that there is some variability in students' performance across different aspects of writing.

Looking into specific areas, students performed best in *Text length* with an average score of 4.6. This suggests that students were fluent in writing, being able to meet the word count expectations of the task, staying within the required range of 400 to 500 words. Similarly, students performed relatively well in *Readability*, *Vocabulary*, *Grammar*, and *Style*. This indicates that their writing was generally easy to follow, with a smooth flow of ideas that did not require frequent re-reading. There was also a good understanding of grammar and vocabulary, which confirms students' perceptions of their strengths in these linguistic aspects. Appropriate style suggests that most students were able to maintain a formal, academic tone appropriate for a university-level audience.

However, some areas of writing posed significant challenges. The lowest average score was observed in the use of visuals ($M = 1.3$), where students struggled to incorporate relevant images to complement their reports. This low performance also included *Headline*, *Lead* and *Body*. These results suggest that students may not have been fully aware of how to integrate visuals effectively into their writing

or were not aware of the importance of images in the journalist genre. Regarding the absence of Headlines, students were unable to create concise, engaging, and informative headlines that clearly reflected the content of their reports. Similarly, the absence of the lead section of the reports, which is essential for drawing readers in, shows that students needed further development in crafting compelling introductions.

In terms of organization and cohesion, the low results of the Body section show that students were able to present their arguments; however, there was room for improvement in supporting these arguments with relevant sources and ensuring a logical flow throughout their texts.

In terms of distribution, the standard deviation values indicate varying levels of confidence among students across the different writing components, with text length showing the least variation and areas like visuals showing higher variability. The Shapiro-Wilk test results point to non-normal distributions for most categories, indicating that the spread of students' writing abilities is not uniform across the group.

5.2.3 Pre-service EFL language teachers' writing strategies and resources

This section presents the findings regarding the strategies and resources students used to improve their writing skills in English (See Table 5.4).

Table 5.4 Pre-service EFL Teachers' Writing Resources and Strategies

Resources		
Participation in Online Study Groups or Channels	n	%
No, I have never participated in groups of this type	18	85,7%
Yes, from time to time	2	9,5%
Yes, on a regular basis	1	4,8%
Educational Resource Utility in Messaging Applications	n	%
Yes, definitely	16	76,2%
It depends on the type of resources	5	23,8%
No, I prefer other methods of accessing educational materials	0	0%
Strategies to Improve Writing in English	f	%
Grammar correction applications or programs	16	33,3%
Online dictionary consultation	13	27%
Learning through online tutorials	11	23%
Proofreading by peers	7	14,6%

Subtitles in their original language	1	2,1%
Resources for Learning to Write in English	f	%
Educational videos on writing in English	16	34,7%
Mobile applications designed to improve English writing	11	24%
Online platforms that offer English writing resources (e.g., Grammarly, Hemingway App)	7	15%
Face-to-face classes focused on writing in English	5	11%
English writing podcasts	4	9%
Infographics explaining English writing techniques	1	2,1%
Textbooks focused on English writing	1	2,1%
None	1	2,1%

According to the results in Table 5.4, most students (85.7%) never participated in online study groups, suggesting their limited engagement in collaborative online learning environments. The results also show that most students (76.2%) perceived that educational resources are highly useful, while 23.8% noted that their usefulness depended on the type of resources shared.

In terms of strategies to improve writing in English, grammar correction applications or programs were the most frequently used (33.3%). Online dictionary consultation followed closely with 27%, and learning through online tutorials was reported by 23%. Peer proofreading was less commonly utilized, with 14.6% of participants mentioning it, and a small percentage (2.1%) used subtitles while watching blogs to enhance their writing skills.

Finally, Table 5.4 illustrates the variety of resources employed by participants to improve their writing in English. Educational videos on writing were the most commonly used resource (34.7%), followed by mobile applications (24%) and online platforms such as Grammarly or Hemingway App (15%). Face-to-face classes (11%) and English writing podcasts (9%) were less popular, while traditional resources such as textbooks and infographics were seldom used (2.1%). Interestingly, one participant (2.1%) indicated that they did not use any resources to learn English writing.

These results suggest that, although students did not engage in online academic groups, they looked for online resources that meet their interests and needs. Hence, more academic work was needed.

5.3 Micro-learning interventions in the improvement of students' writing quality

To address this research question, data was collected and analyzed from two key instruments: the pre-test and post-test writing tasks. These tasks evaluated both overall writing quality and specific analytical aspects of students' writing, such as grammar, visuals, vocabulary, and structural elements (e.g., headline, lead, body, and tail). A total of 19 students participated in both tests, providing a comprehensive dataset for assessing the impact of micro-learning interventions. This is because only these 19 participants successfully completed both the pre-test and post-test. Therefore, while the study was designed for a larger sample, the results reflect the data from those who fully engaged with all stages of the research process.

The results are presented using descriptive and inferential statistics. Descriptive statistics, such as mean scores, standard deviations, minimum, and maximum values, are used to summarize students' performance in the pre-test and post-test. Inferential statistics, including paired-samples t-tests and Wilcoxon signed-rank tests, are employed to determine whether the observed differences in scores are statistically significant. Additionally, effect sizes and 95% confidence intervals are provided to quantify the magnitude of the interventions' impact.

The findings are divided into two main sections: overall writing quality and analytical aspects of writing. The overall scores offer a general view of the students' writing improvement, while the analytical aspects provide a more detailed examination of specific areas of growth. This comprehensive analysis highlights the extent to which the duration and frequency of micro-learning interventions contributed to the enhancement of students' English writing skills.

5.3.1 Students' overall writing performance

Tables 5.5 and 5.6 presents the descriptive and inferential statistics of the pre-test and post-test overall writing scores. These results illustrate the progression in students' writing quality after the micro-learning interventions, providing evidence of significant improvement. The analysis includes mean scores, standard deviations, minimum and maximum scores, and statistical tests to confirm the impact of the interventions.

Table 5.5 Students' overall writing performance: Descriptive statistics

		Descriptive statistics		
	N	M (SD)	Min	Max
Pre-test	19	3.1 (0.5)	1.9	3.6
Post-test	19	4.2 (0.7)	2.5	4.9

Table 5.6 Students' overall writing performance: Inferential statistics

Inferential statistics						95% CI for Effect Size		
Test	Statistic	z	df	p	Effect Size (d)	SE Effect Size	Lower	Upper
Paired t test	-9.139		18	< .001	-2.097	0.390	-2.902	-1.273
Wilcoxon	1.000	-3.783		< .001	-0.989	0.256	-.996	-.971

Cohen's d (1988) interpretation: small ($d = 0.2$), medium ($d = 0.5$), and large ($d = 0.8$)

According to the results in Tables 5.5 and 5.6, students' overall writing performance was moderate in the pre-test ($M = 3.1$; $SD = 0.5$). After the intervention, students' writing improved ($M = 4.2$; $SD = 0.7$), reflecting a positive effect of the pedagogical intervention. The minimum and maximum scores also highlight this progression. In the pre-test, scores ranged from 1.9 to 3.6, while in the post-test, the range shifted upward to 2.5 to 4.9, demonstrating that even the lowest-performing students showed notable improvement. Inferential statistical analysis further confirmed this improvement. A paired-samples t-test yielded a statistically significant result ($t = -9.139$, $p < .001$, $df = 18$). Similarly, a Wilcoxon signed-rank test corroborated these findings ($z = -3.783$, $p < .001$), providing robust support for the positive impact of the interventions.

In terms of effect size, the results underscore the substantial impact of the micro-learning interventions. The t-test effect size was -2.097 ($SE = 0.390$), with a 95% confidence interval ranging from -2.902 to -1.273 , indicating a large effect. The Wilcoxon test effect size was similarly strong (-0.989 , $SE = 0.256$), with a confidence interval of -0.996 to -0.971 .

These results reflect meaningful improvements in students' writing skills, both overall and individually. The pre-test results suggested moderate proficiency, but the post-test scores highlight a marked increase in students' ability to produce higher-quality texts. The combination of descriptive and inferential statistics confirms the effectiveness of the micro-learning interventions in enhancing writing proficiency across the group.

5.3.2 Results of the analytical writing aspects

The analytical aspects of the pre-test and post-test writing tasks provide a detailed understanding of the specific areas in which students showed improvement. Table 5.7 presents the descriptive statistics for each analytical category, including headline, lead, body, tail, visuals, style, grammar, vocabulary, readability, and text length.

Table 5.7 Descriptive Statistics for Analytical Writing Aspects in Pre-Test and Post-Test

		Pre-test			Post-test		
Analytic aspect	<i>n</i>	M (SD)	Min	Max	M (SD)	Min	Max
Headline	19	1.6(0.997)	1.0	4.0	4.3 (0.479)	3.0	5.0

Lead	19	3.0 (0.678)	2.0	4.0	4.2 (0.648)	2.5	5.0
Body	19	2.9(0.629)	2.0	4.0	4.0 (1.099)	1.0	5.0
Tail	19	2.9(0.910)	1.0	4.5	3.9 (1.352)	1.0	5.0
Visuals	19	1.3(0.943)	1.0	4.0	4.3 (0.882)	1.0	5.0
Style	19	3.5(0.577)	2.0	4.0	4.2 (0.583)	3.0	5.0
Grammar	19	3.6(0.678)	2.0	4.5	4.1 (0.778)	2.0	5.0
Vocabulary	19	3.6(0.583)	2.0	4.5	4.2 (0.750)	2.0	5.0
Readability	19	3.6(0.880)	1.0	4.5	4.3 (0.850)	2.0	5.0
Text length	19	4.6(0.832)	2.0	5.0	4.6 (1.012)	2.0	5.0

As shown in Table 5.7, students improved in all aspects of the journalist genre, as seen in the post-test results. In the headline category, students showed remarkable improvement. The average score increased from 1.6 (SD = 0.997) in the pre-test to 4.3 (SD = 0.479) in the post-test. This indicates that students became more adept at crafting concise, engaging, and informative headlines that effectively reflected the content of their reports. Similarly, in the lead category, the average score rose from 3.0 (SD = 0.678) to 4.2 (SD = 0.648), demonstrating an enhanced ability to create compelling introductions that captured the reader's attention.

One of the most significant improvements was observed in the use of visuals, where the mean score increased from 1.3 (SD = 0.943) to 4.3 (SD = 0.882). This suggests that students gained a stronger understanding of how to integrate relevant images to complement their writing effectively, a skill that was previously underdeveloped. Similarly, the body and tail sections of the reports, which are crucial for presenting arguments and drawing conclusions, showed marked improvements. The average score for the body rose from 2.9 (SD = 0.629) to 4.0 (SD = 1.099), while the tail increased from 2.9 (SD = 0.910) to 3.9 (SD = 1.352).

Students also demonstrated progress in linguistic aspects such as grammar and vocabulary. The grammar score improved from 3.6 (SD = 0.678) in the pre-test to 4.1 (SD = 0.778) in the post-test, while vocabulary increased from 3.6 (SD = 0.583) to 4.2 (SD = 0.750). These results indicate a better command of sentence structure and word choice, though further refinement of advanced grammar may still be needed. In addition, students made strides in style, with scores increasing from 3.5 (SD = 0.577) to 4.2 (SD = 0.583), reflecting their ability to maintain a formal and academic tone suitable for journalistic writing.

The readability of students' texts also improved, with average scores rising from 3.6 (SD = 0.880) to 4.3 (SD = 0.850). This suggests that their writing became clearer and easier to follow, with a logical flow of ideas that enhanced overall coherence. Finally, the text length category remained consistent, with an average score of 4.6 in both tests. This indicates that students were consistently able to meet the required word count for their tasks, staying within the expected range.

The following are some samples of students' writing before and after the intervention (Table 5.8).

Table 5.8 *samples of students' writing before and after the intervention*

Student	Pre-test sample	Post-test sample
A	Cali, San Antonio dressed for the festival. If we go to speak about the most important places of the Cali, San Antonio is the most important place for the different aspects that there are. We go start for the history and what is in his soul, what is the identity of his culture. One of the most important important aspects, and they have a one part of his history is the architecture, we can see, the traditional architecture colonial. His monument most representative, but it was no until 1746 when the chapel began to be built. Now, in the differents details of this architecture, the festival it's coming with music. The typical house, now is the places of environment and as such as for the Andres Caicedo, the places was and source of inspiration for the writhe "que viva la música" now, the streets and the gardens are the living in the music. Another part important of the this place, is the community that, during this festival, they have of opportunity of the commerce, and the traditional art they are, in the streets in exhibition for the people wanted to meet this context of the frame of his streets and cultural, they can see of the differents aspects of the frame of San Antonio. Rotate and differents aspects, is the greatest place for the envolved the many aspects that make the identitie of Colombian and of the Cali. The people and his environment, they colors of happiness and the soul, that all in the frame of this place. The variety of aspects that we can find in this place, make to this place, the perfect places for recognize of identity of one cultural that is unic with and unic place. To be in this place, maybe, have and one aspect and maybe is and unknown part.	The vibrant Music Cartagena festival. The festival received tourists from different countries that enjoyed the music philharmonic and the different activities of Colombian culture.  Cartagena, April 10, 2022 if you think in colombia, it is a must see the rich culture that there is around of the differents regions, and, the region of caribbean they has a lot representatives essence of the people who are pintors of a beautiful environment. There is to remember that, in the past, the region of Cartagena lived in a time of blood. But now, these times, transform these pains into a big possibility to express the voices of happiness for the living in what now is an essence of Colombian people and cartagenas people. The classic music is a good form to see that the capital culture is more rich of what us think, the environment is the concentration of colors and happiness of the colombian people, it is for this reason that the tourist of different cities arrived a city, is an experience for the know about essence colombian. The festival music is an event of each year, where the most bands symphonies national and international bands, they are participants and this memorable event. The great orchestra masters give us and beautiful show of the classical music and contemporanean music with the essence of Colombia, rhythm of Colombia or caribbean sounds. there are many multicultural show of music, the master Santiago Moure tell us " this event is always best of times, the people, each band with give us spectacular notes and compositions, and each new compositions variations, always are one things most interesting and full us heart and passion of music." But it is not only of interest to Colombian people, the tourist from different countries arrived on this coast for a variety of reasons, music is a big reason. However, the things that motivated the tourists, like the environment of essence, are different from what they do know. Could be the reason for the festival Cartagena is a concentration of spectacular multiculturalism. Constantina, is an Italian tourist who visited and she enjoyed all things of the event, she tell us " the reasons are variety, but even loved colombia for the savor, for the gastronomy, but my
B	San Antonio is a neighborhood in Cali Valle del Cauca known for its culture and atmosphere. Its colorful streets are filled with restaurants, cafes, even you can find handcrafts, there you can find various gastronomy, the neighborhood contains variety restaurants and they offer traditional Colombian meals to international meals. You will be find everything, the coffee in the area are also popular places meeting, there you can enjoy a cop of coffee while you see and absorb the atmosphere. San Antonio is not only beautiful but also important for the culture because it has rich cultural heritage, for instance colonial architecture. The area is recognized among artists and musicians. The artists and musicians shows their entertainment skill and the creativity to do it, in addition San Antonio has a variety of culturales events in all year, including music festivals, dances performances and theatrical works San Antonio is a great place for the experience of authentic life caleño. The streets are filled with houses painted in bright colors. You will find people of all ages walking, enjoying the atmosphere and admiring the landscapes. There is always something happening in the streets of San Antonio such as art exhibitions or local markets. The visitors are welcome to join the different culture expressions. We have run into some residents and they've let us know their opinions about the event, one of them, Alberto Buendia, affirmed that "it's a great initiative for other people to visit our neighborhood, thus, increase significantly the touristic rate". On the other hand, we stumbled across Sonia Gutierrez, a well-known local for being one of the oldest residents of San Antonio, she shared with us her happiness and told us that «these sort of events are pivotal for cultural enrichment since most of the time people don't really appreciate the hours of hard work behind all the art, apart from that, this exhibition allows the foreigners to get away with a good impression of the entire city, in a certain way we're showing them that Cali is not all violence but also developing culture». In conclusion, San Antonio in Cali, Valle del Cauca, is a lively and colorful neighborhood famous for its Colombian food and culture. It is a place full of life where you can enjoy music, art and delicious typical food in addition the streets are full of life and a quiet atmosphere.	The carnival of Cartagena full of traditions and colors In the heart of Cartagena, there is a cultural celebration. This event commemorates Cartagena's diverse traditions such as music, dance and art. In the Bolivian department it is known for the kind and smiling people. There are several festivals, history and cultures such as international festival of music, film, friend and Independence day of Cartagena. Its atmosphere enchants anyone, the street has life with the music, dances and art, creating an atmosphere of joy and pleasure, besides this place offers a refuge of tranquility. In the past at the historical crafts fair of Cartagena, it was as charming as its people, where the history of the city begins with the rich traditions. A charming story about culture is "Coché Endemoniado", if you go, you will know its history. In an interview with a person who lives near the places said "During the colonial period the people saw horses on a person with flames and got lost in a strange street". This history that demonstrates the cultural diversity and their music is as diverse as their traditions.  Place where "El coche endemoniado" was known Festival international of music in Cartagena Experience a symphony of cultures at Cartagena's international music festival lovely, this festival has attracted renowned artists from ever world. Along the incredible landscape that Cartagena has, it makes music a pleasure to listen. Music evokes various feelings that cannot be described in simple words. They are transported on a journey of rhythm and melody, uniting people all over the world in a shared love for music. The festival international of music is so excellent for listeners that none is able to comment on something negative. Shakira in one of her interviews has commented "wow, Cartage evokes many happy memories for me. The international music festival in Cartagena is absolutely amazing! Enjoyed unique experiences. It had a mixture of exciting rhythms from all over the world in a truly magical environment". A truly quiet place to enjoy your days.

C	<i>"The most wonderful neighborhood; San Antonio"</i> The neighborhood "San Antonio " It is a great neighborhood located in the beautiful city of Cali, to the west,in the commune 3, in Colombia. Walking through the streets of San Antonio is very pleasant and fruitful, feeling the wind in the afternoon, the beauty of each of its houses, the friendly people and thousands of paintings on its walls. Its history is very interesting because this neighborhood was created around the XX century, then, first inhabitants arrived from the department of Nariño and Cauca, South of Colombia. The houses at that time were very beautifuls, and were created with "bahareque and techo de Zinc ". The neighborhood has almost 4000 inhabitants and its length is 120 km² at that moment. San Antonio aqueduct began to be built in 1915 and was completed in 1927 a great help for its habitants. Antonio is known for many things, one of which is the stadium that very known artists had several years ago. Santiago Velasco; Artist. Alberto Caballero; Boxer and the other people. One the most wonderful attractions of this neighborhood is the " Capilla De San Antonio" was created around the XVI century,this "Capilla" has 277 years of history. This Capilla is very wonderful, created with " barroco" founded by José de Alegría.If you are going to visit San Antonio you go to "La Calle del Arte" it is a large space, that serves as a stage for the presentation of plays, art exhibitions and musical presentations. Around this neighborhood there are many places, for example, the restaurant "El pargo Rojo " is a restaurant of typical food very delicious. "La Tregua Parrilla " is another restaurant with typical food: meat, and seafood. "Cocina" is a restaurant of traditional food,very delicious near a neighborhood in San Antonio. "Valle pacifico" Colombian Pacific Food Restaurant. "Bifes" Grilled Food Restaurant. "El Buen Alimento" Vegetarian Food Restaurant. "La Bohème" international, Mediterranean and Asian food restaurant One of the greatest traditions in San Antonio is its religion. During Holy Week, processions were held along the steep streets of the neighborhood, with saints, statues and images. This is very representative and this neighborhood is very religious. Then, for this neighborhood is Christmas, during the month of December the neighborhood celebrates the traditional Christmas novena between typical food days, in the " parque del acueducto" and they make a big "pesebre"	<i>"Salsa is the best Colombian musical rhythm and the people of Cartagena know it."</i> The Salsa festival in Cartagena is the most important festival in Colombia since 5 years ago.  City of Cartagena. Source: "los ángeles times newspaper" Cartagena is a city on the Caribbean coast in Colombia,with great popularity within the country, recognized for its different festivals, musicals, folklore and great concerts, its beautiful beaches, its beautiful streets decorated with endless colors, the people are friendly and fun. and of course for its great seafood. For 5 years, Cartagena has been the epicenter of one of the most wonderful, color, emblematic and joyful festivals in Colombia. "Festival salero" takes place every year from April 01 to the 07h of this month, in the neighborhood "Getsemani" Located in the most popular place in Cartagena. It is a very beautiful place, where art exhibitions, street dances, live bands, crafts, stores and boutiques are held with thousands of options and magnificence that you can see.  Neighborhood "Getsemani" Cartagena-Colombia. The productive sector of the city these days is much larger than usual, people sell typical food in the streets, there are sales of "cholados and lulada, empanadas, salchipapas" and a "cervecita" is never too much for this heat. Many people come to Cartagena to enjoy the hope of being able to enjoy this great festival, with their friends, family, relatives and these romantic partners, residents and mostly foreigners. This afternoon, Clarisa Ramos, 33 years old. A resident of Cartagena, talked to us about these festival and her experience. Clara said; "For 5 years, life has changed for us residents. Since the celebration of this festival in the city, everything has improved a little, people come to the city more often, there are
D	In the san Antonio neighborhood the caleños They enjoyed " the street to art". San antonio a nice place to live whit There are many green areas, in general the people are friendly and pleasant, San Antonio, with culture, tradition and gastronomic the streets of the San Antonio neighborhood is a space to share with the family. The San Antonio neighborhood is a unique example of living heritage, José Wealth is not límites to its Value as an urban landscape but lies, above all, in the daily expression of its inhabitants custodians of the oral traditions that gave identity to the city, san Antonio Known as "Cali Viejo" it is considered one of the most traditional, made up of elevated streets and large houses with a colonial structure. it is impossible not to recognize the mural that from a distance looks like a rainbow. kaleidoscope adorned with a pair of birds. A work of art in Cali, the result of the rise of urban graffiti. San Antonio is definitely a neighborhood that cannot be lost in time, nor blurred from its heritage essence to become a commercial area that does away with heritage.	CARTAGENA THREW THE HOUSE OUT OF THE WINDOW WITH ITS PARTIES. This weekend Cartagena had a great party with special artists to celebrate the opening of the "CENTRO DE CULTURA LITERARIA" library.  Now young people can come to read and enjoy reading at any time of the day. Last Friday, April 19, 2024, an important inauguration of the new library "center of literary culture" was held in the west of the city, where many young people and adults will have the opportunity to have a space where they can read and enjoy an environment full of nature. The young people and their families feel very grateful and excited about this inauguration, because for some young people it would be of great benefit to have this library, mother Rebeca said "I am very excited that they hold this type of events and that they carry out this inauguration of the library. library, there were rumors that they were going to have computer rooms since for many of these young people they do not have internet services in their homes or they do not have a computer". The young people and their families feel very grateful and excited about this inauguration, because for some young people it would be of great benefit to have this library, mother Rebeca said "I am very excited that they hold this type of events and that they carry out this inauguration of the library. library, there were rumors that they were going to have computer rooms since for many of these young people they do not have internet services in their homes or they do not have a computeOther mothers said, Martha, "it's been a long time since we had a library. The last one was when I was nine years old and now I'm forty-two years old. It's wonderful that they're building a library

5.4 Challenges and benefits of micro-learning in enhancing writing

Data about the benefits and challenges of implementing micro-learning was gathered through the researcher's observations and students' perceptions from the surveys.

5.4.1 Benefits of micro-learning

5.4.1.1 Writing Features

Analysis of observations and student responses revealed significant progress in key aspects of writing characteristics, particularly in the organization, cohesion, and clarity of texts.

In terms of organization, the students were able to structure their texts more efficiently, identifying and correctly using the essential parts of a newspaper article, such as the headline, the subtitle and the body of the text. According to my observations documented in the journal, *“muchos estudiantes identificaron correctamente las partes clave como el titular, subtítulo y cuerpo, demostrando un mejor entendimiento de la estructura periodística.”* In addition, students valued these activities for helping them understand the importance of planning their writing, as one of them mentioned: *“Siento que fue realmente útil en el sentido de ayudarme a concientizar sobre la organización de lo que se va a escribir. (S2)”*

As to cohesion and coherence, students showed progress in connecting ideas logically and fluidly within their texts. This was evident in their responses and performance on tasks such as article design and fanzine development. One student commented: *“Ya tenía un conocimiento breve sobre cómo escribir, pero eso no cambia el hecho de que me ayudaron a tener mejor coherencia, cohesión y vocabulario. (S13)”*

Likewise, students highlighted their ability to adapt the content to the communicative objectives. A key aspect identified was their focus on taking the reader into account when writing, which allowed them to organize ideas in a way that made them clear and understandable. This improvement was recognized in both group and individual activities, highlighting the positive impact of micro-learning on these writing characteristics. Finally, these strengthened writing characteristics were not only reflected in the activities and assignments, but also in the final comments on their performance. *“En definitiva, mis habilidades de escritura mejoraron, (S9)”* highlighted one student, reaffirming the effectiveness of the strategies implemented.

As part of the final survey, students were asked to evaluate the impact of Telegram content and micro-learning strategies on their journalistic writing skills. The results, summarized in Table 5.9, provide insights into the areas of impact, the benefits perceived by students, and their overall assessment of the impact of micro-learning in improving their writing abilities.

Table 5.9 Impact of Telegram content in Writing

Impact of Telegram Content on Journalistic Article Writing	n	%
● In the content and selection of relevant topics	5	22,7%
● In the formality and style of writing	3	13,6%
● In the structure and organization of the article	13	59,1%
● On the correct use of citations and references	1	4,5%
● I do not consider that it has had a significant impact	0	0%
Benefits of micro-learning in Writing	n	%
● Increased retention of key concepts by receiving concise information	7	31,8%
● Being able to review relevant content at any time and any place	7	31,8%
● Diversity of formats (videos, infographics, etc.) facilitated the learning process.	7	31,8%
● I did not perceive significant benefits of micro-learning for writing	1	4,5%
Impact of micro-learning in Writing	n	%
● Yes, it was definitely very helpful and effective in improving my skills.	11	50%
● Partially useful, it helped me in some aspects but not in others.	10	45,5%
● No, I did not consider it an effective way to improve writing.	0	0%
● I am not sure; I did not notice a clear impact on my skills.	1	4,5%

Table 5.9 shows that Telegram content was beneficial in helping students improve the structure and organization of their articles, with 59.1% of participants reporting significant progress in this area. This result highlights the role of micro-learning in simplifying complex writing tasks and emphasizing key structural elements such as headlines, subheadings, and logical progression. Additionally, 22.7% of students observed improvements in the content and selection of relevant topics, which suggests that Telegram content facilitated their ability to focus on meaningful themes. However, the impact on formality and style (13.6%) and the correct use of citations and references (4.5%) was less pronounced, indicating areas for potential enhancement in future interventions.

In terms of the benefits of micro-learning, students valued three aspects equally: increased retention of key concepts, accessibility of content anytime and anywhere, and the diversity of formats (31.8% each). These findings underscore the adaptability and practicality of micro-learning strategies, as they allowed students to engage with content at their own pace and through varied formats such as videos and

infographics. However, no students identified additional motivation as a significant benefit, which may suggest that while micro-learning supports skill development, it does not necessarily boost enthusiasm for writing tasks.

Finally, the students' overall evaluation of the impact of micro-learning in improving writing skills was very positive. Half of the participants (50%) found it very effective, while 45.5% considered it partially useful, reflecting its role in addressing some, but not all, aspects of writing development. Only one participant (4.5%) expressed uncertainty about its impact, and no students deemed it ineffective, further confirming its general success in enhancing writing performance.

The content aspect of students' writing showed significant improvements, particularly in the ability to integrate relevant ideas and support the central message of their texts. This was evidenced both in the observations made during the activities and in the opinions expressed by the students. A highlight was their ability to identify and develop meaningful themes related to their journalistic articles. For example, one student commented: *"Fue útil en cuanto a entender algunos aspectos de la creación de un artículo periodístico (S8)."* In addition, during group activities, students demonstrated that they were able to organize content in a coherent manner, addressing issues of interest and maintaining a clear focus. According to the journal: *"La mayoría de los grupos seleccionaron temas relevantes y lograron sustentar sus ideas con ejemplos concretos. (S7)"*

Another important development was the ability to connect content to the reader's needs. One student mentioned: *"Siento que fue realmente útil en el sentido de ayudarme a tomar en cuenta al lector y redactar de forma que sea fácil comprender (S11)."* This reflects how the micro-learning activities helped students become more aware of the communicative purpose of their texts and adjust the content for greater impact.

Likewise, the development of tasks such as the fanzine allowed students to explore how textual content is integrated with visual elements to communicate messages effectively. During these activities, students were observed carefully selecting ideas that would support the purpose of their writing. For example, one student indicated: *"La estructura de la noticia fue clara y me ayudó a saber qué incluir en mi artículo. (S3)".* Figure 5.1 shows samples of a Fazine project in which there is evidence of content development.

Figure 5.1 Samples of a Fanzine project - content development





The micro-learning approach contributed to improving the students' ability to develop relevant, organized and targeted content for the reader's needs. These skills not only strengthened their performance in academic tasks but also prepared them for future communicative situations in more demanding contexts. Additionally, it had a positive impact on the development of students' grammatical skills. The activities designed allowed students to identify and correct common errors, improving the accuracy and clarity of their texts.

An important benefit was the students' ability to apply grammatical structures more confidently in their writing. This was reflected in comments such as: *“Me sirvió para corregir errores constantes en mi escritura, especialmente en la redacción de artículos o noticias (S4).”* In addition, group activities encouraged collaborative review, which allowed students to learn from their peers and strengthen their understanding of grammar rules. The following are some samples of the lesson plans and activities where micro-learning was enacted (Table 5.10).

Table 5.10 *Samples of the lesson plans and activities*

Activity 1: “Journalism is...”

- Students will present what they started last class regarding what journalism is for them. Also, students are invited to share ideas about different aspects of journalism, such as journalistic genres (news, reports, interviews, chronicles, etc.), topics (politics, sports, culture, science, etc.), media (print, radio, television, digital media, social networks, etc.), journalistic ethics, technology and its impact on journalism, among others.

Activity 2: Features discussion

- Students will be asked about what characteristics they think a news article should have. For example, that it must be objective, current, relevant, unbiased, with genre variety. Also, there will be a discussion about the functions that news articles can have, for example: helping the reader reach their own interpretation, fostering dialogue, as well as the impact it has on shaping the reader's opinion.

Activity 3: Exploratory activity: analysis of journalistic texts ■ News recognition

- In groups, students are given examples of various journalistic texts. They analyze the type of text, topic, sources, journalistic techniques and express opinions taking into account some questions which will elicit some outcomes related to the features we talked about. Encourages critical analysis and comprehension of journalistic texts.

Teacher note: They will be given clear instructions on what to observe, compare and analyze.

Activity 1: Warm-up

Students will be asked how to identify the resources that news stories use to validate their news. They will be asked to give examples of the news they analyzed in groups and what resources they used. In this part, emphasis will be placed on the importance of using reliable sources.

Activity 2: Word Matching Game **Terms**

Students will be given small pieces of paper. On these pieces of paper some will have a definition and others a term, so the activity consists of the students having to search among their classmates which terms and definitions they combine. The words are related to the structure of newspapers in order to introduce this vocabulary.

Activity 3: News Structure **News Structure**

In pairs students will analyze a news item that will be given to them in which they will have to use Google Docs comments to identify the parts of the news item with the help of the terms previously introduced in the word matching activity. The analysis will exhibit comprehension of journalistic concepts and critical thinking skills. Students will be prepared to share findings in a whole-class discussion.

Activity 4: Discussion

Some groups will be asked to share a short summary of the news story they read and share their headlines and subheadings. The class will give their feedback and if they can think of a better title for the news item. Afterwards they will be shown the actual headline and images that the news story had and see how accurate it was.

Activity 2: Listening comprehension**Pre-listening**

- I will ask for your opinions about the video reports, if you like them better, if you find them more complete, if the information is more engaging, if the videos, images and interviews make it much more interesting.
- Afterwards, I will ask them about what they know about the carnival of Barranquilla, if any of them have been there, if they know about the history and what it represents.

While-listening **Listening** **Barranquilla carnival celebrates Colombian folklore**

- SS will be given a copy of the questionnaire created for listening practice.
- Then they will be shown the title of the video and some students will be asked to tell me what they think the news is about.
- The questions will be read with the students present in the questionnaire, and vocabulary doubts will be clarified.
- The video will be played 3 times to confirm students' answers.

Post-listening

- As a whole, at the end of the listening, the questions of the questionnaire will be answered.
- Then they will be asked questions about the body of the previous news item presented, what they think is the objective of the body of the news item or what strategies they find to identify the body of a news item.

Activity 1: Creation of the zine

- They will be introduced to the fanzine, its history and why it is so important to use this format to share events, news or opinions.
- Each student will be given a sheet of paper to begin folding the fanzine. A video will be shown and the teacher will help them step by step in the folding process.
- Afterwards, they will be shown examples of fanzines so that they have an idea of the final product that is expected. They will be told that they will have to place in the fanzine the news that they are writing in groups with images that are attractive to the readers, either taken from the Internet or taken by themselves.

Activity 2: Design

- With the resource that was given to them in the last activity, the groups will get together and begin to design their zines. Have them organize how they placed the text, also the images, the colors they will use, etc.
- Within this design the teacher will be participating in the group discussions and giving ideas on how they can carry it out.
- At the end of the class the students will be told that the [fanzine template in canva](#) will be shared with them so that they can start working on their designs and the teacher can give them feedback on their designs.

Personalized feedback was another key aspect that contributed to progress. According to observations, students showed marked improvement in the use of verb tenses and complex structures after receiving specific feedback on their texts. This was evidenced in the post-test, where most students successfully applied the previous recommendations. One student expressed: “*Al momento de hacer el post-test, tenía muchas cosas claras que me permitieron hacerlo bien* (S17).”

The following are some samples of the personalized feedback given to students (Table 5.11).

Table 5.11 *Samples of the personalized feedback to students*

Student	Personalized feedback sample
A	 Universidad del Valle ZINE HEADLINE: "The issue of the Political Spectrum in public universities" SUBHEADLINE: A problem that affects the social and academic environment. THE LEAD: During the course of Colombian history, the concept of politics has played an important role in society. However, after the recent victory of the left-wing in the presidential elections, it has become clear that the political problem has not been solved dismissed, but rather increased. indeed, it has been increased. The political differences continue, and prejudices against the students who are in public universities, in particular, Universidad del Valle, more specifically, the University del Valle as well. In this article, we will explore how and why these tensions persist, as well as the parties involved in this complex problem. how and why, who involved (paragraph 1). THE BODY: Paragraph 1: The students of public universities in Colombia, specially of Universidad del Valle, since several years, are facing some issues due to the political spectrum in this country. Students are harmed with the bad decisions of the government or the misapplication of certain laws like the matricula 0 law. It's kind of hard to get the government benefits and is really easy to lose them, so that's really unfair, because there are a lot of students that need help with university expenses as the transport, the implements of the subjects, material of the teachers, the university tuition and so on. Therefore, the students are destined to fight for their rights and for a fairer treatment, all these things through protests and marches. And the people who don't understand the situation of these students, only care about criticizing them. It's a vicious cycle, the government doesn't help the public universities so, the students have to do protests and the people criticize that with prejudices, insults and contempt. Paragraph 2 It has been a topic of debate in various political and social contexts, the relationship between the public university and the political ideologies of the right and left is that they generate an impact even on the institution and the students, it is a complex controversy. -In general, public universities are spaces where critical thinking is promoted, and reflection on different ideological perspectives is encouraged. From a right-wing position, particularly in the Colombian context specially in political contexts such as Colombia, public universities are often seen as places where left-wing ideas predominate and criticism of the established system is promoted. This may concern worry.  SANTIAGO ARIAS GRAJALEZ 12 mar 2024 It is important that the headline accurately reflects the content of the news so that readers have a clear idea of what to expect when reading it. Although the title "The Political Spectrum Issue in Public Universities" is clear and concise, it could be helpful to add some detail that provides a more specific clue about the focus of the news.  SANTIAGO ARIAS GRAJALEZ 12 mar 2024 For example, if the news focuses on biases related to left-wing political affiliation in public universities, you could adjust the headline to reflect this more accurately.  SANTIAGO ARIAS GRAJALEZ 12 mar 2024 In your case it is better to write the headline when you have already written the news because it is still very confusing for the reader what the news is about just reading the headline.
B	day.... " Due to the constant absences of this type, the administrators have taken a solution of sorts: - "... if the student takes the key and leaves the briefcase here, that is placed a sanction in the special services area that already after a certain time a fine or suspension of the use of the library is placed.... " - We must have a little more responsibility, value the spaces that the university gives us and have more empathy for others. Comment: I am pleased to observe the progress and the choice of such an interesting topic, which many overlook. As I read the article, I recognize a great idea in development. However, I would like to point out that, although student dishonesty is highlighted, the discussion seems to primarily focus on the misuse of the library by some students. For the final submission, I urge you to delve deeper into this main idea and clarify how it relates to student dishonesty. Regarding the interviews, it is essential to present different viewpoints to avoid biases. suggest adding an interview with a student who uses the library to obtain their perspective on the issue and their opinion about it. Furthermore, I recommend better organizing the interviews, as the lack of structure makes it difficult to understand the topic being addressed. After each quote, it would be beneficial to provide analysis or context that guides the reader to the next information being presented. Sugerencia aceptada  SANTIAGO ARIAS GRAJALEZ 15 mar 2024 Reemplazar: "leave" por "left" Sugerencia aceptada  SANTIAGO ARIAS GRAJALEZ 15 mar 2024 Reemplazar: "Due to this need" por "In response to this necessity" Sugerencia aceptada  SANTIAGO ARIAS GRAJALEZ 15 mar 2024 Reemplazar: "T" por "Additionally," Añadir: "I"

C

four paragraphs. (These paragraphs are not in order, so it is up to you which information is most important. Remember that the news is not in chronological order but rather in order of importance.)

Paragraph 1

Paragraph 2

Paragraph 3



SANTIAGO ARIAS GRAJALEZ

12 mar 2024

Formato: resaltado



SANTIAGO ARIAS GRAJALEZ

12 mar 2024

Investigates and provides specific data on financial irregularities that students have experienced in relation to SISBEN. This could include figures on the number of students affected, the type of irregularities found and how these directly affect students in terms of access to education.



SANTIAGO ARIAS GRAJALEZ

12 mar 2024

Interview students from Universidad del Valle to obtain their experiences and opinions on the financial problems they face. Ask how these difficulties affect their academic and personal lives, and what actions they think should be taken to address the problem.



SANTIAGO ARIAS GRAJALEZ

12 mar 2024

Seek feedback from university officials about the financial difficulties students are facing and the steps the university is taking to address the problem. Ask what resources are available to help

Comment: I'm glad to see the idea taking shape and that you're addressing a less-discussed topic. However, I have some suggestions that could help improve your work.

Firstly, I would recommend improving the tone of the news piece. Avoid contractions and the use of informal language; there's always a more formal way to express yourself. Look for synonyms that give a more professional tone to the article.

Secondly, the news piece needs further development. I don't find opinions from people about the issue at hand, beyond the example of Juan Esteban, who was wrongly located. It would be beneficial to include other perspectives and opinions on the problem. In the previous feedback, I provided some ideas on possible questions that could be asked to obtain these opinions.

Lastly, don't forget to add the 'tail' where you make a call to action, summarize, or add some less relevant but interesting information. This can help round off the article and leave a lasting impression on readers.

D	This restaurant is equipped with over 200 lunches to serve all its students, but this has clearly been not enough. As the problems in central continue without any visible change, the long lines follow to be a lingering difficulty as this quantity of meals being prepared is too small to cover over such a big number of individuals needing to have lunch. Tail: As a summary, the Univalle's population is facing a severe problem related to its principal restaurant. Poor infrastructure, insufficient and inadequate "solutions" and too many users are some of the factors that are forged or setting a time bomb that threatens the integrity of the community at the university. Those factors result in long lines that often have to be skipped, which in turn triggers violent situations between restaurant users. Although this is a crucial factor for improving at the university, it has been disregarded for many years, creating the necessary conditions for presenting violent arguments and disputes. Guillermo Murillo, who is the director of Univalle, has said that he is expecting to extend the restaurant, but, at the moment he has set up a new restaurant in the language building, nevertheless, it has been insufficient and it has not been a real solution. It's probable that it will continue in the same way until the time bomb explodes. The Univalluna community will continue to demand real and timely options or solutions to improve the service provided by the restaurant. Comment: I am highly satisfied with the information you have gathered; you have shown great diligence. The only areas I believe require refinement for the final submission are better organization of paragraphs in terms of their importance. While all the information is valuable, it should be arranged from most to least important. Additionally, your article appears lengthy; there are sections that could be omitted or summarized, particularly the interviews. Focus on extracting the key points from the interviews and paraphrasing the remaining content. By the way, for the final delivery everything must be clean as if it were a real article. Good job!!  SANTIAGO ARIAS GRAJALEZ 15 mar 2024 Eliminar: "4th Paragraph:"  SANTIAGO ARIAS GRAJALEZ 15 mar 2024 Sugerencia aceptada In this paragraph you make a very good summary taking into account everything you talked about in the article, however remember that the objective is to reinforce the main idea or conclusion. Beyond just summarizing, the tail emphasizes the message, point of view or central conclusion that the article sought to convey to the reader.
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Finally, the micro-learning activities provided constant practice in authentic contexts, which facilitated the integration of grammar into their texts in a functional way. This exposure helped students not only improve their accuracy but also gain confidence in using grammatical structures in their written productions.

5.4.1.2 Useful micro-learning activities and materials

The micro-learning activities and materials implemented during the interventions played a key role in the development of students' writing skills. These tools, designed to be brief, interactive and accessible, facilitated autonomous learning and effectively reinforced key concepts. Finally, the micro-learning activities provided constant practice in authentic contexts, which facilitated the integration of grammar into their texts in a functional way. This exposure helped students not only improve their accuracy but also gain confidence in using grammatical structures in their written productions.

One of the most outstanding materials were the resources shared through Telegram. According to the interactions analyzed, students found messages related to news structure especially useful. For example, an introductory text on the topic achieved 92 views, while a TikTok and an explanatory infographic achieved

89 views each. Students mentioned that these materials helped them understand key concepts and apply them in their writing. As one of them commented: “*Siento que fue realmente útil en el sentido de ayudarme a organizar lo que voy a escribir y redactar de forma que sea fácil comprender (S12).*”

Images also played an important role. Materials such as illustrations on headline construction (85 views) and article structural division (73 views) complemented learning visually, which was key for students with graphic learning preferences. These resources facilitated information retention and encouraged a hands-on approach to writing tasks. The following group of images (Figure 5.2) shows samples of the Telegram activities that supported students’ learning.

Figure 5.2 Samples of Telegram activities



The design of the fanzine, as already shown, was another significant activity that the students highly valued. This dynamic allows combining creativity and writing in a single project, helping students apply

their knowledge in a tangible and meaningful format. Although it had less relevance in terms of visualizations, the fanzine was mentioned by students as a valuable component due to its reflective and collaborative approach.

In conclusion, the micro-learning activities and materials not only facilitated the understanding of writing concepts but also promoted student motivation and engagement. The combination of visual, interactive and hands-on resources maximized interest and participation, contributing to the success of the pedagogical interventions.

5.4.1.3 *Students' Perceptions of both Telegram and Micro-learning*

As part of the final survey, students were asked about their perceptions of the accessibility and effectiveness of Telegram and micro-learning strategies. Their responses provide valuable insights into how these tools influenced their learning experience and writing skill development. Table 5.12 summarizes the key findings.

Table 5.12 Impact of Telegram and micro-learning

Accessibility and Comprehension of Content in Telegram	n	%
• Very accessible and understandable in all formats; easy to interact with.	17	77,3%
• Accessible and understandable in general, but I had some difficulties with certain formats.	5	22,7%
• Most of the formats are not very accessible and difficult to understand.	0	0%
Preference for Incorporating Micro-learning in Classes	n	%
• Yes, I would like to see more use of micro-learning in class.	11	50%
• Yes, but only as a complement to the regular classes, not as the only method.	10	45,5%
• No, I prefer classes without micro-learning content.	1	4,5%
Importance of Micro-learning in Class vs. Outside the Classroom	n	%
• Within the classroom, to divide the topics into more digestible portions	2	9,1%
• Outside of class, as a review and reinforcement of what has been learned.	12	54,5%
• Equally important both in and out of the classroom	8	36,4%
• I don't consider it important either in or out of class.	0	0%
Impact of Micro-learning on Classroom Interest	n	%
• Yes, I have found the classes more interesting with micro-learning.	10	45,5%
• On some occasions I have found it more interesting, but on others I have not.	11	50%

● No, I have not noticed that micro-learning has increased interest in the classes.	1	4,5%
● I am not sure; I have not paid attention to the impact on the interest of the classes.	0	0%
Telegram Content Complement to Face-to-Face Classes	n	%
● Yes, the content complemented very well the topics covered in class.	19	86,4%
● Partially, some of the content was useful but some was less so	2	9,1%
● No, the content did not satisfactorily complement what was seen in class.	1	4,5%
● I did not attend the face-to-face classes, so I cannot evaluate if the content complemented them.	0	0%
Suitability of Telegram for Sharing Learning Content	n	%
● Yes, Telegram was an excellent choice for sharing learning content.	9	40,9%
● No, I didn't think it was a good choice. I would have preferred another medium	9	40,9%
● I am indifferent to the medium used, the important thing is the content.	4	18,2%
Challenges of Micro-learning in Journalistic Article Writing	n	%
● The brevity of the contents made it difficult to go deeper into some topics.	3	13,6%
● The audiovisual format in some cases was not the most appropriate.	0	0%
● Lack of real-time interaction/feedback	6	27,3%
● The disconnection of the contents with the face-to-face classes.	0	0%
● No aspect, all micro-learning favored the process.	13	59,1%

Table 5.12 presents the results of the final survey, which sought to evaluate the accessibility, comprehension, and overall impact of Telegram and micro-learning tools from the students' perspectives. Regarding the accessibility and comprehension of Telegram content, 77.3% of students found the materials "very accessible and understandable in all formats," indicating a positive reception of the shared resources. A smaller percentage (22.7%) encountered some difficulties with certain formats, but no students reported that the content was inaccessible or difficult to engage with.

When asked about their preference for incorporating micro-learning into classes, half of the students (50%) expressed a desire for more use of micro-learning in the classroom. Another 45.5% were in favor of using it as a complement to traditional teaching methods. Only 4.5% preferred classes without any micro-learning content, showing a generally positive attitude toward this approach.

In terms of micro-learning's importance, 54.5% of students believed it was more beneficial as a review and reinforcement tool outside the classroom, while 36.4% considered it equally important both in

and outside the classroom. A small percentage (9.1%) saw micro-learning as a valuable method for dividing topics into more digestible portions within class time.

Regarding classroom interest, 45.5% of students felt that micro-learning made the classes more engaging, with 50% noting occasional interest but not consistently. Only 4.5% did not notice any impact on their engagement. Finally, the majority of students (86.4%) agreed that the content shared via Telegram complemented what was covered in face-to-face classes, indicating that Telegram was a useful tool for reinforcing the topics discussed in class. However, 40.9% of students expressed mixed feelings about Telegram as a medium for sharing content, indicating that while some found it suitable, others preferred alternative methods.

5.4.2 Challenges of micro-learning

5.4.2.1 Writing features

Students faced several challenges related to fundamental writing features, particularly coherence, cohesion, and the organization of ideas. One of the main difficulties was linking sentences and paragraphs fluidly, which negatively impacted the clarity and readability of their texts. This issue was especially evident during the pre-test, when several students expressed difficulties in "*understanding the proper sequence in writing the article*" (Researcher's journal).

Another frequent challenge was the lack of a defined structure in their texts. Despite explanations and practical exercises, some students struggled to identify and correctly apply the basic elements of a well-organized text, such as clear introductions, logical idea development, and solid conclusions. As a result, their writing often appeared disorganized and failed to communicate their intended messages effectively.

The absence of textual cohesion was also evident in multiple tasks. Students frequently misused or inconsistently applied linking devices, which disrupted the flow between ideas and the overall fluency of their writing. This was identified as a recurring area for improvement during feedback sessions, where students acknowledged that "*it was difficult to connect sentences to make the article meaningful*" (Researcher's journal). Furthermore, several students relied on less effective strategies, such as copying structures or vocabulary directly from provided examples. This approach limited the development of their creativity and personal style, making their texts less reflective of critical thinking or originality. See the results of students' perceptions of the challenges in Table 5.13.

Table 5.13 Challenges of Micro-learning

Challenges of Micro-learning in Journalistic Article Writing	n	%
● The brevity of the contents made it difficult to go deeper into some topics.	3	13,6%
● The audiovisual format in some cases was not the most appropriate.	0	0%
● Lack of real-time interaction/feedback	6	27,3%
● The disconnection of the contents with the face-to-face classes.	0	0%
● No aspect, all micro-learning favored the process.	13	59,1%

Table 5.13 shows the challenges perceived when using micro-learning in the writing of journalistic articles. Most students (59%) did not report any challenges with the use of this methodology, whereas others mentioned that the lack of real-life interaction and the brevity of the content made it difficult to delve deeper into certain topics.

Challenges related to content were a recurrent theme among students, as evidenced by their feedback, classroom observations, and my reflections as a researcher. While the materials were designed to be practical and accessible, students encountered several issues that affected their learning experience and progress in English writing. One of the main challenges was the perceived insufficiency of the content provided. Some students felt that the resources were too brief or basic compared to the complexity of writing in a second language. For instance, one student remarked that the materials were "*muy breve para el grado de dificultad de la escritura de textos en otro idioma* (S1)." This highlighted a gap between the scope of the resources and the depth of information students felt was necessary to improve their skills. Additionally, many students expressed difficulties in fully understanding some of the concepts due to the conciseness of the materials. Comments like "*a veces hay cosas que no podía entender, pero no había más información sobre el tema* (S2)" illustrate how the lack of extended explanations left some students feeling uncertain about how to apply what they had learned.

Another significant issue was the absence of real-time feedback during the interventions. As one student noted, "*Hubiera sido bueno la retroalimentación en tiempo real* (S5)" emphasizing the importance of immediate clarification to prevent lingering doubts from negatively impacting their writing process. This lack of immediate support was also evident in classroom observations, where unresolved questions during activities seemed to undermine students' confidence in their writing.

Organizing ideas and maintaining coherence in their texts also proved to be a major hurdle for many students. This challenge was evident both in their comments, such as those shared informally after sessions, where they described difficulties "*especialmente relacionadas con la estructura y la organización del texto* (S7)" and in the drafts they submitted, which frequently displayed issues with paragraph structure and logical flow. Furthermore, the varying levels of English proficiency within the group exacerbated these difficulties. Some students reported feeling left behind because their language skills were not as advanced as those of their peers, with one specifically stating, "*no me sentí bien porque mi nivel de inglés es un poco más bajo que el de los demás y se me dificultó mucho*. (S13)" This highlighted the need for materials that could accommodate a wider range of proficiency levels to ensure that all students could engage with the content effectively.

In grammar, students encountered several challenges that were consistently reflected in their feedback and the observations documented throughout the intervention process. Despite targeted efforts to integrate grammar-focused activities into the micro-learning framework, issues related to understanding and applying grammatical concepts persisted, impacting their ability to produce accurate and coherent texts in English. A recurring theme was the struggle with basic grammatical structures. Several students expressed that their limited foundation in grammar posed significant difficulties when attempting to construct sentences. One student noted, "*me parece pertinente enseñar aspectos de gramática y vocabulario, ya que pueden ser afectos que perjudiquen al momento de escribir un artículo*. (S2)" This observation resonated with classroom reflections, where I noticed frequent errors in verb conjugation, sentence agreement, and word order during their writing tasks. These challenges often required additional clarification and corrections during feedback sessions, further highlighting the gaps in their grammatical knowledge.

Another issue was the inconsistent application of grammar rules. While some students demonstrated an understanding of specific rules in isolated exercises, they struggled to consistently apply these in more complex writing contexts. For instance, even after explicit instruction and practice, common mistakes in subject-verb agreement and the use of tenses continued to appear in their drafts. This inconsistency suggested a need for reinforcement and additional practice in real-world writing scenarios to help students internalize grammatical principles.

Students also expressed difficulties in balancing grammar with other writing elements, such as coherence and style. As one participant commented, "*ya tenía un conocimiento breve sobre cómo escribir lo que se requería, pero eso no cambia el hecho de que me ayudaran a tener mejor coherencia, cohesión y vocabulario*. (S18)" This struggle to integrate grammatical accuracy with the broader demands of writing underscored the complexity of developing comprehensive language skills. It also highlighted the importance

of designing activities that address grammar in the context of authentic writing tasks, rather than treating it as an isolated component.

Moreover, the disparity in students' prior knowledge of grammar created an additional layer of complexity. Those with stronger grammatical foundations were often able to progress more quickly, while others needed more support to grasp basic concepts. This discrepancy was particularly evident in group activities, where varying levels of proficiency sometimes hindered collaborative efforts. My observations confirmed that additional scaffolding and differentiated instruction were necessary to support students at different stages of grammatical competence.

5.4.2.2 *Not-Useful micro-learning activities and materials*

Some activities and materials were perceived by students as not particularly useful or effective in supporting their learning process. These observations were consistently reflected in their feedback and my own reflections during the intervention. While the micro-learning approach was designed to be engaging and accessible, some activities and resources failed to meet the students' expectations or address their specific needs. One of the most common concerns was the perceived superficiality of certain materials. As one student remarked, *"Sometimes there are things that I couldn't get to understand, but there is not more information about the topic, cause it was short articles or only images."* This sentiment was echoed by others who felt that the brevity of some resources did not provide sufficient depth to tackle the complexities of writing in English. While the intention behind the micro-learning design was to break down content into manageable portions, this approach occasionally left students wanting more comprehensive explanations or examples to fully grasp the concepts.

Another issue raised was the limited engagement or practicality of certain activities. For instance, some students found it challenging to relate specific micro-learning tasks to their broader writing objectives. This disconnect diminished their motivation and reduced the perceived value of the activities. One student expressed, *"Hubiera sido bueno la retroalimentación en tiempo real (S4)"* suggesting that the lack of immediate interaction or guidance during some activities made it difficult for them to apply what they were learning effectively. Similarly, others noted that some materials lacked relevance to their specific writing challenges, leading to a sense of frustration or disengagement.

Additionally, the use of certain formats, such as short Telegram messages or minimalistic visuals, was met with mixed reactions. While these formats were intended to make the content more accessible and convenient, some students felt that they were not always conducive to deeper learning. For example, one participant commented that *"es un contenido muy breve para el grado de dificultad de la escritura de textos en otro idioma,"* emphasizing the need for more robust resources to support their skill development.

From my perspective as a researcher, these observations highlighted a key challenge in the micro-learning approach: finding the right balance between simplicity and substance. While concise materials can be effective for initial engagement, they may fall short in addressing more complex or nuanced topics, especially in the context of language learning. Furthermore, the lack of opportunities for students to interact with the material in a dynamic or hands-on way reduced its overall impact.

5.5 Concluding remarks

The findings of this study highlight the multifaceted nature of integrating micro-learning strategies to enhance the English writing skills of pre-service language teachers. The interventions revealed significant improvements in key aspects of writing, such as organization, cohesion, and grammar, as well as an increased awareness of communicative purposes. However, the process also illuminated specific challenges that must be addressed in future applications.

One of the most notable achievements was the positive impact on students' writing features, as they demonstrated a clearer understanding of text structures and improved their ability to connect ideas logically. Similarly, their use of grammar became more accurate, and they showed progress in applying grammatical concepts in authentic contexts. The incorporation of varied micro-learning materials, including videos, infographics, and interactive activities, contributed significantly to these improvements, providing accessible and engaging resources that supported autonomous learning.

Despite these advancements, the findings also pointed to areas requiring further refinement. Students encountered challenges related to the brevity of some materials, which limited their ability to explore complex topics in depth. Additionally, the lack of real-time feedback and the inconsistent application of grammar rules were recurring issues that hindered their learning process. These challenges underscore the need for a more balanced approach that combines concise, accessible content with opportunities for deeper engagement and immediate interaction.

The study also highlighted the importance of addressing the diverse proficiency levels within the group. Tailoring interventions to accommodate varying levels of prior knowledge and writing experience emerged as a critical factor for ensuring equitable and effective learning outcomes.

In conclusion, while the micro-learning interventions proved effective in fostering key writing skills and promoting engagement among pre-service EFL teachers, their implementation requires careful planning and adaptation. By addressing the challenges identified and building on the successes achieved, future initiatives can optimize the potential of micro-learning to support the development of writing skills in language education contexts. This study contributes valuable insights for educators and researchers seeking to integrate innovative pedagogical approaches into the teaching of English writing.

Chapter 6 Discussion

6.1 Chapter overview

In this chapter, I discuss the findings of the study in relation to the research questions, focusing on pre-service EFL teachers' knowledge of micro-learning, their writing performance before and after the intervention, and the benefits and challenges of implementing micro-learning to enhance writing skills. The discussion offers a deeper interpretation of the results, integrating student feedback, observational data, and statistical analysis to provide a nuanced understanding of the intervention's impact.

6.2 Pre-service EFL language teachers' knowledge of micro-learning and writing performance before and after the intervention

6.2.1 Pre-service EFL teachers' knowledge of micro-learning

The results indicate that not all the students were familiar with this methodology, most students used social media platforms regularly, such as YouTube, TikTok and Instagram and most students frequently engaged with educational videos. The findings reveal that while the concept of micro-learning was unfamiliar to many pre-service EFL teachers, they frequently engaged with platforms and tools that align with micro-learning principles, such as brief educational content and short videos. This suggests an implicit exposure to micro-learning strategies, even if the terminology and structured understanding of the methodology were not present. Furthermore, it was evident that students were very curious about the concept of micro-learning. Although they were not well-acquainted with the term, their existing practices demonstrated that they were already utilizing micro-learning strategies. They frequently used videos and other brief educational resources in their learning processes, showcasing an ease and enthusiasm for consuming such content.

Moreover, many students expressed satisfaction in receiving these materials directly from their teacher rather than relying solely on their own empirical searches. They appreciated the enriched experience of having curated videos, infographics, and images that effectively summarized key concepts. This underscores the value of integrating micro-learning into formal educational settings, as students found it not only engaging but also highly beneficial when guided by their teacher.

6.2.2 Pre-service EFL teachers' writing performance before and after the intervention

The analysis of students' writing performance before and after the intervention highlights significant improvements. The overall average writing score increased from 3.1 (SD = 0.479) in the pre-test to 4.2 (SD = 0.658) in the post-test, reflecting a marked enhancement in writing quality, particularly in organization,

coherence, and adherence to genre-specific structures. This improvement was statistically significant, as confirmed by both paired-samples t-tests ($t = -9.139$, $p < .001$, $df = 18$) and Wilcoxon signed-rank tests ($z = -3.783$, $p < .001$), indicating that the observed changes were not due to chance.

The progress was particularly notable in specific areas such as headline writing, where the mean score increased from 1.6 to 4.3, and the use of visuals, which rose from 1.3 to 4.3. This improvement can be attributed to the targeted micro-learning strategies that emphasized concise, structured instruction and interactive activities, which effectively engaged students and reinforced their understanding of these elements. These results suggest that students gained critical skills in crafting concise, engaging titles and integrating relevant images to complement their writing. Other aspects, such as grammar, vocabulary, and readability, also showed consistent growth, with scores improving from averages of 3.6 to 4.1 or higher, demonstrating enhanced linguistic proficiency and textual coherence.

This substantial improvement can be attributed to the effectiveness of the micro-learning materials and the structured guidance provided during the intervention. Before the intervention, students faced significant challenges with the genre, particularly in aligning their content with the appropriate structure and purpose. For instance, many students included introductions that lacked clear context or purpose, and conclusions often failed to summarize key points or provide closure, reflecting a misunderstanding of genre-specific expectations. The pre-test revealed frequent errors, such as including irrelevant information and failing to organize ideas logically. However, the micro-learning activities, delivered in concise and targeted formats, helped students recall and internalize the structural components of the genre more effectively. By breaking down complex concepts into manageable segments, the materials facilitated understanding and retention, enabling students to apply these principles accurately in the post-test.

These findings confirm the effectiveness of micro-learning interventions in addressing key writing challenges, fostering a more structured and cohesive writing approach among students. This aligns with findings from studies such as Allela (2021) and Mohammed et al. (2018), which emphasize how micro-learning's concise, targeted format enhances content retention and promotes practical application in language learning. The results underscore the potential of focused, technology-driven methodologies to significantly enhance academic writing skills in EFL contexts.

6.3 Benefits and Challenges of implementing micro-learning in enhancing writing

6.3.1 Benefits of implementing micro-learning in enhancing writing

The analysis of data revealed significant improvements in key writing features such as organization, cohesion, and clarity. These developments underscore the potential of micro-learning strategies to address specific challenges in academic and journalistic writing. One of the most striking findings was the impact

on the organization of texts. Students demonstrated a more systematic approach to structuring their articles, effectively integrating elements such as: headlines, lead, and the main body. This indicates that the concise, targeted nature of micro-learning facilitated the internalization of these structural components. The journal observations corroborated this improvement.

This enhanced focus on structure aligns with the principle of scaffolding, where breaking down complex tasks into smaller, digestible parts—key to micro-learning—promotes mastery of individual components. By learning to prioritize and arrange ideas in a logical order, students not only improved the mechanics of their writing but also developed skills transferable to other communicative contexts.

In terms of cohesion and coherence, micro-learning also proved effective in helping students connect ideas logically and fluidly. Assignments like article design and fanzine creation provided real-world applications where students could practice these skills. This suggests that while students may have possessed prior knowledge, micro-learning strategies strengthened their ability to apply it effectively.

The results further highlight the importance of tailoring content to the communicative objectives of writing. Students reported becoming more aware of their audience, enabling them to adapt their language, tone, and structure to meet readers' needs. This aspect aligns with my observations during group and individual tasks, where many students adjusted their writing to enhance readability and impact. Interestingly, these improvements were not limited to specific activities but extended to the students' overall perceptions of their progress. A recurring theme in their reflections was the sense of achievement and growth, suggesting that the strategies employed fostered not only skill development but also self-confidence in their writing abilities.

This finding aligns with Mostrady's et al. (2024) assertion that methodologies like micro-learning, grounded in Cognitive Load Theory, are effective because they acknowledge the brain's limited processing capacity. Micro-learning mitigates this limitation by breaking content into manageable chunks, reducing extraneous and intrinsic cognitive load. Additionally, incorporating approaches such as active learning and spaced repetition allows students to revisit materials at their own pace, reinforcing learning. This is evident in the group's content engagement, where materials received over 90 views despite there being only 21 students in the group, indicating that many revisited the resources multiple times to deepen their understanding. This process not only contributed to technical improvement but also strengthened self-confidence—a key dimension that, according to Mostradi, is deeply influenced by motivation, which plays a crucial role in the effectiveness of micro-learning.

The survey findings provide additional depth to these observations with 59.1% of students reporting a positive impact on the structure and organization of their articles. This aligns with the qualitative evidence

(Drakidou, 2018) and reinforces the idea that micro-learning helps students break down complex tasks, making them more manageable.

Another noteworthy result was the students' emphasis on the accessibility and practicality of micro-learning. Many highlighted how the concise, periodic content helped them retain key concepts, review material at their convenience, and engage with diverse formats like infographics and videos (31.8% each). This reinforces the role of micro-learning as a flexible and learner-centered approach. However, it is worth noting that motivation was not identified as a significant benefit. While the strategies enhanced technical skills, they may not have been equally effective in fostering enthusiasm or intrinsic interest in writing tasks.

The students' overall evaluation of micro-learning was overwhelmingly positive, with 50% describing it as highly effective and 45.5% as partially useful. Importantly, no participants found it ineffective, underscoring its general success. This finding is particularly encouraging given that micro-learning was introduced as a complementary strategy rather than a replacement for traditional methods.

6.3.2 Challenges of implementing micro-learning in enhancing writing

Despite the numerous benefits demonstrated by micro-learning in developing students' writing skills, its implementation was not without challenges. These obstacles underline the need for careful consideration and strategic planning to optimize the use of this methodology.

One of the most significant challenges was the brevity of micro-learning content. While the concise nature of the materials helped reduce cognitive overload and allowed students to focus on essential concepts, it also limited the depth of coverage for more complex writing topics. For instance, aspects such as mastering formal writing style and correctly using citations and references proved difficult to address fully within the constraints of micro-learning modules. Students often needed more comprehensive explanations and examples to thoroughly understand these advanced concepts, which the micro-learning approach, in isolation, could not entirely provide. This indicates that while micro-learning is effective for introducing and reinforcing key ideas, it may need to be supplemented with in-depth resources, such as extended workshops or guided practice sessions, to ensure a more holistic learning experience.

Another notable challenge was the lack of real-time interaction and immediate feedback. micro-learning activities typically rely on asynchronous engagement, which offers flexibility but can leave students with unresolved doubts or misconceptions. This limitation became particularly evident in activities where students needed clarification on specific points or additional guidance to refine their skills. Although Telegram provided a platform for sharing resources and facilitating discussions, it could not replicate the immediacy of face-to-face interactions or real-time feedback. To address this, incorporating synchronous

sessions or scheduled feedback opportunities could enhance the overall learning process, allowing students to clarify their doubts and reinforce their understanding in a more interactive environment.

Moreover, the success of micro-learning largely depends on students' intrinsic motivation and self-regulated learning behaviors. While many students demonstrated active engagement by revisiting materials multiple times—evidenced by the fact that some resources received over 90 views in a group of only 21 students—not all exhibited the same level of dedication. A small percentage of students expressed indifference toward micro-learning as a primary instructional method, suggesting that individual learning preferences and attitudes play a crucial role in its effectiveness. This variation highlights the need for strategies to foster motivation and sustained interest, such as gamification, recognition of effort, or aligning activities with students' personal goals.

Another logistical challenge involved ensuring consistent access to digital platforms and resources. Although Telegram was generally well-received as an accessible and user-friendly tool, a few students reported difficulties with certain formats or faced external barriers, such as unreliable internet connectivity. This underscores the importance of selecting platforms that are universally accessible, intuitive, and compatible with diverse devices. Providing students with clear instructions on navigating the platform and offering technical support when needed can also mitigate these issues and ensure a smoother learning experience.

Lastly, balancing the integration of micro-learning with traditional teaching methods proved to be a nuanced task. While many students appreciated the complementary role of micro-learning, some felt that certain topics required more extensive coverage during in-person classes. For instance, complex grammar rules or advanced writing techniques could benefit from a blended approach, where micro-learning is used to introduce foundational concepts, and face-to-face sessions are reserved for deeper exploration and practice. Striking this balance is essential to ensure that micro-learning enriches, rather than replaces, traditional instructional methods.

6.4 Concluding remarks

The findings presented in this chapter underscore the transformative potential of micro-learning in enhancing the academic writing skills of pre-service EFL teachers. The study revealed that while students initially lacked familiarity with the formal concept of micro-learning, they were already engaging with strategies aligned with their principles, such as utilizing brief, targeted educational content on digital platforms. The intervention not only bridged this knowledge gap but also demonstrated significant improvements in students' writing performance, particularly in areas such as organization, coherence, and genre-specific adherence.

Moreover, the integration of micro-learning proved to be both engaging and effective, providing students with concise, structured materials that facilitated comprehension and application. However, the challenges identified, including limited content depth, asynchronous engagement, and varying levels of motivation, highlight the need for complementary methods and strategic implementation to optimize its benefits.

These results align with previous studies, affirming the efficacy of micro-learning as a supportive instructional strategy in language education. They also emphasize its adaptability, learner-centered approach, and capacity to address specific learning needs. Ultimately, this chapter contributes to the growing body of evidence advocating for innovative, technology-driven methodologies to enhance writing proficiency in EFL contexts.

Chapter 7 Conclusion

7.1 Chapter overview

This chapter presents the conclusions of the study, summarizing its key findings and discussing their broader implications for the teaching and learning of English writing. It addresses how the use of micro-learning influenced the writing proficiency of pre-service language teachers, reflecting on the benefits and challenges observed during the intervention. The chapter also outlines practical recommendations for educators and academic programs to optimize writing instruction and improve student outcomes. Additionally, it acknowledges the study's limitations and proposes avenues for future research to further explore the potential of micro-learning in language education.

7.2 Main findings and conclusion

This study aimed to examine the impact of micro-learning on the development of English writing skills among pre-service language teachers. As outlined in the research questions, the study sought to explore how micro-learning influences writing proficiency, what students' knowledge, needs, and strengths regarding writing are, and the perceived challenges and benefits of implementing this approach. These questions were designed to address a gap in the literature concerning innovative teaching strategies for writing in the context of teacher preparation programs.

The research is significant because, although micro-learning has been studied in various educational contexts, its application to writing instruction in pre-service language teacher programs remains underexplored. Specifically, the study focuses on students enrolled in the Bachelor's degree in Foreign Languages at Universidad del Valle, where writing proficiency has been identified as a challenging area. By targeting this context, the research contributes valuable insights into optimizing writing instruction for language teacher trainees in Colombia.

To investigate this phenomenon, the study adopted a mixed-methods approach, integrating qualitative and quantitative data collection. Instruments included pre- and post-writing tasks assessed with an analytic scoring rubric, student surveys, classroom observations, and focus group interviews. The implementation phase involved designing and delivering micro-learning interventions tailored to students' identified needs, focusing on aspects such as organization, cohesion, and grammar. This methodological framework enabled a comprehensive analysis of the outcomes, capturing both measurable improvements in writing and the subjective experiences of the participants.

7.2.1 Positive impact of Micro-Learning on Writing Skills

The findings of this study demonstrated that micro-learning had a substantial and multifaceted impact on the development of English writing skills among pre-service language teachers. By introducing short, focused learning modules, the intervention allowed students to engage with specific aspects of writing in manageable increments, leading to significant improvements in areas such as organization, coherence, grammatical accuracy, and lexical variety. These improvements addressed common challenges faced by students, such as difficulty structuring their ideas logically, maintaining a clear flow of thought, and adhering to grammatical conventions.

One of the most notable outcomes was the ability of micro-learning to simplify complex writing processes. Writing, particularly in a second language, often feels overwhelming due to the need to manage multiple elements simultaneously—such as grammar, vocabulary, coherence, and audience awareness. The micro-learning approach addressed this by breaking down these processes into smaller, focused tasks. For example, one activity might target crafting a strong thesis statement, while another focused on creating effective transitions between paragraphs. This incremental approach helped students concentrate on one writing skill at a time, reducing cognitive overload and allowing them to refine specific abilities before integrating them into more comprehensive writing tasks.

The impact of micro-learning was also evident in the improvement of students' confidence in their writing abilities. Before the intervention, many students expressed anxiety and self-doubt regarding their writing skills, often perceiving English writing as an insurmountable challenge. However, the micro-learning activities provided them with opportunities for regular practice, immediate feedback, and measurable progress. These elements contributed to a sense of achievement and motivation, which were critical for sustaining their engagement in writing tasks.

Additionally, the flexibility and accessibility of micro-learning emerged as key factors in its success. The students reported that the concise nature of the modules allowed them to engage with the material even during limited periods of time, making it easier to incorporate writing practice into their busy schedules. The use of digital platforms for delivering the micro-learning content also enabled students to review materials at their own pace, revisit challenging topics, and practice autonomously outside of class. This adaptability proved particularly valuable in addressing individual learning needs, as it accommodated varying levels of proficiency and learning styles within the group.

Another important aspect of the impact was the alignment of micro-learning with the principles of modern pedagogy, such as learner-centered instruction and scaffolding. The iterative nature of the activities mirrored the scaffolding process by building on previously acquired knowledge and skills. For instance, initial tasks might focus on sentence-level accuracy, followed by activities that emphasized paragraph-level

organization and eventually progressed to developing full essays. This progression supported students in gradually mastering complex writing skills, fostering both competence and independence in their writing.

The data collected from students' written tasks further supported these observations, showing measurable improvements in key areas. For instance, post-intervention analyses revealed greater consistency in paragraph structure, more effective use of cohesive devices, and increased grammatical accuracy compared to pre-intervention writing samples. These improvements were complemented by qualitative data from interviews, where students highlighted the practicality and relevance of the micro-learning activities to their academic and professional goals.

In summary, the findings indicate that micro-learning can serve as a powerful complement to traditional methods of writing instruction. Its ability to address specific writing challenges, promote incremental skill development, and enhance student confidence makes it a highly effective approach for fostering writing skills in language education. By integrating micro-learning into their teaching practices, educators can offer personalized, flexible, and engaging learning experiences that cater to the diverse needs of their students. Moreover, its potential to make writing instruction more accessible and student-centered underscores its value as a modern pedagogical tool in the training of future language teachers

7.2.2 Negative impact of Micro-Learning on Writing Skills

While the findings of this study highlight the numerous benefits of micro-learning in writing instruction, they also reveal certain negative impacts and limitations that warrant consideration. These challenges, although not pervasive, underline the complexities of implementing micro-learning in the development of English writing skills among pre-service language teachers.

One notable issue was the potential for fragmentation in the learning process. Since micro-learning divides writing instruction into smaller, discrete activities, some students struggled to integrate these isolated skills into cohesive writing tasks. For instance, while many students showed improvement in specific aspects of their writing, such as crafting topic sentences or using transitional phrases, some found it challenging to apply these skills holistically when composing extended texts like essays. This fragmentation occasionally resulted in disjointed writing that lacked a clear flow or overarching structure.

Another limitation was related to the depth of learning. Due to the concise nature of micro-learning modules, there were instances where complex writing concepts were oversimplified. Some students reported that they needed additional time and more comprehensive explanations to fully grasp certain aspects of academic writing, such as developing strong arguments, employing advanced grammatical structures, or addressing stylistic nuances. The brevity of the sessions, while advantageous for engagement, sometimes hindered a deeper exploration of these critical writing skills.

Additionally, the reliance on self-directed learning in some micro-learning activities presented challenges for students who required more guidance or support. While the flexibility of micro-learning was a strength for many participants, others expressed difficulty maintaining motivation and focus when engaging with the content independently. For these students, the lack of real-time feedback or immediate clarification of doubts led to frustration and, in some cases, stagnation in their writing progress.

Finally, the study revealed that micro-learning's focus on brevity could inadvertently reinforce a surface-level approach to writing. Students sometimes prioritized completing tasks quickly rather than investing the necessary time to reflect deeply on their writing. This tendency was especially evident in their approach to revision, where some students focused solely on correcting isolated errors rather than making substantial improvements to their drafts.

In conclusion, while micro-learning offers numerous advantages for writing instruction, its limitations must be acknowledged to ensure its effective implementation. Educators should strive to mitigate these negative impacts by combining micro-learning with other instructional approaches, such as workshops or mentoring sessions, that allow for deeper engagement with writing concepts. By addressing these challenges, the potential of micro-learning can be maximized to provide a more balanced and effective writing education.

7.3 Implications for writing teaching and learning

The findings of this study reveal several significant implications for the teaching and learning of writing, particularly in the context of pre-service EFL teachers. These implications emphasize the potential of micro-learning to enhance writing instruction, foster student engagement, and address common challenges associated with developing this skill.

For writing instruction, integrating micro-learning into curriculum design emerges as a valuable complement to traditional teaching methods. Concise, interactive, and visually engaging materials allow educators to break down complex writing tasks into manageable steps, making them easier for students to understand and apply. Additionally, the provision of timely and constructive feedback is critical. Teachers should prioritize real-time interaction during writing activities, as this approach helps students clarify doubts, internalize corrections, and improve their performance (reference). The use of digital tools and collaborative platforms to facilitate immediate feedback and peer reviews further enhances the learning process. Another key implication is the importance of emphasizing authentic and practical writing tasks. Activities such as journalistic article writing proved effective in engaging students and linking their learning to real-world contexts. Writing instruction should, therefore, focus on fostering transferable skills through activities with genuine communicative purposes.

In terms of students' writing development, this study highlights the benefits of promoting autonomy and the use of learning resources. micro-learning fosters independent learning by enabling students to access educational materials anytime and anywhere. Encouraging students to use tools like grammar-checking applications, online tutorials, and educational videos support continuous practice and improvement. Moreover, micro-learning has a positive impact on students' motivation and confidence, as seen in their increased engagement and improvement in writing skills. Offering diverse and dynamic materials, such as infographics and videos, sustains student interest and reduces anxiety associated with writing tasks. Finally, writing instruction must address students' organizational and cohesion skills. Activities designed to help students structure their ideas logically and connect them fluidly are essential for improving their ability to produce coherent and well-organized texts.

At the academic program level, adopting micro-learning as a complementary approach to existing instructional practices can benefit academic programs. By dividing complex topics into smaller, digestible components, micro-learning supports students' comprehension while maintaining engagement. Additionally, academic institutions should provide professional development opportunities for teachers, equipping them with the skills to design and implement effective micro-learning materials. Such training ensures the creation of relevant, interactive, and accessible resources that improve the overall quality of writing instruction. Finally, it is crucial for academic programs to address the diverse proficiency levels within classrooms by offering differentiated resources. This approach fosters inclusivity, ensuring that all students can benefit from the materials and activities provided.

In summary, these findings underscore the importance of integrating innovative methodologies like micro-learning to address the varied needs of EFL learners. Incorporating technology-driven, student-centered approaches can make writing instruction more effective, engaging, and aligned with the evolving demands of language education

7.4 Limitations and further research

This study, while providing valuable insights into the role of micro-learning in enhancing the writing skills of pre-service EFL teachers, has certain limitations that should be acknowledged. First, the relatively small sample size of 21 participants may limit the generalizability of the findings to larger populations. Future studies could address this limitation by including a more extensive and diverse participant group to ensure broader applicability of the results.

Second, the study was conducted over a relatively short period, focusing on immediate improvements in writing skills. Although the results indicate significant progress, the long-term impact of micro-learning interventions on writing proficiency remains unexplored. Further research could investigate

the sustained effects of micro-learning on writing development by implementing longitudinal studies that track participants' progress over extended periods.

Another limitation lies in the exclusive use of one digital platform, Telegram, for delivering micro-learning materials. While this platform proved effective, it may not fully capture the potential of other digital tools and platforms. Future research could examine the use of alternative technologies and their impact on writing instruction, exploring platforms that allow for greater interactivity, real-time feedback, or adaptive learning experiences.

Additionally, the study primarily focused on the development of writing skills in a specific academic context. While the findings are valuable for pre-service language teachers, future research could explore the application of micro-learning in other language skills, such as reading, speaking, and listening, to provide a more comprehensive understanding of its benefits in language learning.

Lastly, the study relied on a mixed-methods approach with data collected through surveys, writing tasks, and observations. While this provided a detailed understanding of students' progress, the inclusion of additional qualitative data, such as focus groups or individual interviews, could offer deeper insights into students' experiences and perceptions of micro-learning. Further research could also examine the role of cultural and contextual factors in shaping the effectiveness of micro-learning interventions, as these elements may influence how students engage with and respond to this teaching methodology.

In conclusion, while this study highlights the potential of micro-learning to improve writing skills and foster student engagement, its limitations underscore the need for further research to expand upon these findings. Future studies should aim to explore diverse contexts, larger sample sizes, and additional technological tools to fully understand the scope and impact of micro-learning in language education.

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Appendices

Appendix 1. Informed Consent



Santiago de Cali, Lunes, 12 de Febrero del 2024.

Proyecto: Micro-learning in Fostering Pre-service Language Teachers' English Writing skills

Investigador: Santiago Arias Grajalez

Tutor: Maria Eugenia Guapacha

Consentimiento Informado

Al completar este cuestionario, como alumno/a matriculado en el curso de Habilidades Integradas en Inglés II en la Universidad del Valle sede Meléndez otorgo mi consentimiento para participar en el estudio titulado "Micro-learning in Fostering Pre-service Language Teachers' English Writing skills", implementado por Santiago Arias Grajalez y supervisado por la profesora María Eugenia Guapacha.

El propósito del presente estudio es investigar la efectividad de la metodología de micro-learning en la mejora de las habilidades de escritura en inglés de estudiantes de pregrado de lenguas extranjeras. Consiste en un estudio cuasi-experimental de 8 semanas de duración basado en un diseño de medidas repetidas. Se implementará con un grupo intacto de aproximadamente 25 estudiantes del curso Habilidades Integradas II de la Licenciatura en Lenguas Extranjeras con énfasis en Inglés y Francés en la Universidad del Valle.

Entiendo que mi participación implicará:

La realización de actividades de micro-learning, que pueden incluir la visualización de videos cortos, la escucha de podcasts o la participación en actividades interactivas, diseñadas para mejorar mis habilidades de escritura en inglés. La realización de tareas de escritura en inglés, tanto antes como después de la implementación de las intervenciones de micro-learning, con el fin de evaluar el impacto de estas intervenciones en mis habilidades de escritura. La participación en encuestas, observaciones en el aula y entrevistas, con el objetivo de recopilar información sobre mis percepciones, niveles de compromiso y experiencias con respecto al micro-learning y su impacto en mis habilidades de escritura en inglés.

Entiendo que la naturaleza de este estudio implica mi participación en actividades relacionadas con el micro-learning, así como la evaluación de mis habilidades de escritura en inglés. Estas actividades harán parte del desarrollo del curso en las que todos los estudiantes participarán. Estoy de acuerdo en participar y contribuir con mis datos para propósitos pedagógicos, académicos e investigativos que beneficiarán mi proceso de aprendizaje y al programa académico de la Licenciatura en Lenguas Extranjeras. Comprendo que tengo el derecho de retirar mi consentimiento en cualquier momento sin consecuencias negativas para mi situación académica.

Entiendo que se mantendrá la confidencialidad de mi información personal y los datos recopilados durante el estudio, y que estos solo serán utilizados con fines de investigación. Entiendo que puedo hacer preguntas en cualquier momento sobre el estudio, sus objetivos, procedimientos y cualquier otro aspecto relacionado con mi participación. Además, entiendo que puedo comunicarme con el investigador principal en caso de tener alguna preocupación o pregunta adicional sobre el estudio.

Al aceptar confirmo que he leído y comprendido la información proporcionada, y que doy mi consentimiento para participar en el estudio de acuerdo con los términos descritos anteriormente.

- I accept

Appendix 2. Researcher's Journal (Sample)



Seminario de Práctica Docente II

Tabla de observaciones

Santiago Arias Grajalez.

Habilidades Integradas en Inglés II

Maria Eugenia Guapacha (Directora de Práctica)

Semana 1

4h de intervención

Descripción	Reflexiones
Presentación del proyecto (Febrero 12, 2024) Durante la primera sesión de intervención, mi participación en el aula se centró en la presentación de mi proyecto de investigación sobre Micro-Learning. Comencé contextualizando lo que es la investigación por lo que realicé una actividad interactiva utilizando Mentimeter para involucrar a los estudiantes, quienes aportaron palabras clave relacionadas con la palabra “research”. Posteriormente, se comenzó a hablar sobre la importancia de mi investigación, explicando cómo surgió la idea y su relevancia en el contexto del aprendizaje de la escritura haciendo uso de las redes sociales. Destaqué mi interés genuino en el tema y cómo esto influyó en la selección del tema de investigación. Luego, introduje la metodología de la investigación y revisé los estudios actuales relacionados con micro-learning, haciendo hincapié en la necesidad de investigación en este ámbito en Colombia, especialmente en el contexto universitario, para comprender mejor las necesidades de los estudiantes. Posteriormente, los estudiantes completaron un formulario que incluía un consentimiento informado y un análisis de necesidades. Este último recopila datos demográficos, hábitos de escritura, conocimiento sobre Micro-learning y el uso de recursos educativos digitales. Finalmente, se abrió un espacio para preguntas, donde se discutieron aspectos tanto de la investigación como de la dinámica del curso. La sesión concluyó con la explicación del plan para continuar la investigación a través de un grupo de Telegram.	
Pre-Test (Febrero 14, 2024) En la segunda sesión, se llevó a cabo el pre-test mediante	Durante la actividad, observé que solo una estudiante optó por escribir todo a mano antes de

la creación de un documento en Google Docs para cada estudiante, donde se presentó el prompt que consistía en simular ser periodistas del periódico La Palabra de la Universidad del Valle, cubriendo un evento en el barrio San Antonio. Los estudiantes tuvieron alrededor de una hora y media para redactar aproximadamente 500 palabras.	pasar su trabajo al Google Docs, lo cual no estaba dentro del objetivo de la actividad. Al abordar este caso, la estudiante explicó que le resultaba más fácil generar ideas y comprender lo que estaba escribiendo al hacerlo a mano en lugar de en un dispositivo móvil. Esta situación me llamó la atención y generó reflexión sobre los diferentes métodos de escritura preferidos por los estudiantes. La sesión transcurrió sin contratiempos, y al final se ofreció un refrigerio a los estudiantes, quienes disfrutaron del momento. Se realizaron algunas preguntas informales a los estudiantes, destacando sus impresiones y las dificultades encontradas durante la redacción, especialmente relacionadas con la estructura y la organización del texto. Muchos estudiantes expresaron dificultades para conectar las oraciones y comprender la secuencia adecuada en la redacción del artículo.
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Appendix 3. Interview with the teacher

Saludo y explicación del propósito del estudio.

Investigador: ¿Usted cómo cree que es la mejor manera en que este grupo aprende?

Profesor: De una manera más visual. Ellos son muy visuales. Por eso que le hizo dar todo el tablerito. Yo les hago dibujos y les hago vainas. Les saco presentaciones con imágenes. Y hago asociación de imágenes con frases, con vocabulario. Este grupo en general es muy visual.

Investigador: Ya pasando como a los temas como más del grupo. ¿Usted cómo percibe la motivación de los estudiantes? Específicamente en la escritura.

Profesor: A ellos les cuesta escribir porque no es el fuerte. Y es muy chévere que hayas enfocado el trabajo en esa parte. Porque sí se requiere, se requiere mucha práctica en cuanto a la escritura. A ellos, cuando uno les dice, bueno, vamos a hacer este tipo de trabajo escrito. Digamos que no se motivan mucho. Entonces, como esto es inglés uno, obviamente pues hay que hacerles escritura académica y todo. Pero también combinarla con otro tipo de escritura, ¿no? Como escritura de historietas o cosas que sean más significativas para ellos.

Investigador: Sí, más creativas.

Profesor: Ajá.

Investigador: Entonces, teniendo esto en cuenta que a ellos se les hace más difícil. ¿Usted cómo fomenta la participación de ellos?

Profesor: ¿En cuanto a la escritura?

Investigador: Sí.

Profesor: Pues como te digo, obviamente dándoles algún tipo de incentivo en nota. A veces hasta con un dulce, una banana, cosas así. A veces traigo al salón y el primero que acabe o el que gane entre todos escogemos el ganador. Y pues sí, puede ser de esa manera. Pero lo que siempre les digo es más motivándolos desde la parte de lo importante que es la escritura para su proceso de formación. Que ellos van a tener que escribir un trabajo de grado, van a tener que escribir cuando estén trabajando cantidad de correos, van a tener que escribir planes de curso, van a tener que escribir planes de clase. Entonces, los incentivo de esa manera en que la escritura, más que algo forzoso o que tengan que hacerlo por obligación, que sea algo que ellos disfruten y que entiendan que es algo que le van a necesitar escribir bien en el futuro.

Investigador: Profe, ¿cuál es su percepción en cuanto a la escritura en inglés de los estudiantes?

Profesor: Es regular, es regular. No es pésima, pero tampoco es buena. Están en un nivel inicial. Digamos que hay, por ejemplo, un chico, William, él escribe, y él hace hasta poema y todo. Él es bueno escribiendo. Pero es como un caso especial. Los demás, es muy básico. Y ellos son buenos hablando, como lo han visto, la mayoría hablan para hacer un inglés uno. Excepto como tres o cuatro estudiantes que están como en básico. Los demás son muy buenos hablando. Pero cuando escriben, cometen varios errores. Por ejemplo, she don't like tal cosa, o I doesn't like, o she like to speak. Entonces cometen unos errores que seguramente se pueden arreglar fácilmente.

Investigador: Igualmente es el primer nivel, no hay que ser tan duro con ellos.

Profesor: Pues hay que exigirles, pero no tirarles, pues, no a matar. Porque Isabela como a la tercera o cuarta clase ella se quebró y empezó a llorar, ¿no? Ella lloró y se me acercó a mí, o que no, que ya había equivocado de carrera, que no entendía nada. Entonces pues yo la motivé, le dije, no, ¿cómo es que te ocurre? Sabes, vos estás en un proceso, apenas estás iniciando. Dice, mira, antes de la tercera clase. Ah, dale con todo y vas a ver que al final del semestre... Y ella ha mejorado, ha mejorado mucho. Porque ella cuando entró... Ni una palabra. Nada, absolutamente nada. Ni siquiera hello, pues. Nada, absolutamente nada.

Investigador: ¿Pero ella no venía con un conocimiento antes?

Profesor: No, ella salió de un colegio público, nunca hizo un curso de inglés, y entró directo a la carrera. Entonces le ha pegado muy duro, le ha dado muy duro. Pero yo la trataba de acompañar y hacerle el acompañamiento y motivarla. Y creo que ha mejorado bastante, creo que ha mejorado bastante. Ella se hace más cerca, me hace preguntas. En algunas ocasiones yo los dejo ir, por decir, a las 10:40am, y yo me quedo con ella y con Daniela y les explico, pues, como más a fondo lo que estamos viendo.

Investigador: Ah, super.

Profesor: Sí, claro...

Investigador: Esa es la siguiente pregunta, ¿Qué técnicas usted tiene para mejorar la escritura en ellos? Pues, ¿se queda aquí con algunos?...

Profesor: Sí, me quedo aquí con algunos, me quedo aquí con algunos. Pero también, yo siempre les hago el modeling, el ejemplo. Entonces, si vamos a escribir, yo siempre escribo en el tablero primero algo, y cuando los saco al tablero a escribir, les corrijo las comas, les corrijo los puntos finales, les corrijo hasta los palitos de la i, el puntito de i, les corrijo absolutamente todo. Digámoslo de una manera jocosa, pero pues que ellos entienden que es así, entonces yo les digo, listo, a veces les digo, juguemos al examen. Escriban tal cosa, entonces ellos escriben, escriben, escriben, entonces yo luego les corrijo. ¿Les quedó bueno o les quedó mal? Digamos que gramaticalmente la escritura puede estar buena, pero digo, no está malo, uno no tiene punto final, uno no tiene coma, que es esa porquería. Entonces, después todos se ríen, pero pues al final se hace el ejercicio de corrección. Entonces, de esa manera, digamos que siempre los motivo a escribir bien. Les digo, en un Whatsapp, cuando usted está chateando con alguien, está chateando con una persona extranjera y usted está escribiendo bien feo, eso no tiene presentación. Entonces, así es, trato de motivarlos.

Investigador: ¿cómo buscan para mantener ese interés constante, así como cómo se van a comunicar con otra persona.

Profesor: Por ejemplo, pues, dándoles ejemplos reales de cosas que han pasado, hasta en español también. En español, una vez en un periódico conocido, decía algo como suicidio mortal. Entonces, digo, analice la frase, o sea, se suicidó tanto que se mató, pues, no tiene sentido. Digo, ¿qué tal usted más adelante como profesor y escribiendo con coherencias de esas? No, usted tiene que tener una escritura impecable.

Appendix 4. Initial perception questionnaire for students

UNIVERSIDAD DEL VALLE
FACULTAD DE HUMANIDADES
ESCUELA DE CIENCIAS DEL LENGUAJE

SECTION A: Información sobre uso de internet y dispositivos inteligentes.

Las siguientes preguntas se refieren a su nombre, su edad y algunas preguntas sobre el uso que le da al internet y los dispositivos inteligentes

1. Nombre y Apellido: _____
2. Escriba su edad: _____ años
3. ¿Con qué frecuencia tienes acceso a Internet en tu lugar de estudio y residencia principal?
Todos los días.
Algunas veces a la semana.
Una vez a la semana.
No tengo acceso a Internet en mi lugar de estudio o residencia principal.
4. ¿Qué dispositivos tienes disponibles para acceder a recursos en línea? (Selecciona todas las opciones que apliquen)
 - Computadora de escritorio
 - Computadora portátil
 - Teléfono inteligente
 - Tablet
 - Otro (especifica): _____
5. ¿Para qué sueles utilizar tu teléfono inteligente o tableta? (Selecciona todas las que apliquen)
 - Acceder a redes sociales como Facebook, Instagram, TikTok, Whatsapp o Telegram.
 - Navegar por Internet para buscar información o entretenimiento.
 - Ver videos en plataformas como YouTube o Netflix.
 - Leer libros electrónicos o artículos en línea.
 - Utilizar aplicaciones educativas para aprender nuevos temas.
 - Otros (especificar): _____
6. ¿Qué dispositivos utilizas para escribir contenido en línea? (Selecciona todas las opciones que apliquen)
 - Computadora portátil / PC
 - Teléfono móvil / smartphone
 - Tableta
 - Otros (especificar): _____

SECTION B: Percepciones sobre la escritura en inglés

Las siguientes preguntas indagan sobre su percepción sobre la escritura en inglés.

1. ¿Qué nivel de habilidad consideras que tienes en la escritura en inglés?
Tengo dificultades importantes para escribir en inglés correctamente

Puedo redactar textos básicos pero cometo errores
Me manejo muy bien en la escritura en inglés con pocos errores
Tengo un completo dominio de la escritura en inglés

2. ¿Qué tipo de textos escribes en inglés con mayor frecuencia? (Selecciona todas las opciones que apliquen)
- Correos electrónicos
 - Ensayos académicos
 - Mensajes en redes sociales
 - Comentarios en redes sociales
 - Artículos o blogs
 - Otro (especifica): _____
3. Por favor, comparte tu opinión sobre la frecuencia con la que escribes en inglés en tus clases. Marca la opción que mejor refleje tu experiencia:
- Escribo en casi todas las clases.
 - Escribo con regularidad, pero no en todas las clases.
 - Escribo ocasionalmente en algunas clases.
 - Raramente escribo en mis clases.
 - No escribo en absoluto en mis clases de inglés.
4. Por favor, marca las áreas en las que te sientes más seguro/a o se te facilita más en la escritura en inglés. Puedes seleccionar una o más opciones:
- Expresar ideas de forma creativa
 - Organizar ideas de manera lógica
 - Escribir oraciones gramaticalmente correctas
 - Explicar ideas con claridad
 - Estructurar párrafos coherentes
 - Otra (por favor especifica): _____
5. Por favor, marca las áreas que encuentras más desafiantes en la escritura en inglés. Puedes seleccionar una o más opciones:
- Organización y cohesión del texto.
 - Ortografía y puntuación.
 - Organización de ideas en ensayos argumentativos o de opinión.
 - Expresión de ideas de manera clara y efectiva.
 - Otra (por favor, especifica): _____.

SECTION D: *Percepciones sobre micro-learning*

Las siguientes preguntas indagan sobre su percepción sobre el uso de micro-learning en el aprendizaje del inglés.

1. ¿Estás familiarizado/a con el concepto de micro-learning?
- Sí, estoy completamente familiarizado/a.
 - He escuchado sobre ello, pero no estoy muy seguro/a de qué se trata.
 - No, nunca he oído hablar de micro-learning antes
2. ¿Te has encontrado con contenido educativo que se presente en formatos cortos y fáciles de consumir, como videos cortos, mini-lecciones o actividades interactivas?
- Sí, con frecuencia.
 - Sí, algunas veces.
 - No, rara vez o nunca.

3. ¿Has utilizado alguna red social que te ofrezca contenido educativo breve y específico para aprender o practicar algo nuevo?
 - Sí, regularmente.
 - Sí, en ocasiones.
 - No, nunca he utilizado una aplicación o plataforma de este tipo.
4. ¿Cuál? _____
5. ¿Has usado videos educativos cortos en plataformas como YouTube o redes sociales que te hayan ayudado a aprender algo nuevo?
 - Sí, con frecuencia.
 - A veces, ocasionalmente.
 - No, rara vez encuentro este tipo de videos.

SECTION D: Recursos

Las siguientes preguntas indagan sobre su percepción sobre los recursos que utiliza para la mejora de su escritura en inglés.

1. ¿Has participado en grupos o canales en línea donde puedas discutir temas relacionados con tus estudios o recibir ayuda de otros estudiantes?
 - Sí, con regularidad.
 - Sí, de vez en cuando.
 - No, nunca he participado en grupos de este tipo.
2. ¿Te resultaría útil tener acceso a recursos educativos compartidos por tus profesores o compañeros a través de una aplicación de mensajería?
 - Sí, definitivamente.
 - Tal vez, depende del tipo de recursos.
 - No, prefiero otros métodos para acceder a materiales educativos.
3. ¿Qué estrategias utilizas para mejorar tus habilidades de escritura en inglés? (*Selecciona todas las opciones que apliquen*)
 - Consulta de diccionarios en línea.
 - Corrección de texto por parte de compañeros.
 - Aplicaciones o programas de corrección gramatical.
 - Aprendizaje mediante tutoriales en línea.
 - Otro (especifica): _____
4. ¿Qué recursos utilizas específicamente para aprender a escribir en inglés? (*Selecciona todas las que apliquen*)
 - Videos educativos sobre escritura en inglés
 - Podcasts sobre escritura en inglés
 - Infografías que explican técnicas de escritura en inglés
 - Aplicaciones móviles diseñadas para mejorar la escritura en inglés
 - Plataformas en línea que ofrecen recursos para la escritura en inglés (por ejemplo, Grammarly, Hemingway App)
 - Libros de texto enfocados en la escritura en inglés
 - Clases presenciales centradas en la escritura en inglés
 - Otros (especificar): _____

Thanks for your participation!



Appendix 5. Pre-test writing task

Writing Prompt

PRE-TEST

You are a reporter working for La Palabra newspaper at Universidad del Valle. Write a detailed report about a cultural event that took place in the neighborhood of San Antonio in Cali. Describe the atmosphere of the neighborhood, its history, and its cultural importance to the city. Then, cover the cultural event, whether it's a craft fair, a music festival, or a street art exhibit. Cite some quotations from residents to gather different perspectives on the event and its impact on the community.

Appendix 6. Analytic Scoring Rubric

	SCALE				
Criteria	5 (outstanding)	4 (Very good)	3 (Good)	2 (Need improvement)	1 (Low Performance)
Headline	The headline and subheadline are informative, short, clear, concise, relevant, and related to the article's subject matter	The headline and subheadline are clearly related to the main topic of the article, although they could be more specific.	The headline and subheadline are related to the main topic but seem to have no direct connection to it.	The headline and subheadline are related to the main topic, but seem to have no direct connection to it	The headlines and subheadlines are missing.
The lead	Indicates a very complete description of the details. Provides clear and detailed answers to all the basic questions about the item (who, what, when, where and how). (why)	Indicates a good description of the details. Clearly answers all the basic questions in the article, with some minor details missing.	Indicates a satisfactory description of the details. Answers most of the basic questions in the article.	It provides an overview of the details, although some answers to basic questions may be vague or incomplete.	Indicates a poor description of details. Does not adequately answer the basic questions of the article.
The body	All the arguments presented are concrete, supported by relevant sources and relevant to the subject of the article.	Most of the arguments are solid and supported by relevant sources, although some could be more specific or detailed in their support.	The arguments presented are mostly sound and relevant to the subject of the article, although they may lack sufficient source support in some cases and could be more specific.	Some arguments are concrete and supported by sources, but others lack evidence or are not directly related to the content of the article.	The arguments presented are biased/ not present and not very relevant to the topic of the article.
The tail	Provide significant additional	Offer relevant additional	Some additional details,	A brief wrap-up is provided,	It is absent or extremely brief,

	details, relevant context, or further reflections that enrich the news and offer a clear and satisfactory conclusion.	details that complement the news, although the conclusion could be more explicit or detailed.	context, and reflections are provided, though they may be somewhat limited in scope or depth. The conclusion lacks some depth or clarity.	but it lacks significant additional details or fails to offer a clear conclusion.	providing no relevant additional information or satisfactory conclusion to the article.
Visuals	Two or more photographs directly related to the content of the article are included, with their respective description (caption).	A photograph is included that adequately complements the content of the article although it could be more relevant. No caption present.	A photograph related to the content of the article is included. Although they provide some visual interest, their relevance to the story may be somewhat confusing. No caption present.	A photograph is included, but its relevance to the content of the article is limited and not relevant. No caption present.	Photographs are non-existent, do not relate to the content of the article and are not relevant. No caption present..
Style	Uses a register and formality entirely appropriate for a university audience. Avoid contractions, abbreviations, slang or informal expressions. Maintains an impersonal, academic style at all times.	The register and formality are acceptable for a university audience, although with occasional slips in colloquial expressions or contractions. The style is mostly impersonal and academic.	Frequently uses an informal register or colloquial/jargon expressions inappropriate for a college audience. The style is verbal and lighthearted in several sections.	The register and formality are acceptable for a university audience, although with occasional slips in colloquial expressions or contractions. The style is mostly impersonal and academic.	Consistently uses a register that is too informal, with abundant contractions, slang, colloquial expressions that are inappropriate for a university audience. A highly verbal and casual style predominates.
Grammar	The article is virtually error-free, with only very minor errors in vocabulary or grammar that barely affect the comprehension of the text.	Very few syntactical errors, not affecting meaning. Very few sentence structure or punctuation errors. Some complex grammatical	Some important syntactical errors affecting meaning. Some sentence structure or punctuation errors affect meaning and	Frequent important syntactical or sentence structure / punctuation errors, affecting local or global meaning frequently. Capitalization	Excessive important syntactical and sentence structure / punctuation errors affecting local and global meaning to the point of incomprehensibility.

		structures are present.	make reading difficult. Capitalization frequently missing. Very few complex grammatical structures; predominance of basic structures.	frequently missing. No complex grammatical structures; absolute predominance of basic structures.	No capitalization. No complex grammatical structures; predominance of basic structures with very frequent errors.
Vocabulary	No errors of word usage and form; wide variety of vocabulary and expressions.	Very few errors, not affecting local or global meaning; Some complex vocabulary and expressions are present.	Some important errors of word usage and/or form affecting global or local meaning; Very few complex vocabulary and expressions; predominance of basic vocabulary	Frequent errors affecting deeply global or local meaning; No complex vocabulary and expressions; absolute predominance of basic vocabulary with form or meaning errors	Very frequent errors of word use and form deeply affecting global or local meaning; No complex vocabulary and expressions; predominance of basic vocabulary, with frequent form or meaning errors
Readability	The text is very easy to read. Smooth flow of content development not requiring stopping to re-read or check sequence of ideas. The reader enjoys the reading.	Easy to read; requiring very few stops to re-read or revise sequence / connections.	Overall easy to read but requiring re-reading at several points.	Not easy to read. Meaning/sense often obscure, requiring frequent re-reading.	Not easy to read at all. Meaning/sense often obscure and cannot be recovered,
Text length	The text is between 400-500 words	The text is between 300-399 words	The text is between 200-299 words	The text is between 100-199 words	The text is between 99-0 words

Appendix 7. PBL lesson plan

TOPIC: Univalle Through the Eyes of a Journalist

COURSE: Habilidades Integradas en Ingles II

LEVEL: B1.1 (according to the CEFR and the micro-curriculum of the course)

TIME: 16 hours - 8 classes of two hours each.

CLASS SIZE: 22 students

FINAL PROJECT: Students will create a zine, integrating curriculum topics and creative expression. They will select a topic, conduct research, write, design, and present their zine.

OBJECTIVES

Functional objectives:

- **Listening:** SS will be able to understand news and reports, identifying key information, and relevant details.
- **Reading:** SS will be able to identify bias in the news and recognize fake news, developing critical skills in reading and analyzing news.
- **Writing:** SS will be able to plan and write news to be included in the fanzine, applying the structures and characteristics of journalism.
- **Speaking:** SS will be able to participate in discussions about news and current events in Cali.

Linguistic objectives:

- **Grammar**
 - Students will practice constructing sentences using appropriate verb tenses to describe past and present events when discussing news stories and planning their own newspaper articles.
 - In analyzing journalistic texts and discussing the ethics and functions of journalism, students will recognize and use the passive voice to describe actions and events in a neutral manner.
- **Vocabulary:**
 - Students will learn and use specific terms related to journalism, such as:
 - journalistic genres (news, reports, interviews)
 - topics (politics, sports, culture, science)
 - media (print, radio, television, digital media),
 - journalistic ethics
 - newspaper structure, (headline, subheadline, caption, lead, body, tail)
 - words and phrases related to the introduction of news, explanation of events, description of images, etc.
 - Practice the use of expressions and vocabulary to discuss various aspects of journalism, present ideas, argue and express opinions in a coherent and persuasive manner.

Subject-matter objectives:

- Share and discuss their perceptions of journalism, including genres, topics, media, ethics and technology.
- Identify and discuss the different facets of journalism, including its functions, impact on society and the media used.
- Identify and discuss the characteristics that make a news article effective and understandable, such as objectivity, timeliness, relevance, and impartiality.
- Develop critical analysis skills by examining and understanding different types of journalistic texts.

Intercultural objectives:

- Reflects on local and international current events from a cross-cultural perspective.
- Appreciate and respect cultural and social diversity by researching and discussing issues related to their community, neighborhoods, and global problems.

Session 1
Session objectives
Students will be able to: • Understand the structure and purpose of the final project of creating a fanzine, as well as its relevance within the course context. • Identify the functions, impact and means of the concept of journalism through a mind-mapping activity. • Discuss various aspects of journalism, including journalistic genres, topics, media, ethics, and technology, in preparation for the writing and design tasks of the fanzine
<u>Class Slides</u> Activity 1: Project presentation Survey results - Present the overall results of the initial survey to the students. Show relevant graphs/data and discuss what they indicate about students' prior knowledge and attitudes about the topic. Project presentation - It will briefly show what the idea of the final product of the intervention will consist of, how it relates to the curriculum, and the ultimate goal of creating a zine. The relevance of the project to increase student engagement will be highlighted. - We will also discuss the topic that the students want to cover in their zines, asking them the following question: <i>"For this project, we need to select a central theme for our news articles. What theme do you think would be most interesting and relevant? Should we focus on the university community, our neighborhoods, global issues, or another topic of interest?"</i> - Also, students are invited to join the telegram group in which micro-learning material will be shared. Activity 2: "Mind map of journalism". - Students will be asked to write "journalism is" in groups on a sheet of paper and among themselves begin to construct what journalism is for them. - The objective of this activity is to identify the students' knowledge and how much they know about journalism in order to move on to the next activity and provide solutions to the questions they have.
Session 2
Session Objective(s)
Students will be able to: • Present their understanding of the concept of journalism and share ideas about various aspects of journalism, including genres, topics, media, ethics, and technological influences. • Discuss the essential characteristics that news articles should possess, such as objectivity, timeliness, relevance, impartiality, and genre diversity, while also exploring the functions of news articles in fostering reader interpretation and dialogue. • Analyze journalistic where they will identify the type of text, topic, sources, and journalistic techniques, fostering critical thinking and comprehension skills.
Activity 1: "Journalism is..." - Students will present what they started last class regarding what journalism is for them. Also, students are invited to share ideas about different aspects of journalism, such as journalistic genres (news, reports, interviews, chronicles, etc.), topics (politics, sports, culture, science, etc.), media (print, radio, television, digital media, social networks, etc.), journalistic ethics, technology and its impact on journalism, among

others.

Activity 2: Features discussion

- Students will be asked about what characteristics they think a news article should have. For example, that it must be objective, current, relevant, unbiased, with genre variety. Also, there will be a discussion about the functions that news articles can have, for example: helping the reader reach their own interpretation, fostering dialogue, as well as the impact it has on shaping the reader's opinion.

Activity 3: Exploratory activity: analysis of journalistic texts [News recognition](#)

- In groups, students are given examples of various journalistic texts. They analyze the type of text, topic, sources, journalistic techniques and express opinions taking into account some questions which will elicit some outcomes related to the features we talked about. Encourages critical analysis and comprehension of journalistic texts.

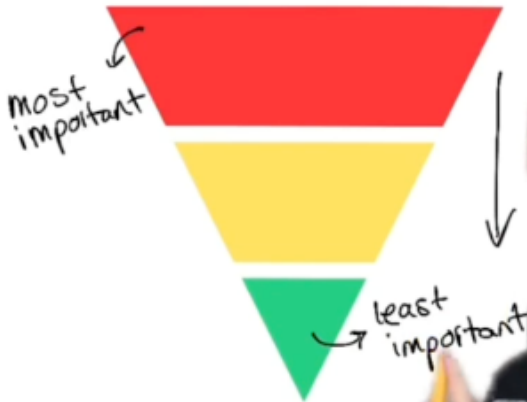
Teacher note: They will be given clear instructions on what to observe, compare and analyze.

Appendix 8. A sample of micro-learning activities

0:14

Structure of a News Article

- **Headline** - main heading of an article.
- **Byline** - name of the author.
- **Lead (5W + H)** - summary of main events.
- **Details** - facts, quotes, interviews, etc.
- **Conclusion** - summary and final thoughts.



most important

least important

and to be clear and direct with your language

TOP TIPS ✓

- Use short paragraphs and vis
- Use clear and direct language.

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